



To Your Good Health

4-H
Ontario

4-H Ontario
Project Manual for Members and Leaders
September 2007





The 4-H Motto

“Learn to Do by Doing”

The 4-H Pledge

“I pledge
My HEAD to clearer thinking,
My HEART to greater loyalty,
My HANDS to larger service,
My HEALTH to better living,
For my club, my community, and my country.”

The 4-H Grace

(Tune of Auld Lang Syne)

We thank thee Lord, for blessings great
on this our own fair land.
Teach us to serve thee joyfully,
With head, heart, health and hands.

4-H Ontario Vision

We will be recognized for delivering quality, innovative, and sustainable, leadership and life skill programs for youth and volunteers; which will benefit the citizens and communities in which they live.

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To Your Good Health - Table of Contents

Introduction - How to Use this Manual	1
We are What We Eat: Nutrients, Fact Sheets	3
Grains	22
Vegetables and Fruits (Five to Ten Day Challenge)	26
Dairy Products and Alternatives	32
Meat and Alternatives (Tofu, Legumes)	37
Fats	43
Vegetarian Diets	49
Fast Food / Junk Food	58
Pizza Please	65
Bravo for Beans	70
Breaking the Fast	80
Cool Lunches	83
Snacks	87
Dieting versus Healthy Choices	89
Feeling Good About Yourself	98
Salad: a Smorgasbord of Science (Hydroponics)	109
Biotechnology - Genetic Modification	121
Fight Bac - Food Safety	126
Food Labeling - Food Claims, Packaging	150
What is in Your Grocery Cart? - Advertising, Grocery Store Tour	165
Recipe Modification: Small Changes, Big Pay Offs	173
Fitness and Exercise - The Vitality Approach	179



Introduction - How to Use this Manual

The 2005 Royal Agricultural Winter Fair exhibit “To Your Good Health” inspired this project. This was a new initiative that involved the Royal and a committee of industry, government, health professionals and researchers. This is a three-year initiative at the RAWF aiming at helping the public make better choices that will lead to a better and healthier life.

The focus of this project and the 4-H project is threefold:

1. Healthy Eating
2. Fitness and Exercise
3. Self Image

The 4-H manual "To Your Good Health" has been written in a format of many different topics. *The club and volunteers decide what topics, combination of topics or themes that the club meetings will follow.*

Ideally each meeting would incorporate sections on each of the three pronged approach: **healthy eating, fitness and body image**. These do not need to be the topic pages but could be incorporated as an activity (cooking a healthy snack), a game that boosts self-image, and an exercise stretch at break time. The combinations are as endless as the topics.

There are many fact sheets and activity sheets available from the Internet for free distribution - some of these have been included in the manual. As a volunteer you may not want to copy all of the material in the manual for the members, rather perhaps just some pertinent fact sheets or activity sheets. The resources include many interactive Internet activities. Many of the listed resources are available from producer groups. There are many links to other organizations that can be twinned for activities and programs.

Throughout the manual and at the end you will find references where members can obtain additional information on the topic if desired. Youth leaders and senior members are encouraged to “dig deeper” with **In Depth** activities whenever possible to enhance their knowledge, and take a leadership role whenever possible in bringing the additional information back to the club.

To prepare manuals for the members:

- Read over the manual and decide which categories and topics you would like to use to make the To Your Good Health project a good fit for your members at this time. We have marked pages that we think would be of particular benefit to members with the  icon.
- Print or photocopy the information sheets and activity sheets that you require. Distribute the information sheets either as a complete manual at the beginning of the club or as smaller units before each meeting.
- Have fun, enjoy the project and remember each time you lead this project it can be different by choosing to focus on different information sheets and activities within the manual. Not all of the content of this manual needs to be covered in one project.
- When facilitating this project for the first time, keep track of what went well, and what you would change for the next time because each time the project is taught, the content of the meetings can be different!



Achievement Activities

- Sponsor a "To Your Good Health" fair at a local community centre, school or mall. Include other groups, organizations and producers.
- Create and install an interactive mall display.
- Have members give a presentation at school for parent night or open house.
- Challenge members of your club, or your club and another club to use a pedometer for a week or a day: who walks the farthest? Perhaps a company would provide the pedometer(s). Write a story about the experience and submit it to 4-H Ontario Magazine, or your local media!
- Twin with an urban school, centre or youth group for an activity day.
- Run weekly / monthly articles in local forum or newspaper on the topic of "To Your Good Health," focusing on the three main topics of healthy eating, fitness and exercise, and self-image.
- Participate in the Royal Agricultural Winter Fair "Journey to Your Good Health" - be part of the session or simply attend.
- Contact other community groups and work with them on a community awareness project.
- Follow up on a similar idea conceived by your club.





We Are What We Eat

Roll Call: Do you eat 3 meals a day?

Answer to Roll Call:

ACTIVITIES

1. Have the members brainstorm using a flipchart, or individually on a piece of paper what affects the choices they make regarding what foods they eat (peers, parents, ads, ethnic factors, celebrations, etc).
2. Have members record what they have eaten the past day. This can be assessed by going to: www.dietitians.ca. Look at EATracker and it will calculate the daily caloric intake and give suggestions for improvement. This is a great, very interactive site.
3. Have members give examples of a healthy diet - or, bring in a range of foods and have them physically select items that would make up a healthy diet for a day.
4. Have members complete the Food and Physical Activity Chart activities - instructions and worksheets on the following pages.
5. Brainstorm the reasons for the creation of the 4 food groups. What major nutrients are in each of the food groups (check the chart on page 8 for details, or page 158 for a different format).
6. Have members think of different ways the food groups can be combined (e.g. pizza, chili, pork and beans, soups, stew, sandwich, etc). Identify the food groups included.
7. Have members take the 5-to 10-a-day-challenge. See: www.5to10aday.com. This is a wonderful interactive site; Unlock Your Colours categorizes foods according to colour, click on a colour and it gives details about that colour and foods in that group, as well as providing colour coded recipes. More information and activity sheets are available on this site.
8. Have members complete the Colour Tracking Chart (on page 12)

ACTIVITIES: In Depth

1. Have member look at Food Guide in terms of different nationality. Using the Internet or other resources they can find, have them research if other international Food Guides exist.
2. Senior Activity - The new Canada's Food Guide was released in the fall of 2006. Have members compare the new and the old versions, using the instructions and activity sheet on the following pages.

Resources:

- For more great activity suggestions, resources and information on Canada's Food Guide, you can download or order *Eating Well with Canada's Food Guide - A Resource for Educators and Communicators*, at: http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/index_e.html, by emailing publications@hc-sc.gc.ca, or by calling 1 800 O-Canada (1 800 622-6232).
- Visit the Canada Agricultural Museum web exhibit, Food For Health, at <http://www.agriculture.technomuses.ca/english/FoodForHealth/AreYouWhatYouEat/index.html>
- The City of Ottawa has lots of public health info online, including active living and nutrition - http://ottawa.ca/residents/health/atoz_en.html#P536_3774



ACTIVITY:

Healthy Eating and Living - Food and Activity Chart Exercise

(adapted from *Food! To Your Good Health - Teacher's Guide Grade 1 - 8*, Ontario Agri-Food Education Inc., pp 10 -11)

Materials Needed:

- Copies of Canada's Food Guide (included in this section)
- Copies of the Food and Physical Activity Charts

Instructions:

1. Have members review Canada's Food Guide. Hold a discussion on how healthy food choices affect their health, how they grow, how they feel, and the development of their bones and teeth. Make sure they give reasons for why it is important to eat nutritious food, and what will happen if they do not eat well.
2. Ask members if they know what else they should do, in addition to making healthy food choices, in order to have a healthy body (physical activity). Discuss why physical activity is important.
3. Using the charts provided, have the members keep a record of what they eat, and what physical activity they do for 3 days. Discuss the results at the next meeting.



FOOD CHART

Based on the information in Canada's Food Guide, complete a chart like the following example each day.

List foods eaten DAY 1	Milk Products	Meat & Alternatives	Grain Products	Vegetables & Fruits	Extras
Breakfast					
Lunch					
Dinner					
Snacks					
TOTAL amount of food you ate for each food group today					
Did you eat the correct amount of food that you need for each food group today?					
If the answer was no to any of the above food groups, how much more do you need to eat?					

PHYSICAL ACTIVITY CHART

DAYS	LENGTH OF TIME	LIST OF PHYSICAL ACTIVITIES EACH DAY
Day 1		
Day 2		
Day 3		

(adapted from *Food! To Your Good Health - Teacher's Guide Grade 1 - 8*, Ontario Agri-Food Education Inc., p12 - used with permission)





ACTIVITY - In Depth - Senior Member's Activity

Canada's Food Guides - A Comparison

(adapted from *Food! To Your Good Health - Teacher's Guide Grade 9 - 12*, Ontario Agri-Food Education Inc., p11)

Materials required:

- Computer with Internet access
- Copies of the 'Comparing the Old and the New' worksheet (on following page)
- Copies of the current Canada's Food Guide (included at the end of this section)

Instructions:

1. Have members log on to www.dietitians.ca/public/content/eat_well_live_well/english/HealthyWayChallenge/nutrition_challenge/gameboard.asp and take the nutrition challenge quiz. You can do this quiz as a group, or have them do it individually. Discuss your results and what you need to learn about nutrition. Note: if the link does not work, try accessing it from the main menu - go to Eat Well, Live Well, click on the 'Try our Nutrition Challenges' button, and select the Nutrition Challenge Quiz.
2. Review the current version of *Canada's Food Guide to Healthy Eating*. Then, as a group or as a take-home activity, have members visit http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/context/hist/fg_history-histoire_ga_e.html, and use the following worksheet to compare the old and new guides. Note: if the link does not work, go to http://www.hc-sc.gc.ca/fn-an/index_e.html, follow the link to Canada's Food Guide, select 'Background of the Food Guide', then 'History of the Food Guide'.
3. As a follow up activity, have members write a news story which could appear in their local paper, which outlines the changes in the food guide and the benefits to Canadians in terms of ways to achieve healthy body weight and image.



Comparing the Old and the New

Canada's Food guide to Healthy Eating changed in the fall of 2006. Health Canada spent a considerable amount of time doing research to determine the changes that needed to be made to make the Food Guide more effective for Canadians

Your task is to compare the old guide to the new version and see what changes have been made. Complete the table below for your comparison.

(adapted from *Food! To Your Good Health - Teacher's Guide Grade 9 - 12*, Ontario Agri-Food Education Inc., p17 - used with permission)

Food Group	Old Guide -# of servings - serving size -consideration of age and gender	New Guide - number of servings - serving size - consideration of age and gender	Reason for change





Benefits of Healthy Eating

A healthy diet can:

- Maintain / control your body weight
- Give you energy to enjoy physical activity and sports
- Support your body for growth and development
- Give you all the essential nutrients your body and brain need to work well and learn well
- Protect you against certain diseases later in life such as heart disease, diabetes, high blood pressure, strokes, osteoporosis, and some cancers.

<i>Food Guide Nutrients</i>	<i>Grains</i>	<i>Vegetables & Fruits</i>	<i>Milk Products</i>	<i>Meat & Alternatives</i>
Protein	✓		✓	✓
Fat			✓	✓
Carbohydrate	✓	✓		
Fibre	✓	✓		
Thiamin	✓	✓		✓
Riboflavin	✓		✓	✓
Niacin	✓			✓
Folacin	✓	✓		✓
Vitamin B12			✓	✓
Vitamin C		✓		
Vitamin A		✓		
Vitamin D			✓	
Calcium			✓	
Iron	✓	✓		✓
Zinc	✓	✓		✓
Magnesium	✓	✓	✓	✓

From Eating Well with Canada's Food Guide - A Resource for Educators and Communicators, Health Canada, 2006.

Canada's Food Guide

Canada's Food Guide is a guide to help you make wise food choices. The rainbow puts foods into 4 food groups: Grain Products, Vegetables and Fruits, Milk and Alternatives, Meats and Alternatives. Each colour includes different foods that fit into this group. The guide gives you serving sizes that allow for different ages, whether you are male or female, and different activity levels. The guide is for people over the age of 2.

You can download your own copy of Canada's Food Guide from the Health Canada website.



The major recommendations of the food guide are to:

- enjoy a **variety** of foods.
- emphasize cereals, breads, other **grain products**, **vegetables** and **fruits**.
- choose **lower fat** dairy products, leaner meats and food prepared with little or not fat.
- achieve and maintain a **healthy body weight** by enjoying regular physical activity and healthy eating.
- **limit** salt, alcohol and caffeine.
- eat at least one dark green and one orange vegetable each day.
- choose vegetables and fruit prepared with little or no added fat, sugar or salt.
- have vegetables and fruit more often than juice.
- make at least half of your grain products whole grain each day, and that are lower in fat, sugar or salt.
- include meat alternatives such as beans, lentils and tofu often, and eat at least two servings of fish each week.



ARE YOUR FOOD & ACTIVITY CHOICES ON TRACK?

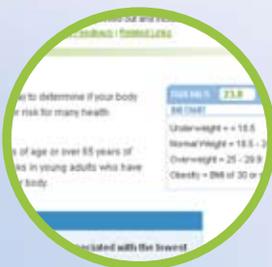
ARE YOU AT A HEALTHY WEIGHT? FIND OUT AT WWW.DIETITIANS.CA/EATRACKER

The **Eating + Activity Tracker** is a great tool from **Dietitians of Canada** which you can use to track your daily food and activity choices, get feedback on how you are doing, and find suggestions for ways to improve your choices.



1 SELECT YOUR DAILY FOODS AND ACTIVITIES

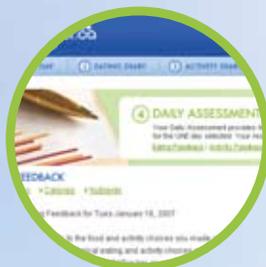
ETracker calculates your nutrient intakes and totals the time you spent in various activities. It then compares your results to current healthy eating and activity recommendations. The Eating Diary and Activity Diary let you choose from over 1000 food and nutrition supplements and over 100 popular activities.



2 RECEIVE PERSONALIZED FEEDBACK

ETracker provides feedback about your intake of energy (calories), fibre and 14 key nutrients. ETracker also shows you how your food choices stack up against Canada's Food Guide. You'll also receive feedback about whether your day includes the right amount and type of activity to promote health and a healthy weight.

ETracker can be used to help manage your weight. It calculates your body mass index (BMI) and tells you if your weight is in a healthy range or if you need to make some changes. Helpful tips for achieving and maintaining a healthy weight are included.



3 FIND RESOURCES AND SUGGESTIONS TO HELP YOU

ETracker will give you ideas on how you can improve your eating and activity choices. Use the web links to find trusted advice on a variety of nutrition topics.



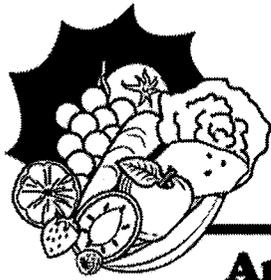
4 WATCH YOUR PROGRESS

ETracker stores your personal information so you can check in often to see your progress.

GETTING YOUR FOOD AND ACTIVITY CHOICES ON TRACK IS A FIRST STEP ON THE ROAD TO HEALTHY LIVING AND ACHIEVING A HEALTHY WEIGHT.

VISIT WWW.DIETITIANS.CA/EATRACKER TO GET YOURSELF ON TRACK!





FACT SHEET

Are you getting enough vegetables & fruit per day

The Challenge

It's time to take the 5-to-10-a-day-challenge. Simply use this chart to keep track of how many servings of vegetables and fruits you eat at each meal or snack. Get the kids involved - their participation and enthusiasm may surprise you. Award special prizes to those who eat at least 5 servings each day.

Just a reminder: One serving is equal to 1 medium size vegetable or fruit; 125 mL (1/2 cup) raw, cooked, frozen or canned vegetables or fruit; 125 mL (1/2 cup) juice; 250mL (1 cup) salad; 50 mL (1/4 cup) dried fruit.

Breakfast Ideas

- * glass of juice
- * half a grapefruit
- * half a melon
- * fruit on cereal
- * fruit shake

Dinner Ideas

- * veggie side dish
- * stir-fry
- * veggie pizza
- * pasta with veggies
- * fruit for dessert

Lunch Ideas

- * salad
- * soup
- * fruit plate
- * carrot sticks
- * veggies in sandwich

Snacks Ideas

- * piece of fruit
- * dried fruit
- * canned fruit cup
- * juice pak
- * veggies and dip

	Breakfast	+	Snack	+	Lunch	+	Snack	+	Dinner	+	Snack	=	Daily Total
MONDAY	_____	+	_____	+	_____	+	_____	+	_____	+	_____	=	_____
TUESDAY	_____	+	_____	+	_____	+	_____	+	_____	+	_____	=	_____
WEDNESDAY	_____	+	_____	+	_____	+	_____	+	_____	+	_____	=	_____
THURSDAY	_____	+	_____	+	_____	+	_____	+	_____	+	_____	=	_____
FRIDAY	_____	+	_____	+	_____	+	_____	+	_____	+	_____	=	_____
SATURDAY	_____	+	_____	+	_____	+	_____	+	_____	+	_____	=	_____
SUNDAY	_____	+	_____	+	_____	+	_____	+	_____	+	_____	=	_____



Canadian Cancer Society
Société canadienne du cancer



HEART AND STROKE FOUNDATION
FONDATION DES MALADIES DU COEUR

COLOUR CHART TIPS:

- Be sure you make extra copies of the colour chart to use a new one each week.
- Post it where you will use it: on the fridge, at work or keep it with you.
- Make eating vegetables and fruits fun and try new items from different colour groups.
- Keep this booklet with you when you are shopping as a quick reference to the colour key.
- Eat a variety of colours and enjoy!

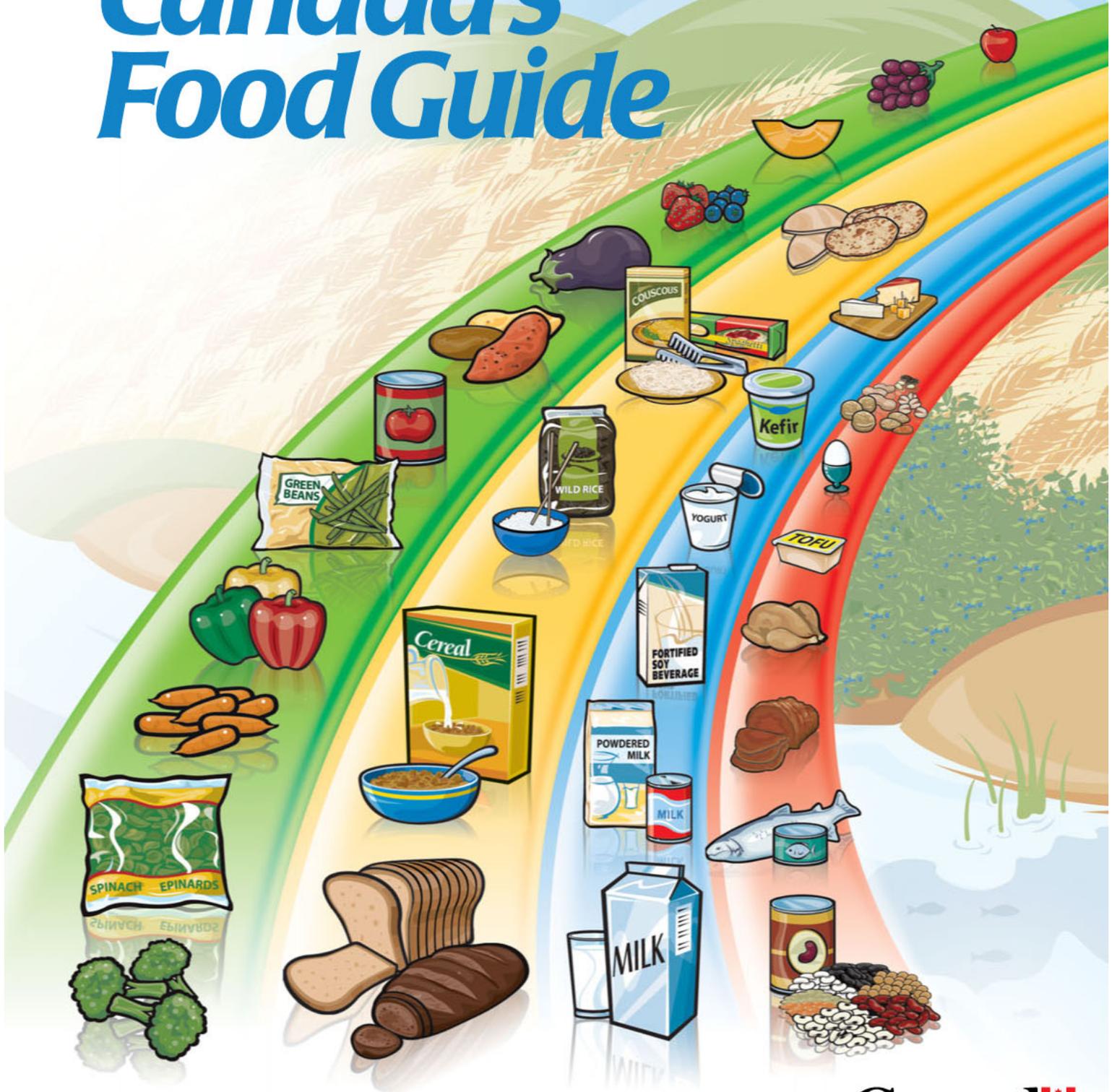
Your Colour Tracking Chart

Colour Choice	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
								
								
								
								
								





Eating Well with Canada's Food Guide



Recommended Number of Food Guide Servings per Day

Age in Years Sex	Children			Teens		Adults			
	2-3	4-8	9-13	14-18		19-50		51+	
	Girls and Boys			Females	Males	Females	Males	Females	Males
Vegetables and Fruit	4	5	6	7	8	7-8	8-10	7	7
Grain Products	3	4	6	6	7	6-7	8	6	7
Milk and Alternatives	2	2	3-4	3-4	3-4	2	2	3	3
Meat and Alternatives	1	1	1-2	2	3	2	3	2	3

The chart above shows how many Food Guide Servings you need from each of the four food groups every day.

Having the amount and type of food recommended and following the tips in *Canada's Food Guide* will help:

- Meet your needs for vitamins, minerals and other nutrients.
- Reduce your risk of obesity, type 2 diabetes, heart disease, certain types of cancer and osteoporosis.
- Contribute to your overall health and vitality.



What is One Food Guide Serving?

Look at the examples below.



Fresh, frozen or canned vegetables
125 mL (½ cup)



Leafy vegetables
Cooked: 125 mL (½ cup)
Raw: 250 mL (1 cup)



Fresh, frozen or canned fruits
1 fruit or 125 mL (½ cup)



100% Juice
125 mL (½ cup)



Bread
1 slice (35 g)



Bagel
½ bagel (45 g)



Flat breads
½ pita or ½ tortilla (35 g)



Cooked rice, bulgur or quinoa
125 mL (½ cup)



Cereal
Cold: 30 g
Hot: 175 mL (¾ cup)



Cooked pasta or couscous
125 mL (½ cup)



Milk or powdered milk (reconstituted)
250 mL (1 cup)



Canned milk (evaporated)
125 mL (½ cup)



Fortified soy beverage
250 mL (1 cup)



Yogurt
175 g (¾ cup)



Kefir
175 g (¾ cup)



Cheese
50 g (1 ½ oz.)



Cooked fish, shellfish, poultry, lean meat
75 g (2 ½ oz.)/125 mL (½ cup)



Cooked legumes
175 mL (¾ cup)



Tofu
150 g or 175 mL (¾ cup)



Eggs
2 eggs



Peanut or nut butters
30 mL (2 Tbsp)



Shelled nuts and seeds
60 mL (¼ cup)



Oils and Fats

- Include a small amount – 30 to 45 mL (2 to 3 Tbsp) – of unsaturated fat each day. This includes oil used for cooking, salad dressings, margarine and mayonnaise.
- Use vegetable oils such as canola, olive and soybean.
- Choose soft margarines that are low in saturated and trans fats.
- Limit butter, hard margarine, lard and shortening.



Make each Food Guide Serving count... *wherever you are – at home, at school, at work or when eating out!*

- ▶ **Eat at least one dark green and one orange vegetable each day.**
 - Go for dark green vegetables such as broccoli, romaine lettuce and spinach.
 - Go for orange vegetables such as carrots, sweet potatoes and winter squash.
- ▶ **Choose vegetables and fruit prepared with little or no added fat, sugar or salt.**
 - Enjoy vegetables steamed, baked or stir-fried instead of deep-fried.
- ▶ **Have vegetables and fruit more often than juice.**

- ▶ **Make at least half of your grain products whole grain each day.**
 - Eat a variety of whole grains such as barley, brown rice, oats, quinoa and wild rice.
 - Enjoy whole grain breads, oatmeal or whole wheat pasta.
- ▶ **Choose grain products that are lower in fat, sugar or salt.**
 - Compare the Nutrition Facts table on labels to make wise choices.
 - Enjoy the true taste of grain products. When adding sauces or spreads, use small amounts.

- ▶ **Drink skim, 1%, or 2% milk each day.**
 - Have 500 mL (2 cups) of milk every day for adequate vitamin D.
 - Drink fortified soy beverages if you do not drink milk.
- ▶ **Select lower fat milk alternatives.**
 - Compare the Nutrition Facts table on yogurts or cheeses to make wise choices.

- ▶ **Have meat alternatives such as beans, lentils and tofu often.**
- ▶ **Eat at least two Food Guide Servings of fish each week.***
 - Choose fish such as char, herring, mackerel, salmon, sardines and trout.
- ▶ **Select lean meat and alternatives prepared with little or no added fat or salt.**
 - Trim the visible fat from meats. Remove the skin on poultry.
 - Use cooking methods such as roasting, baking or poaching that require little or no added fat.
 - If you eat luncheon meats, sausages or prepackaged meats, choose those lower in salt (sodium) and fat.



* Health Canada provides advice for limiting exposure to mercury from certain types of fish. Refer to www.healthcanada.gc.ca for the latest information.



Advice for different ages and stages...

Children

Following *Canada's Food Guide* helps children grow and thrive.

Young children have small appetites and need calories for growth and development.

- Serve small nutritious meals and snacks each day.
- Do not restrict nutritious foods because of their fat content. Offer a variety of foods from the four food groups.
- Most of all... be a good role model.



Women of childbearing age

All women who could become pregnant and those who are pregnant or breastfeeding need a multivitamin containing **folic acid** every day. Pregnant women need to ensure that their multivitamin also contains **iron**. A health care professional can help you find the multivitamin that's right for you.

Pregnant and breastfeeding women need more calories. Include an extra 2 to 3 Food Guide Servings each day.

Here are two examples:

- Have fruit and yogurt for a snack, or
- Have an extra slice of toast at breakfast and an extra glass of milk at supper.



Men and women over 50

The need for **vitamin D** increases after the age of 50.

In addition to following *Canada's Food Guide*, everyone over the age of 50 should take a daily vitamin D supplement of 10 µg (400 IU).



How do I count Food Guide Servings in a meal?



Here is an example:

Vegetable and beef stir-fry with rice, a glass of milk and an apple for dessert

250 mL (1 cup) mixed broccoli, carrot and sweet red pepper = 2 **Vegetables and Fruit** Food Guide Servings

75 g (2 ½ oz.) lean beef = 1 **Meat and Alternatives** Food Guide Serving

250 mL (1 cup) brown rice = 2 **Grain Products** Food Guide Servings

5 mL (1 tsp) canola oil = part of your **Oils and Fats** intake for the day

250 mL (1 cup) 1% milk = 1 **Milk and Alternatives** Food Guide Serving

1 apple = 1 **Vegetables and Fruit** Food Guide Serving



Eat well and be active today and every day!

The benefits of eating well and being active include:

- Better overall health.
- Lower risk of disease.
- A healthy body weight.
- Feeling and looking better.
- More energy.
- Stronger muscles and bones.

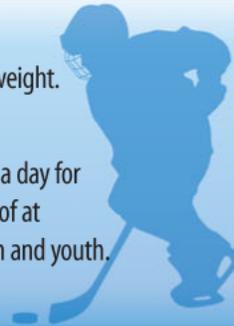


Be active

To be active every day is a step towards better health and a healthy body weight.

Canada's Physical Activity Guide recommends building 30 to 60 minutes of moderate physical activity into daily life for adults and at least 90 minutes a day for children and youth. You don't have to do it all at once. Add it up in periods of at least 10 minutes at a time for adults and five minutes at a time for children and youth.

Start slowly and build up.



Eat well

Another important step towards better health and a healthy body weight is to follow Canada's Food Guide by:

- Eating the recommended amount and type of food each day.
- Limiting foods and beverages high in calories, fat, sugar or salt (sodium) such as cakes and pastries, chocolate and candies, cookies and granola bars, doughnuts and muffins, ice cream and frozen desserts, french fries, potato chips, nachos and other salty snacks, alcohol, fruit flavoured drinks, soft drinks, sports and energy drinks, and sweetened hot or cold drinks.

Read the label

- Compare the Nutrition Facts table on food labels to choose products that contain less fat, saturated fat, trans fat, sugar and sodium.
- Keep in mind that the calories and nutrients listed are for the amount of food found at the top of the Nutrition Facts table.

Nutrition Facts	
Per 0 mL (0 g)	
Amount	% Daily Value
Calories 0	
Fat 0 g	0 %
Saturates 0 g	0 %
+ Trans 0 g	
Cholesterol 0 mg	
Sodium 0 mg	0 %
Carbohydrate 0 g	0 %
Fibre 0 g	0 %
Sugars 0 g	
Protein 0 g	
Vitamin A 0 %	Vitamin C 0 %
Calcium 0 %	Iron 0 %

Limit trans fat

When a Nutrition Facts table is not available, ask for nutrition information to choose foods lower in trans and saturated fats.

Take a step today...

- ✓ Have breakfast every day. It may help control your hunger later in the day.
- ✓ Walk wherever you can – get off the bus early, use the stairs.
- ✓ Benefit from eating vegetables and fruit at all meals and as snacks.
- ✓ Spend less time being inactive such as watching TV or playing computer games.
- ✓ Request nutrition information about menu items when eating out to help you make healthier choices.
- ✓ Enjoy eating with family and friends!
- ✓ Take time to eat and savour every bite!



For more information, interactive tools, or additional copies visit Canada's Food Guide on-line at: www.healthcanada.gc.ca/foodguide

or contact:

Publications
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Également disponible en français sous le titre :
Bien manger avec le Guide alimentaire canadien

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Eating Well with Canada's Food Guide

First Nations, Inuit and Métis





How to use Canada's Food Guide

The Food Guide shows how many servings to choose from each food group every day and how much food makes a serving.

1. Find your age and sex group in the chart below.
2. Follow down the column to the number of servings you need for each of the four food groups every day.
3. Look at the examples of the amount of food that counts as one serving. For instance, 125 mL (1/2 cup) of carrots is one serving in the Vegetables and Fruit food group.

What is one Food Guide Serving?

Look at the examples below.

Vegetables and Fruit Fresh, Frozen and Canned.	Recommended Number of Food Guide Servings per day			
	Children 2-3 years old	Children 4-13 years old	Teens and Adults (Females)	Teens and Adults (Males)
	4	5-6	7-8	7-10
	3	4-6	6-7	7-8
	2	2-4	2	3
	1	1-2	2	3

Vegetables and Fruit	
Grain Products	<p>Make at least half of your grain products that are lower in fat, sugar or salt.</p>
Milk and Alternatives	<p>Drink 500 mL (2 cups) of skim, 1% or 2% milk each day. Select lower fat milk alternatives. Drink fortified soy beverages if you do not drink milk.</p>
Meat and Alternatives	<p>Have meat alternatives such as beans, lentils and tofu often. Eat at least two Food Guide Servings of fish each week.* Select lean meat and alternatives prepared with little or no added fat or salt.</p>



When cooking or adding fat to food:

- Most of the time, use vegetable oils with unsaturated fats. These include canola, olive and soybean oils.
- Aim for a small amount (2 to 3 tablespoons or about 30-45 mL) each day. This amount includes oil used for cooking, salad dressings, margarine and mayonnaise.

Traditional fats that are liquid at room temperature, such as seal and whale oil, or oiligan grease, also contain unsaturated fats. They can be used as all or part of the 2-3 tablespoons of unsaturated fats recommended per day.

- Traditional fats that are liquid at room temperature, such as seal and whale oil, or oiligan grease, also contain unsaturated fats. They can be used as all or part of the 2-3 tablespoons of unsaturated fats recommended per day.
- Choose soft margarines that are low in saturated and trans fats.
- Limit butter, hard margarine, lard, shortening and bacon fat.

*Health Canada provides advice for limiting exposure to mercury from certain types of fish. Refer to www.healthcanada.gc.ca for the latest information. Consult local, provincial or territorial governments for information about eating locally caught fish.

Respect your body... Your choices matter

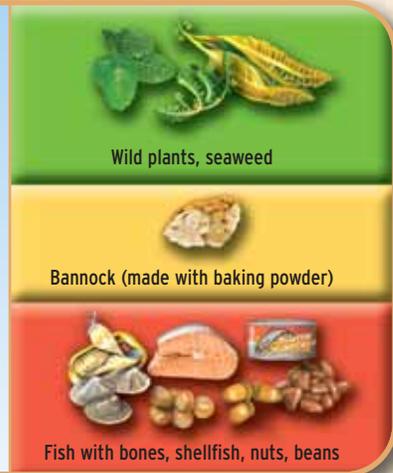
Following Canada's Food Guide and limiting foods and drinks which contain a lot of calories, fat, sugar or salt are important ways to respect your body. Examples of foods and drinks to limit are:

- pop
- fruit flavoured drinks
- sweet drinks made from crystals
- sports and energy drinks
- candy and chocolate
- cakes, pastries, doughnuts and muffins
- granola bars and cookies
- ice cream and frozen desserts
- potato chips
- nachos and other salty snacks
- french fries
- alcohol

People who do not eat or drink milk products must plan carefully to make sure they get enough nutrients.

The traditional foods pictured here are examples of how people got, and continue to get, nutrients found in milk products. Since traditional foods are not eaten as much as in the past, people may not get these nutrients in the amounts needed for health.

People who do not eat or drink milk products need more individual advice from a health care provider.



Women of childbearing age

All women who could become pregnant, and pregnant and breastfeeding women, need a multivitamin with folic acid every day. Pregnant women should make sure that their multivitamin also contains iron. A health care provider can help you find the multivitamin that is right for you.

When pregnant and breastfeeding, women need to eat a little more. They should include an extra 2 to 3 Food Guide Servings from any of the food groups each day.

For example:

- have dry meat or fish and a small piece of bannock for a snack, or
- have an extra slice of toast at breakfast and an extra piece of cheese at lunch.

Women and men over the age of 50

The need for vitamin D increases after the age of 50.

In addition to following Canada's Food Guide, men and women over the age of 50 should take a daily vitamin D supplement of 10 µg (400 IU).

For strong body, mind and spirit, be active every day.



This guide is based on *Eating Well with Canada's Food Guide*.

For more information, interactive tools or additional copies visit Canada's Food Guide at: www.healthcanada.gc.ca/foodguide

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Grain Products

Roll Call: how many grains can you name?

Answer to Roll Call:

ACTIVITIES

- Using a flipchart and markers, have members brainstorm forming a list of 2 columns: whole grain versus refined grain and list common foods under the appropriate list.

Whole Grain	Refined Grain
whole wheat bread	regular pasta
brown rice	soda crackers
whole wheat pasta	white bread
plain oatmeal	white rice
whole grain buns	refined grain cereals (fruit loops)
whole grain breakfast cereals (bran flakes)	white buns

- Bring in examples of different grain seeds and have members identify them (try a bulk food or natural food store) - if you cannot find actual samples, visit <http://commons.wikimedia.org/wiki/Category:Cereals> for some images that can be used.
- Have a grains challenge: the member who can write down the most refined grain products in a certain time period is the champion! Examples of answers: white bread, white rice, crumpets, waffles, spaghetti, macaroni, noodles, taco shells, tortillas, pita bread, etc.
- Have the members list refined grain empty calorie foods: donuts, cakes, cookies, cupcakes, snack cakes, snack crackers, pretzels, chips, etc. These are processed carbohydrates and they also contain excess sugar, fat and / or salt. These do not have to be totally eliminated from the diet, just ensure they are eaten in moderation and not at the expense of eating whole grains. Suggest alternatives - alternate grains that are being introduced are: Kamut, Quinoa, Spelt and Bulgur
- Make a recipe using one of the above grains. Spelt is being used in a convenience cereal; perhaps have the members try this.

ACTIVITIES: In Depth

- Have members research the history of Spelt, Quinoa, Bulgur & / or Kamut. Have members present to the group with a prepared recipe.

Resources:

- www.dietitians.ca/eatwell



Grain products are a major source of **carbohydrates** (CHO), which provide energy to your body for growth, and exercise, as well as storage energy (glycogen).

Grain products, fruits, vegetables and legumes can supply carbohydrates.

Whole grains contain all the nutrients from the plant, whereas processed grains have much of the outer kernel of the grain removed (this contains valuable B vitamins, fibre, protein and minerals). This yields white flour that is used in baking.

Some manufacturers "enrich" the flour by adding back some vitamins, maybe even iron. However, fibre cannot be added back.



Fibre is of 2 kinds:

Insoluble: comes from whole grains and vegetables and it promotes regularity. The body does not absorb insoluble fibre. (E.g. celery)

Soluble: comes from whole grains and vegetables, and is digested and absorbed by your body. This helps control levels of fat and cholesterol in your body.





Step Right Up

to Healthy Eating

It's Always a Great Time for Grains!

Grain Products are enjoyed every day by people around the world. Rice, pasta, tortillas, roti, bannock, couscous, and every size and shape of bread are just a few examples of foods made with the goodness of grains.



Grain Products are 1 of 4 important food groups in *Eating Well with Canada's Food Guide*.

They are our main source of carbohydrate which supplies our body with easy to use fuel. Grain products also provide key vitamins and minerals such as thiamin, riboflavin, niacin, iron, zinc and magnesium. Grain Products are an important source of fibre, which may help reduce our risk for heart disease, diabetes and obesity, and of course, prevent constipation.

Get the most nutritional value – go for the whole grain.

Make at least half of your grain products choices whole grain each day. Whole grains include all parts of the grain kernel – the bran, germ and endosperm. The more a whole grain is refined during processing, the more nutrients are lost. Enriched products like pasta, white flour and some breakfast cereals have vitamins and minerals added back, however the original fibre and some micronutrients and minerals of the whole grain are still

missing. Choose foods with “whole” in front of the grain in the ingredient list. For example, whole wheat or whole rye flour instead of wheat or rye flour.

How many servings a day?

The number of servings you eat depends on your age and gender. A Food Guide Serving equals one slice of bread (35 g), 1/2 a bun or bagel, or 125 mL (1/2 cup) of cooked rice, pasta, or 150 g (3/4 cup) hot cereal. Check the labels of cold cereals for the portion size. A Food Guide Serving of cold cereal is 30 grams.

Age	# of Food Guide Servings of Grain Products
Toddlers 2-3 years	3
Children 4-8 years	4
Youth 9-13 years	6
Teens (females) 14-18 years	6
Teens (males) 14-18 years	7
Adults (females) 19-50 years	6-7
Adults (males) 19-50 years	8
Adults (females) 51 years and older	6
Adults (males) 51 years and older	7



Tips for choosing and enjoying Grain Products

Mix it up. Enjoy a variety of flavours and textures by mixing together two to three different breakfast cereals. Boost the fibre value of refined cereals by adding a handful of a high fibre cereal (one with at least 4 grams of fibre per serving).

Grains make great snacks!

Enjoy the crunch of low fat, whole grain crackers, Melba toast, dry cereal or plain popcorn as a healthier alternative to potato chips.

Flip fibre into your flapjacks

When making pancakes, muffins or cookies from “scratch” or a mix, add flaxseeds, rolled oats, wheat germ, oat or wheat bran, chopped nuts, dried fruit, or frozen blueberries for more fibre. Try substituting whole wheat or barley flour for all-purpose flour when baking.

Tired of sandwiches?

For a change, take your favourite fillings and wrap them in a tortilla, stuff them in a pita, pile them on a crusty roll or spread them on a bagel. Try the whole grain varieties for added fibre.

Lower is better. The Glycemic Index is a scale that rates foods by how much they raise the sugar level in your blood. The lower the Glycemic Index (GI) of a food the better it may be for controlling your appetite, cholesterol and blood sugar levels. Choose whole grain products that have low GI values. Examples include: pumpernickel bread, large flake oatmeal, and barley.

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Hold the fat, sugar and salt!

Read the food label to compare grain products and choose the ones that are lower in fat, trans fat, sugar and salt. Use only small amounts of spreads and sauces.

Have you tried ...?

There is practically a whole grain for each letter of the alphabet. Amaranth, Bulgur, Couscous, Quinoa, Rice, Spelt, Triticale – just to name a few. Whole grains add a delightful nutty flavour and wonderful chewy texture to cereals, salads, pilafs and baked goods. Tantalize your taste buds and try a new grain this month.

A Toast to Oats! Dietary fibre that is called “soluble” has been shown to help lower blood cholesterol and help control blood sugar levels. Oatmeal, oat bran, barley, kidney beans, baked beans and flaxseeds are rich in soluble fibre.

Grandma called it ‘roughage’!

Insoluble fibre found in wheat bran, corn bran, flax seeds, fruits and vegetables (especially the skins), is needed to help keep you regular and prevent constipation. Be sure to drink plenty of water when eating foods with large amounts of insoluble fibre.

Low marks for “low-carb” diets Weight loss diets that promote a very low carbohydrate intake get a poor grade from nutrition experts. Our bodies need at least 130 grams of carbohydrate each day to get the glucose or sugar that fuels our brains. Low-carb diets also tend to be low in fibre, vitamins and minerals and are, therefore, unhealthy if followed for any length of time.

This Factsheet distributed compliments of:



Vegetables and Fruit

Roll Call: What is your favourite vegetable?

Answer to Roll Call:

ACTIVITIES :

1. Have the members participate in the 5 to 10 Challenge.
2. Have members select a vegetable or fruit and come up with a list of different ways this food can be cooked and eaten.
3. Invite a Community Food Advisor (can be found by contacting your local school board or public health unit) come and demonstrate exciting ways to use vegetables.
4. Have the club prepare an ad or commercial about the benefits of consuming fruits and vegetables. Perhaps it can be aired on a local radio station. Otherwise, have them present it as a skit.
5. Prepare recipes using fruits and / or vegetables in a unique way. Pair veggies with low-calorie dressing, or fruit with yogurt for dipping. Fruit kabobs are always fun!
6. Game: give each member a fruit or vegetable name and when you call "upset the fruit basket or vegetable cart" everyone changes places with 1 seat removed - this is similar to musical chairs.
7. Role Play: members (working in pairs) select a fruit or vegetable and make up a skit convincing other members why they should eat this food. These could later be presented for a school group or community group.
8. Trial- each member is to bring in a fruit or vegetable that they have never tried. Bring it in raw form and in prepared form ready to consume. Member has to convince the group why this is good to eat and good for them. For a more in-depth activity, follow the presentation and taste test with a judging activity to judge the best dish!

Resources:

- <http://www.fruitsandveggiesmorematters.org/>

This is a wonderful site with lots of interactive activities (including a supermarket scavenger hunt), kids section with recipes, colouring sheets, puzzles and a tracker / shopping planner. It was developed by the Produce for Better Health Foundation.

- www.dole5aday.com

This site has lots of information; select a Meter, Phyto Power, What's Hot, fitness and 5 A Day. Music, games and interactive games are found here including: Vending Machine Mania, Create a Recipe, etc. There are also recipes for breakfast shakes and other fruit based meals.



Fruits and vegetables are a major source of Vitamins: C, A, E, B2, B6, panthotenic acid, folic acid, biotin, calcium, potassium, sodium, and copper.

Vegetables and fruits are also a source of carbohydrates, fibre and some protein. They also contain phytonutrients and antioxidants that may help protect people against cancer and heart disease.

Ways to Eat and Preserve Fruits and Vegetables

- **Raw** (well washed is ideal) because all the nutrients are preserved.
- Cooking in a **small amount of water** for a short period of time retains the most nutrients (steaming).
- Cooking in a large amount of water for a long time **loses** most of the water-soluble vitamins (boiling).
- Eating apples, potatoes and tomatoes with their **skins** also retains the most nutrients.
- **Microwaving** for a short time preserves nutrients.
- **Freezing** maintains the most nutrients, with **canning** being the next best (canning usually adds extra sodium).



Other key tips:

- Do not refrigerate bananas (they will brown - which is ok if you are using them for baking!) or tomatoes (they lose flavour).
- Over ripe bananas can be frozen and used in baking.
- Produce in season is the cheapest.
- Most fruits and vegetables are fat free (olives and avocado have fat).
- Try fruit and vegetables in different ways, not always the same old way - be creative!





Step Right Up to Healthy Eating

Colour your choices with Vegetables and Fruit

Bright red and yellow peppers, juicy oranges, sweet pineapples, plump berries and grapes, crisp carrots, ripe tomatoes and luscious leafy greens – doesn't your mouth water just thinking about these delicious foods?

Vegetables and Fruit are 1 of 4 important food groups in *Eating Well with Canada's Food Guide*. Together with Grain Products, Milk and Alternatives, and Meat and Alternatives, they form a tried and true blueprint for healthy eating.

Vegetables and Fruit taste awesome!

Your taste buds will come alive when you savour the sweetness of snow peas, the crunch of cucumber and the kick of kiwi!

Vegetables and Fruit help you stay healthy. They are loaded with vitamins, fibre and antioxidants, all known to help fight disease and allow your body to perform at its best.

- With the exception of olives and avocados, Vegetables and Fruit are low in fat and calories. They make a great snack any time of the day.
- Broccoli, red peppers, tomatoes, strawberries, oranges, grapefruit and kiwi are best picks for Vitamin C, which is needed to prevent infections and heal cuts and bruises.



- Fruits, such as apples, strawberries and citrus fruits contain soluble fibre, which helps to reduce 'bad' cholesterol. Most fruits and vegetables, except for juices, also provide insoluble fibre, which helps to keep digestive systems healthy and regular. Eating the skins of vegetables and fruit is great for added fibre.
- Dark green leafy vegetables, asparagus, broccoli, Brussels sprouts, green peas, corn, oranges and orange juice, and canned pineapple juice are great sources of folate. This B vitamin is needed for healthy blood and known to protect against neural tube defects during pregnancy.
- Lower your risk for heart disease, stroke and certain types of cancer by choosing antioxidant rich vegetables and fruit. Examples include dark green, red and orange choices like red peppers, tomatoes, broccoli, spinach, kale, carrots, sweet potatoes, mangos and cantaloupe.





Tips for choosing and enjoying Vegetables and Fruits

Enjoy vegetables and fruit at each meal or snack to get the amount you need each day.

Canada's Food Guide recommends a certain number of Food Guide Servings each day from the Vegetables and Fruit group depending on your age and gender.

Age	# of Food Guide Servings of Vegetables and Fruit
Toddlers 2-3 years	4
Children 4-8 years	5
Youth 9-13 years	6
Teens (females) 14-18 years	7
Teens (males) 14-18 years	8
Adults (females) 19-50 years	7-8
Adults (males) 19-50 years	8-10
Adults (females) 51 years and older	7
Adults (males) 51 years and older	7

Vegetables and Fruit are totally versatile!

Enjoy them fresh, frozen, canned or dried. Try them in soups, stir-fries, stews, casseroles or as a dessert.

Have dark green and orange vegetables or fruit each day.

Having vegetables and fruit at every meal and snack helps you get the number of servings you need. One Food Guide Serving is equal to 1 medium piece of fresh fruit OR 125 mL (1/2 cup) of cut up fresh, frozen or canned fruit or vegetable OR 250 mL (1 cup) of green salad OR 125 mL (1/2 cup) of 100% fruit juice OR 60 mL (1/4 cup) dried fruit.

Short on time? Use pre-washed bagged salads or cut-up vegetables and fruit to save time.

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Choose vegetables and fruit more often than juice.

You'll get more fibre and other important nutrients. When choosing juice, look for products that are 100% juice.

In a hurry? Grab the perfect fast food that doesn't need a container – bananas, apples, pears, oranges are all easy take along foods.

Need a yummy breakfast? Blend 1 cup (250 mL) yogurt with 1 medium banana, 1/2 cup (125 mL) orange juice and a few berries for a tasty shake.

Hold the fat, sugar and salt. Enjoy the true taste of vegetables and fruit. Enhance flavours with herbs and spices rather than salt. Avoid deep fried vegetables – have steamed or stir-fried vegetables instead. Choose unsweetened or fruit packed in juice.

Be adventurous – try one new fruit or vegetable every week – you'll be amazed at how good it all tastes. Visit markets with foods from different parts of the world. Experiment with Bok choy, gai lan, casava, okra, bitter melon, passion fruit, pomegranate, and star fruit.

Lock in nutrients. Steam or use just a small amount of cooking water to keep the most nutrients in your vegetables.

Show children how and where veggies are grown – try growing a few in your own back yard or take a road trip to a pick-your-own field or farmers market.

This Factsheet distributed compliments of:



VERNE'S LUNCH TABLE TALES



It's lunchtime!

Everyone opens their lunch bags, revealing _____ (adjective) treats to eat. _____ (girl name) pulls out a _____ (adjective) _____ (red fruit or vegetable) to eat. The **red** color group helps her remember her school lessons better. _____ (boy name) has many kinds of berries, _____ (list berries in the red and blue color group), and _____ (list a berry in the red and blue color group). He likes to mix his colored berries so he can remember his lessons too. _____ (girl name) has some carrots and some cantaloupe because the **yellow/orange** color group helps her see clearly. _____ (boy or girl name) and _____ (boy or girl name) share their lunch! They split a _____ (red fruit or vegetable) and _____ (green fruit or vegetable) so they can both have strong bones and a healthy heart!

Now it's time for you to open your lunch bag. You have the best lunch of them all: a _____ (green fruit or vegetable), some delicious _____ (white fruit or vegetable), half of a _____ (red fruit or vegetable), and 2 slices of _____ (blue/purple fruit or vegetable)!

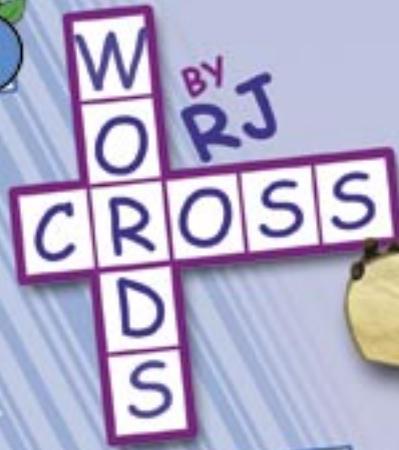
You have something from every fruit and vegetable color group!

SECRET MIRROR MESSAGE

Hold the message below up to a mirror.
Can you read what it says?

Frutis and vedgies help ziggey bna stiuwF
and your vision, noiziv ruoy bna
are the right decision.





ACROSS

1. A fruit that is blue and grows on a bush.
2. A vegetable that grows up out of the ground.
6. A vegetable that begins with the word "egg."
7. A fruit that is a dried grape.
8. A vegetable that grows in a patch.

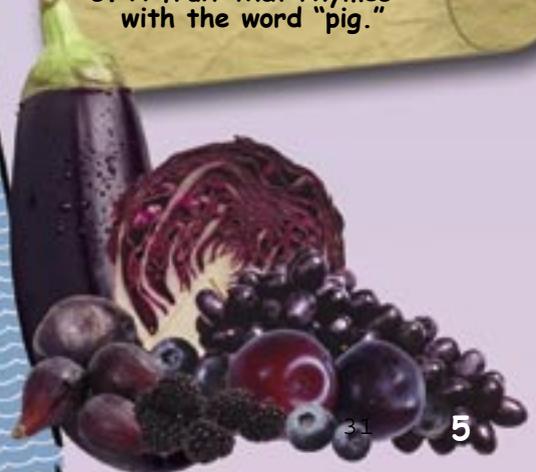
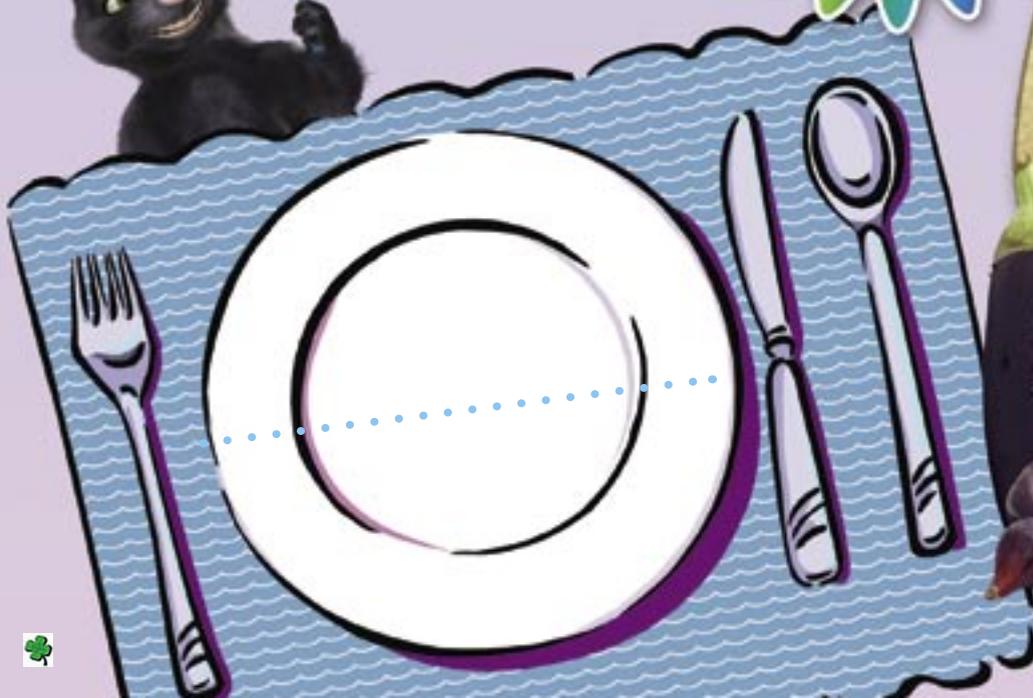
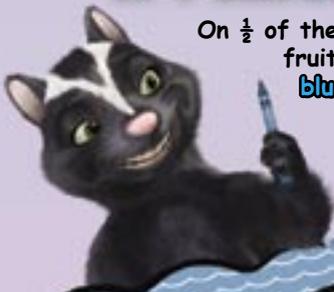
DOWN

1. A fruit that is a berry and is black.
3. A fruit that grows on a tree.
4. A fruit that grows on a vine.
5. A fruit that rhymes with the word "pig."



A PLATEFUL OF FUN!

On $\frac{1}{2}$ of the plate, draw your favorite fruits and vegetables from the **blue/purple** color group. Once you're done, color them in!





Dairy Products and Alternatives

Roll Call: What dairy products or alternates have you consumed so far today?

Answer to Roll Call:

ACTIVITIES:

1. Have the members write what they ate and drank yesterday and try to calculate the amount of calcium they consumed. Have members determine if they consumed enough calcium, or if they need more. Try to have them state how they could consume more.
2. Have a Dairy Educator present to the group on how to use milk, the nutrition of milk, or perhaps about the safety standards around milk.
3. Have members do a survey of their class or family to determine how many people consume milk on a daily basis.
4. Show the effect of calcium on bones. Place a chicken bone in a jar. Add enough vinegar to cover the bone completely. Leave the bone in the vinegar for 2-3 days. Remove the bone from the vinegar and wash it off. Observe the bone. This experiment shows what happens when calcium is removed from the bone.
5. Make a smoothie. Blend 250ml (1 c) berries (fresh, partially thawed or drained canned fruit) until smooth then add 250 ml (1 cup) milk, 250 ml (1 cup) plain yogurt, 2ml (1/2 tsp) vanilla, 25 ml (1 1/2 tbsp) honey. Pour into 4 serving glasses and sprinkle with a dash of ground nutmeg.
6. Have members make a Seasonal Fruit Frosty. Blend on low speed until smooth: 125 ml (1/2 cup) milk, 125 ml (1/2 cup) fruit (peach, berries, melons, etc.), and 2 scoops ice cream.

Recipes from the BC Dairy Foundation

Resources:

- Milk Makes it Better. 4-H 1710 91 ME
- www.bcdairyfoundation.ca
- www.milknutrition.org - Dairy Farmers of Canada (Ontario). This site is a wealth of information: puzzles, games (Food Finds, Mission 5522, Menu planner)
- CD ROM- *Stretch your Noodle* (you can order it through the Registered Dieticians for Ontario Teachers). This game is also available online through www.teachnutrition.org.
- *Canada's Food Guide* - fact sheets on Calcium (calculator), Fat, 4 Steps to Stronger Bones, Lactose Intolerance and more.



Dairy products are a major source of protein, calcium, riboflavin, and Vitamin A and D. Milk is also a source of energy.

Calcium is a very important nutrient that is in milk. It is important for:

- forming and maintaining **strong bones and teeth**
- helping **muscles** work properly
- keeping **nerves** healthy
- and for the process which stops bleeding (**blood clotting**)

In our youth calcium is laid down in the bones, which will help prevent **osteoporosis** (excessive calcium loss from the bones) later in life. Osteoporosis occurs more in women and causes the bones to become thin and brittle and susceptible to breaking.

Milk is the best source of **calcium**. 250 ml (1 cup) gives you 300 mg of calcium; the daily requirement is **1100 mg for girls** 10 -12 years of age and **900 mg for boys** 10 - 12 years of age (Health and Welfare Canada, 1990). The type of milk does not alter the amount of calcium. Other sources of calcium are:



Calcium Boosters:

- grate cheese over hot vegetables
- add 30-60 ml (approximately 1/3 cup) skim milk powder to puddings, soup,
- meatloaf, creamy casseroles and baked goods. It will not alter the taste but will increase the calcium content.
- try a smoothie or a milkshake
- add yogurt to your fruit

Yogurt:

125 ml (1/2 cup) = 300 mg calcium

Ice cream:

125 ml (1/2 cup) = 80 mg calcium

Cheddar cheese:

50 g (1 3/4 oz) = 386 mg calcium

Canned salmon (with bones crushed up)-

1/2 can = 225 mg calcium

Tofu:

125 ml (1/2 cup) = 260 mg calcium

Orange (1):

80 mg calcium

Calcium enriched orange juice:

250 ml (1 cup) = 365 mg calcium





Lactose Intolerance / Allergies

Some people have a lactose intolerance, (lactose is the sugar naturally found in some dairy products) which means that they can consume only a limited amount of milk or milk products without feeling ill. Sometimes they can tolerate yogurt or cheese but not fluid milk. There are products available to help these people, including Lacteze or Lactaid which help to digest the lactose.

Some people are allergic to milk so they must get calcium from other sources such as soymilk. They should take a calcium and Vitamin D supplement. Vitamin D helps the body use calcium.

In both conditions, **consult your physician.**

Try these milk substitutes for those that do not like milk:

- processed cheese
- cottage cheese
- ice cream
- yogurt
- milk pudding
- soups made with milk
- flavoured milk
- add cheese to casseroles and cooked vegetables

Calcium is required to make healthy bones. Exercise stresses the bones, which then become stronger and thicker. Exercise increases the blood flow to the bones giving better access to the nutrients (calcium).





Eat Well, Live Well

Brought to you by:



Step Right Up

to Healthy Eating

Marvelous Milk Products

“Drink your milk – it’ll make your bones strong.”

For decades, parents have spoken these words at the dinner table day after day after day, and it still holds true.



Milk and Alternatives are 1 of 4 important food groups in *Eating Well with Canada’s Food Guide*.

Together with Vegetables and Fruit, Grain Products, and Meat and Alternatives, they form a tried and true blueprint for healthy eating.

Tasty and versatile!

Ice cold milk, smooth and creamy yogurt and cheese from around the world can be enjoyed on their own or combined with other foods to make everything from appealing appetizers and dips, salads and dinner dishes to delicious desserts.

Provide a variety of nutrients.

Milk, yogurt and cheese provide protein, vitamins including vitamin A and D and minerals including calcium, phosphorous and magnesium. It’s important to have 500 mL (2 cups) of milk every day for adequate vitamin D for healthy bones. If you don’t drink milk choose a fortified soy beverage.

Milk isn’t just for kids!

Milk contains all the building blocks for healthy bones and teeth. Canada’s Food Guide recommends 2-4 servings of Milk and Alternatives per day, depending on your age.

Age	# of Food Guide Servings of Milk and Alternatives
Toddlers 2-3 years	2
Children 4-8 years	2
Youth 9-13 years	3-4
Teens 14-18 years	3-4
Adults 19-50 years	2
Adults 51 years and older	3

For children and teens, Milk and Alternatives are great sources of the important building blocks for strong bones and teeth. And even though adult and senior bones don’t appear to be growing, milk products provide essential nutrients that work to keep bones strong. Healthy eating along with regular weight-bearing exercise such as walking or dancing can help to prevent osteoporosis, a condition which leaves bones weak, thin and more likely to break.





Tips for choosing and enjoying Milk and Alternatives

Compare your choices to Food Guide Servings!

One serving of Milk and Alternatives equals one 250 mL (8-ounce) glass of milk or fortified soy beverage, 2 slices of processed cheese, 50 g (1 1/2 ounces) of cheese (the size of 3 one-inch cubes) or 175 gm (3/4 cup) yogurt.

Chocolate and other flavoured milks contain all the nutrients of white milk, but with more sugar.

Make lower fat choices more often.

You will find %MF or %BF on food labels for milk, cheese and yogurt. The percentage of milk fat (%MF) or butterfat (%BF) is the amount of fat by weight in the milk product. For example, 3.25% (homogenized milk) has more fat than 2% or 1% milk. Skim milk has the least amount of fat with less than 0.5% fat. Regardless of the MF or BF content, all fluid milk contains the same calcium, vitamins and minerals.

Shake up a wonderful breakfast by whirling 1 cup (250 mL) yogurt, 1/2 cup (125 mL) orange juice, and 1 medium banana in the blender. Top it with some fresh berries for added crunch and color.

Use fluid milk instead of water when preparing canned cream soups. Or try adding skim milk powder to meat loaf, sauces or casseroles.

Use evaporated 2% or whole milk instead of whipping or cereal cream in cream sauces.

You'll get the velvety smooth texture, more calcium and save on added fat.

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Cream cheese, ice cream and sour cream are calcium poor choices.

While made from milk, these foods contain less calcium than milk, yogurt or cheese.

If you don't drink milk enjoy fortified soy beverages. They are available in different flavours and can be used as a beverage, on cereals and for cooking and baking. If you drink less than 2 cups (500 mL) of milk or fortified soy beverage daily, you will probably need a vitamin D supplement.

If you are lactose intolerant, you can buy special milk in which the lactose has already been broken down. You can also use chewable lactase tablets. Try hard cheeses and yogurt, as they are often easier to digest for people who are lactose intolerant.

Other foods contain calcium, but don't provide all of the important nutrients found in milk products.

Vegetables such as bok choy, broccoli and kale and nuts such as almonds and sesame seeds contain calcium. However, you need to eat a large amount to equal the calcium from one glass of milk. For example, you would need to eat 750 mL (2 1/2 cups) of broccoli OR 250 mL (1 cup) of almonds OR 45 mL (3 tablespoons) of sesame seeds to obtain the calcium that is found in 250mL (1 cup) of milk. These foods also don't provide the vitamin D that is added to milk.

This Factsheet distributed compliments of:





Meat and Alternatives

ACTIVITIES:

1. Have a dietitian / nutritionist speak on alternate proteins
2. Have a community food advisor speak and / or demonstrate protein use and alternates
3. Have the members suggest different protein combinations using vegetable proteins.
4. Prepare the tofu recipe included in this manual to introduce members to soybean protein -visit www.soybean.on.ca.
5. Prepare a lentil dish - you can find recipes at <http://www.pulsecanada.com/recipes>
6. Look at a vegetarian entree and identify protein sources.
7. Prepare one kind of meat in several different ways. For example, ground beef as hamburgers, in a casserole, meatballs and pizza.
8. Visit your local butcher or the meat department of a local grocery store, and have members choose the leanest cuts of meat. You can further discuss what meat products would have the highest fat content (things like chicken wings & processed meats), and what would have the lowest (chicken breast without skin etc.)

ACTIVITIES: In Depth

1. Have a member contact Pulse Canada - <http://www.pulsecanada.com/about-us/contact> - and arrange for a representative to give a demonstration or presentation about lentils.
2. Have members research soybean production in Ontario and report on their findings.
3. Have a member prepare a listing of vegetable proteins and the appropriate supplementation.
4. Compare the cost of a meat protein meal and a vegetarian meal.
5. Report on how one meat or meat alternative is used in different cultures.

Resources:

- www.dietitians.ca
- www.teachnutrition.org - quiz on Canada's Food Guide
- <http://www.pulsecanada.com> - Pulse Canada



Meats and alternatives are a major source of protein, which is the basic building block of the body. These also supply other nutrients such as fat, carbohydrates, vitamin B12, iron, and calcium.

Protein:

- Allows for growth
- Helps maintain and repair tissues
- Can be used for an energy source
- Is involved in muscle contraction
- Helps make up enzymes, which speed up body reactions
- Is an important part of antibodies, which help defend the body against illness

Protein is available from:

a) Animal Sources: beef, pork, chicken, turkey, fish, seafood, eggs, milk, and cheese

b) Non-animal sources: peas (chickpeas, split peas), beans (kidney, soybeans, and Romano beans) and lentils. These are often referred to as legumes. Tofu made from soybeans, peanut butter, other nuts and certain seeds are also sources of protein.

Canada's Food Guide suggests that you should **lower** your fat intake by choosing leaner cuts of meat. The fat in meat and animal products is saturated which has been linked with an increased incidence of heart disease. Choose meat that does not have a lot of **marbling** (white sections in the meat or fat). Remove the skin from poultry as the fat is directly under the skin. Most types of fish are low in fat. The fat in **tuna and salmon** is the "good" kind of fat.



Salmon Sushi

Cold cuts and processed meats will be higher in fat, so use these less often. Examples of these meats include: bologna, salami, sausages and wieners. Try some **vegetable proteins**. Vegetable protein is not often a "complete protein", meaning that it does not have all the essential amino acids that are needed by the human body. To make these a complete source of protein, **combine** them with a whole grain or complimentary protein. You often do this already by adding milk to your cereal, or cheese with the macaroni, or beans with brown rice and peanut butter on whole wheat bread. The soybean is the only "complete protein" vegetable.

The method in which you prepare the meat and alternates group also affects how healthy the food is. Try boiling, broiling, barbecuing, baking and stewing.

These methods do not add additional fat. Frying, breading and deep-frying add additional fat, which is not desirable.





Here is how to combine two plant foods to make a complete protein:

Beans + Flour Tortilla = Bean Burrito

To save money on protein foods, use low-cost combinations. Dry beans, rice, noodles, tortillas and vegetables often cost less than meat.

Combine the foods below to make a low cost protein combination:

1 1/2 ounces natural cheese + 1/2 cup of rice

1 cup refried beans + 1 tortilla

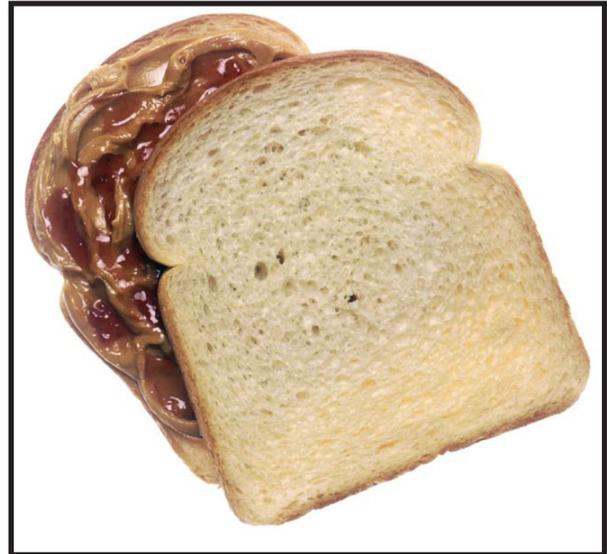
4 tablespoons peanut butter + 2 slices of bread

2 ounces of American cheese + 1/2 cup of macaroni or other pasta

1 cup cereal + 1 cup milk

1/2 cup of cooked vegetables + 1/2 cup of nuts

1 cup great northern beans + 2 inch cube of corn bread



Canada's Food Guide suggests that you consume 2-3 servings of meats and alternatives every day.

One serving is:

50-100 grams meat, fish or poultry

1-2 eggs

125 - 250 ml (1/2 - 1 cup) beans

30ml (2 tbsp) peanut butter





TOFU RECIPES

Tofu Quiche

Ingredients:

30 ml (2tbsp) butter	250 ml (1 cup) tofu, mashed
1 small onion, sliced	15 ml (1 tbsp) oil
125 ml (1/2 c) cooked broccoli	5 ml (1 tsp) salt
125 ml (1/2 c) cooked cauliflower .	5 ml (1/8 tsp) dried mustard
2 eggs, well-beaten	15 ml (1 tbsp) dried chicken broth
1 - 22 cm (9") baked pie shell	

Sauté onion and spread in bottom of the pie shell, add broccoli and cauliflower. Blend eggs, tofu, oil, salt, mustard and seasoning. Pour over vegetables and bake at 350F (180C) until set, about 30 minutes.

Variation: Sprinkle 250 ml (1 cup) Swiss or cheddar cheese on top of the vegetables before pouring tofu mixture over top.



Tofu Lemon Cream Pie

Ingredients:

75 ml (5 tbsp) cornstarch
125 - 175 ml (1/2 - 3/4 cup) white sugar
375 ml (1 1/2 cup) water
juice and rind of 1 lemon
375 ml (1 1/2 cup) tofu, crumbled
1 22 cm (9") pastry or crumb crust

Combine cornstarch and sugar in saucepan, stir in water and heat until mixture thickens. Cook for another 2 minutes, stirring constantly. This can be done in the microwave, stirring at 2-minute intervals until thickened.

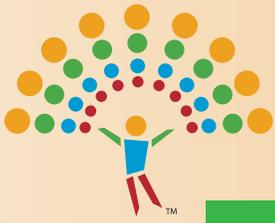
Mix tofu, lemon juice and rind in blender until smooth. Add the thickened cornstarch mixture, and blend again. Return to saucepan and heat, stirring constantly until it reaches the boiling point, but does not boil. Let cook about 15 minutes and then pour into prepared crust.

Chill several hours until set - you can garnish this dessert with some lemon zest curls.

Tofu Lasagna

Using a regular lasagna recipe, substitute tofu for ground beef. Tofu can be browned in the frying pan using soy sauce before adding, so that it will become brown in colour. For a quicker recipe, most grocery stores now carry a soy "ground beef" product that does not require any processing.





Step Right Up

to Healthy Eating

Making the most of Meat and Alternatives



Meat and Alternatives are 1 of 4 important food groups in *Eating Well with Canada's Food Guide*. Together with Vegetables and Fruit, Grain Products, and Milk and Alternatives they form a tried and true blueprint for healthy eating.

Meat and Alternatives are tasty and versatile.

Whether it's a juicy burger, tender chicken breast, poached fish fillet, tofu burger, fluffy scrambled eggs or spiced kidney beans, Meat and Alternatives offer up terrific variety and taste as a key part of healthy eating.

Meat and Alternatives provide a variety of essential nutrients including protein, iron, B vitamins and zinc.

- **Protein** is a part of every cell in our bodies. Without enough of this essential building block, your body could not maintain or repair itself.
- **Iron** is important because it carries oxygen to all your body parts, helps prevent infections and helps your body make energy. It also helps to prevent anemia that can make you feel tired.
- **B Vitamins** (e.g. thiamin, riboflavin, niacin, folacin, and vitamins B6 and B12) help your body to make red blood cells and to use the energy (calories) found in the foods we eat.
- **Zinc** is needed for proper growth and helps your body to fight infections.

Avoid portion distortion – you can get too much of a good thing.

Canada's Food Guide recommends servings of Meat and Alternatives every day. The recommended amount varies with age and gender.

Age	# of Food Guide Servings of Meat and Alternatives
Toddlers 2-3 years	1
Children 4-8 years	1
Youth 9-13 years	1-2
Teens (female) 14-18 years	2
Teens (male) 14-18 years	3
Adults (females) 19 years and older	2
Adults (males) 19 years and older	3

One Food Guide Serving of meat equals 75 g (2 1/2 ounces) cooked. This is approximately:

- 1/2 of a chicken breast or a chicken leg with thigh (without skin)
- 125 mL (1/2 cup) of flaked fish or ground meat
- 3 slices (75 g) of packaged luncheon meat (check the package label for the number of grams per serving)

As for alternatives, A 175 mL (3/4 cup) serving of cooked beans, peas or lentils, or soybean curd (tofu) counts as one Food Guide Serving. A Food Guide Serving equals 30 mL (2 tbsp) of peanut butter, 60 mL (1/4 cup) shelled nuts and seeds, or two eggs.



Tips for choosing and enjoying Meat and Alternatives

Select lean cuts of meat to avoid excess fat.

For beef, choose well-trimmed inside, outside or eye of round or sirloin cuts and lean or extra lean ground beef. For pork, choose lean ham, pork tenderloin or loin chops. For lamb, choose cuts from the leg and loin.

Enjoy poultry without the skin. Reduce saturated fat. Choose items like skinless chicken or turkey breasts or thighs, or remove the skin from poultry at home before cooking.

“Let’s go fishing”. Fish and shellfish are tasty meat alternatives. Some fish, such as mackerel, lake trout, herring, sardines, albacore tuna and salmon are rich in omega-3 fatty acids, a type of fat that, together with a balanced eating plan, may help prevent some forms of heart disease.

Beans, beans and more beans! Meat Alternatives such as beans (kidney, soy, black), peas, and lentils are lower in fat and still provide protein, iron and B vitamins. Legumes are a great source of fibre. Enjoy soups, stews, casseroles and salads with legumes or use pureed beans or chick peas in dips and spreads.

Experiment with Soy! Soybeans are unique among beans because they contain all the building blocks or amino acids found in other complete protein foods like meat. Experiment! Use tofu in place of half the ground beef in meatloaf, chili or tacos. Or snack on a handful of soy nuts rather than chips or crackers. The best nutritional choice is tofu made with calcium.

Explore the Alternatives! In moderation, eggs can be part of healthy eating. They’re an inexpensive source of high quality protein and make for fast and easy meals.

Go Nuts! Nuts and seeds are higher fat foods. However, the mono and polyunsaturated fats they provide has been linked to health benefits. Enjoy nuts, nut butters and seeds in small amounts in meals and snacks.

Keep it safe – when choosing, storing and cooking meat and poultry.

- Keep all meats and poultry cold – make it the last selection in your grocery cart and re-refrigerate quickly.
- Defrost in the refrigerator, not on countertops.
- Cook meat and poultry thoroughly. You can safely eat whole pieces of beef or lamb medium rare, which means the centre can show a hint of pink. Always cook ground beef well so no pink remains. A meat thermometer is the best way to tell when meat is cooked to the right temperature.

Will eating more protein-rich foods help build my muscles ?

It’s a myth that protein alone builds muscle mass. Adequate protein, along with enough calories and balanced eating, all contribute to the development of healthy muscles. Overdoing the protein adds extra calories and is not necessary. For muscle building make sure that your workout contains a strength training component.

True or False: Whey protein and amino acid supplements will help produce bigger muscles.

Answer: False – These products can be expensive, offer no advantage over food choices providing adequate calories and protein, and excess amounts can be harmful.

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This Factsheet distributed compliments of:





Fats!

Roll Call: How much fat do you think you consume daily? OR What is a 'hidden fat'?

Answer to Roll Call:

ACTIVITIES:

1. Go to a butcher shop and request a kilogram of fat. Show to the group.
2. Get butter pats and show members how much 15 ml (1 tbsp) and 5 ml (1 tsp) represent.
3. Have members keep a 'food journal' for a week - review these and try and calculate the amount of fat consumed. Visit EATracker to help you calculate this amount - www.dietitians.ca
4. Try extracting oil from seeds. Place a double layer of paper towels on a hard surface. Put canola seeds on the towels. Take a heavy rolling pin and crush the seeds. The oil will stain the towels.
5. Hold a taste-test for different types of oil, such as canola, sunflower, olive, peanut, and vegetable. Is there a difference? Have members look at the nutritional labels and judge which is the best oil to use, for taste, fat content and calories.
6. Have members make up a chart / poster about the best kinds of fat, and promote or display it in a grocery store, library or mall, or send a flyer / poster to a newspaper.
7. Take a recipe and identify fat sources and see if you can alter these or reduce them.
8. Check labels on baked goods and find the sources of fat. If possible, compare homemade cookies, to packaged store-bought cookies, to those found in the bakery section of the supermarket.
9. Invite a speaker from the Heart and Stroke Foundation, Community Food Advisors, or Public Health Dietitian on fats / heart health.

Resources:

- www.dietitians.ca
- www.heartandstroke.ca
- <http://www.nutritionrc.ca/programs/cfa-program.html>



Are fats good for you?

Fat is a source of energy and is an essential nutrient.

However, too much fat or the wrong type of fat is not good. Fat is used:

- As an energy source
- In the formation of cell membranes
- In the transmission of nerve impulses
- In the production of hormones
- For transporting vitamins in the body
- As cushioning around organs

Everyone is talking about different kinds of fat and it is all rather confusing.

Healthy Fats include:

Monounsaturated Fats: remember COP (canola, olive and peanut - or if you cannot have peanuts, use sunflower oils) also nuts and avocados. These help reduce the risk of heart disease.

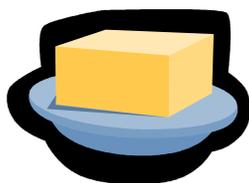
Polyunsaturated Fats: (Omega- 3 & Omega- 6) found in fish and shellfish, flaxseed oil, and walnuts. These fats reduce "bad" cholesterol.

Unhealthy Fats include:

Saturated Fats: from animal fat, cheese, high fat milk products, palm oil, shortening, lard, bacon, and sausage. These increase risk of heart disease and increase cholesterol levels.

Trans Fats: this type of fat is produced during the manufacturing of certain processed foods when vegetable oils are hydrogenated (to increase shelf life). Trans fats are found in: some types of margarine, store bought crackers, cakes and donuts, fried foods like french fries and other foods. Be sure to always check the label.

Cholesterol: found in butter, egg yolks, lard, organ meats, shellfish, high fat dairy products, etc.



What can you do about fats in your diet?

- Use fats sparingly
- Try **not** using butter or margarine on your sandwich
- Choose a margarine that is **low in saturated fat** and contains **no hydrogenated fat** or trans fat (check the label)
- Use cooking oil **sparingly** - use non-stick cookware
- **Bake, broil or grill** rather than frying foods
- Choose **healthier oils** like COP (canola, olive, peanut). Other healthier oils include canola, corn, cottonseed, and olive. Other good choices include the S's: sunflower, safflower, soybean and sesame.
- Choose **lean meats**
- Choose **lower fat milk** (2%, 1 % or skim)
- **Avoid store-bought baked goods** that contain any 'hydrogenated' ingredients - **read the labels!**





Top Ten Tips to Control Your Fat Intake

(from <http://www.dietitians.ca>)

1. Have 5 - 12 servings of grain products each day.
2. Reach for 5 - 10 servings of vegetables and fruit each day.
3. Choose lower fat milk products such as skim or 1% milk, and yogurt or cottage cheese made with less than 2% milk fat more often.
4. Choose fish, poultry and leaner meats, with fat and skin removed. An appropriate serving size is 50 - 100 g or about the size and thickness of a deck of cards.
5. Have foods that are baked or broiled more often than deep-fried foods.
6. Have more meals made with beans, peas and lentils.
7. Cut down on extras such as butter, margarine, oil, gravy and rich sauces.
8. Choose lower fat snack foods such as light microwave or air popped popcorn (without added butter or topping) and pretzels.
9. Read package labels and choose lower fat versions of salad dressings, peanut butter, cream soups, etc. To be called low fat, a food must contain less than 3 grams of fat per serving.
10. Flavour foods without fat using lemon, salsa, mustard, ketchup, herbs and spices.



Reminder - What to Eat Every Day



Grain Products

Eat lots of grains such as bread, cereal, rice, bagels and buns, spaghetti, pita bread, muffins, crackers, bread sticks.

Vegetables and Fruit



Eat all kinds of vegetables and fruit especially dark green and orange ones such as broccoli, spinach, carrots, squash, cantaloupe, oranges.



Milk Products

It's important to get milk products such as cheese, lower-fat milk and yogurt.

Meat and Alternatives



Choose lean meat, poultry, fish, peanut butter, eggs and legumes like baked beans and pea soup



Healthy Eating Challenge*

Check it out with
Canada's Food Guide
to Healthy Eating

GRAIN PRODUCTS recommended # of servings 5-12 my total _____ # still required _____	VEGETABLES & FRUIT recommended # of servings 5-10 my total _____ # still required _____
MILK PRODUCTS recommended # of servings 2-4 my total _____ # still required _____	MEAT & ALTERNATIVES recommended # of servings 2-3 my total _____ # still required _____
Other Foods my total _____	



Set a Nutrition Goal

To consume ___ more serving(s) from the _____ Food Group each day

To choose more variety from the _____ Food Group each day

To change my food choices (especially OTHER FOODS) by _____

Strategies

To do this I will:

Possible Barriers:

Strategies for Overcoming

Barriers: _____

Nutrition Goal Checklist

Did I try to meet my goal today?

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
week 1							
week 2							
week 3							

Evaluating My Success

How many days did I meet my nutrition goal?

Did any barriers get in the way?

How did I overcome them?

Congratulations!

Enjoy healthy eating 'round the clock and for a lifetime!

* adapted from: *The Eating Edge: A Guide to Healthy Eating for Teens*, Dairy Farmers of Ontario, 1992.





Step Right Up to Healthy Eating

Dietary Fat – The Good, the Bad and the Ugly

Should I use butter or margarine? Are nuts healthy? Is fat bad for my heart? What are omega-3 fats?

Are you confused about fat? You are not alone. Dietary fat has been a hot topic for years and ongoing research has shown that not all fat is bad. In fact, some fat is good for you.

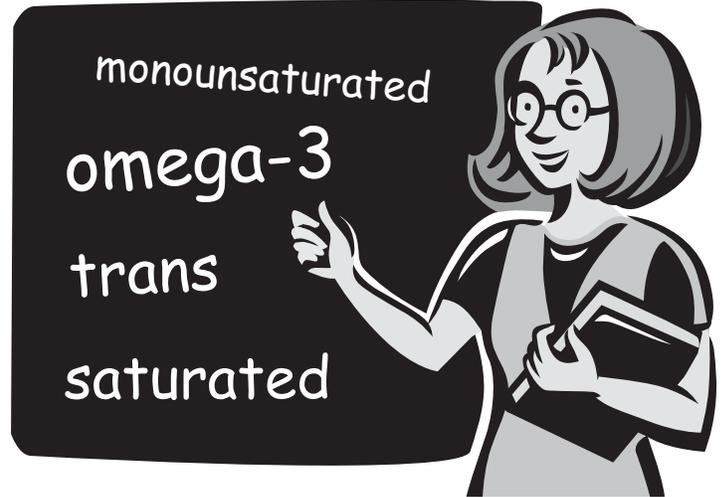
Dietary fat and your health

Your body needs fat for many important functions. Therefore, healthy eating includes eating some fat. However, as fats and oils are high in calories portions should be small to prevent excess weight gain. Of greatest importance is the type of fat you choose. Saturated and trans fat may raise your risk of heart attack or stroke because they increase the “bad” LDL cholesterol in your blood. On the other hand, some unsaturated fats lower your risk because they lower the LDL cholesterol and maintain a protective level of “good” HDL cholesterol. Other unsaturated fats lower risk by lowering blood triglyceride fat and reducing excessive blood clotting.

Getting to know fat

The Good Fat – Unsaturated

All unsaturated fats are healthy. Replacing saturated and trans fat with unsaturated fats can help improve your cholesterol levels and lower your risk for heart disease and stroke. Unsaturated fats include monounsaturated and polyunsaturated fats. All liquid vegetable oils, nuts and seeds are high in unsaturated fat. The omega-3 polyunsaturated fatty acids found in fatty fish may also lower blood triglyceride levels and improve immune and inflammatory disorders.



The Bad Fat – Saturated

Much of the fat in animal products is saturated. Fatty meats and high fat dairy products such as cheese are the main contributors of saturated fat in our Canadian diet. Plant sources of saturated fat include palm kernel and coconut oil, plus manufactured hydrogenated vegetable oils. These saturated fats are commonly used in processed and packaged foods.

The different types of saturated fat are currently being studied closely to determine which pose the greatest risk for heart health.

Dietary cholesterol is also present in animal products. Foods such as eggs and shrimp contain cholesterol, yet are low in saturated fat and therefore can be enjoyed in moderation.

The Ugly Fat – Trans

Trans fat is industrially produced when vegetable oils are partially hydrogenated. Trans fat not only increases your “bad” cholesterol but also decreases your “good” cholesterol, and is the most risky fat for heart disease. Trans fat may also increase blood vessel inflammation that increases risk for other chronic health problems. There are no known health benefits from industrially produced trans fat. Many Canadian food manufacturers are working to remove trans fats from their products.





Making healthy fat choices

Limit the total amount of fat you eat

- Choose food products with less fat.
- Check the Nutrition Facts table on food labels and buy foods with a low amount of fat (grams or %) per serving; it is not necessary to always buy “fat-free products.”
- Use only a small amount of fat or oil in food preparation; avoid deep-frying.
- Reduce the quantity of fat used in homemade baking.
- Enjoy nuts and seeds in small portions.
- Limit spreads, dressings, rich sauces, gravies and high fat desserts and snack foods.

Avoid trans fat

- Buy foods with zero trans fat or with the least amount of trans fat per serving.
- Read the ingredient list and avoid or limit foods made with partially hydrogenated vegetable oil or shortening.
- Limit commercial baked goods, crackers, cookies, biscuits, pies, waffles, snack foods and deep-fried fast foods that may be high in trans fat.

Reduce saturated fat

- Limit shortening, hard or hydrogenated margarines, butter, and lard; only have gravy and other high fat sauces on occasion.
- Check the ingredient list on food labels and limit foods containing hydrogenated vegetable oil, shortening, coconut oil, palm kernel oil, beef tallow, suet, or cocoa butter. These ingredients are often found in commercial baked goods, crackers, chocolate bars, specialty coffees, non-dairy creamers and whipped toppings.
- Choose lean cuts of meat such as sirloin, loin, round, rump, and extra lean ground beef; trim off fat; remove skin from poultry; limit processed meats such as bologna, wieners, bacon, sausages, pepperoni.

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- Choose skim or 1% milk, low-fat yogurt and “light” or part-skim cheeses; limit ice cream, regular sour cream, coffee cream and whipping cream.
- Look for the percentage of milk fat (%MF) on the label of dairy products and choose those with the lower percentage, for example cheese with less than 22% MF.

Choose monounsaturated fat

- Use olive, canola or peanut oil in cooking and baking.
- Choose salad dressings and soft non-hydrogenated margarines made with these oils.
- Snack on a small handful of peanuts or nuts such as almonds and pecans.
- Sprinkle slivered or chopped nuts, or seeds on cooked vegetables and salads.
- Spread peanut butter or nut butters on toast and bagels instead of butter.
- Toss slices of avocado into a salad.

Increase omega-3 fatty acids

- Enjoy two fish meals a week using fresh, canned or unbattered frozen fish.
- Choose fatty fish such as salmon, sardines, herring, mackerel and trout. Shellfish is also a good source of omega-3 fatty acids.
- Sprinkle ground flaxseed, wheat germ, walnuts or pumpkin seeds on cereal, yogurt, and salads; use them in baking.
- Use canola oil in cooking and baking; choose salad dressings and non-hydrogenated margarines made with canola or flax oil.
- Choose foods fortified with omega-3 fatty acids; food manufacturers may use terms such as omega-3, n-3, ALA, EPA, or DHA.

This Factsheet distributed compliments of:





Vegetarian Diets

Roll Call: Why might someone want to follow a vegetarian diet?

Answer to Roll Call:

ACTIVITIES:

1. Using a flip chart and markers or whiteboard, run a brainstorming session on the concerns people must consider when following a vegetarian diet.
2. Try introducing members to store-bought hummus and pita bread, or make hummus - you can find a recipe by going to <http://en.wikibooks.org/wiki/Cookbook:Hummus>.
3. Contact Lentil and Pulse boards and try making some recipes using lentils and pulses.
4. Have an identification game- identifying different lentils and pulses.
5. Make vegetarian split pea soup - for a recipe, visit http://gatewaygourmet.com/vegetarian_split_pea_soup.htm
6. Have a person who follows a vegetarian diet speak to the group about their diet, and the meal planning involved.
7. Have a dietitian or nutritionist teach the group about vegetarian eating. You can find a dietitian by going to www.dietitians.ca.
8. Visit a health food store, and do a survey of all the vegetarian foods and products available. Make a note of their costs and compare with non-vegetarian products.
9. Go on a field trip to a restaurant where they serve a wide range of vegetarian meals.
10. Have members plan a vegetarian diet for a day.
11. Take a cooking class at a grocery chain on vegetarian cooking or meal planning.

Resources:

- www.dietitians.ca
- www.nutrispeak.com
- <http://www.yvesveggie.ca/index.php>



Many people have decided to eat less of animal products such as:

- meat
- dairy products
- fish
- eggs
- poultry

This means that they are following some vegetarian eating style in their life. There is no single vegetarian eating pattern and vegetarian diets differ.

Some types are:

Semi - Vegetarians: allow limited amounts of animal products

Lacto Vegetarians: avoid all the above listed foods except dairy products.

Ovo-Lacto Vegetarians: avoid only meat, fish and poultry

Vegans (Total Vegetarians): completely avoid all animal products

Some of the reasons people choose a vegetarian lifestyle are:

- For their health
- For animal rights
- For environmental reasons
- For religious reasons

??? Adequate Protein Content???

In fact, most North Americans eat too much protein, more than we actually need. Animal products are higher in protein than plant products and are a more complete protein source (contain all the essential amino acids). However, with proper planning and combination of foods (legumes, grains and vegetables) vegetarians can meet their protein requirements.

Many other countries of the world have followed vegetarian eating for centuries. Some of the food combinations from other places are:

N. America:	peanut butter sandwiches
Middle East:	lentil soup with crackers or flatbread
France:	pea soup (without the ham) and a roll
Middle East:	hummus and pita bread
E. United States:	baked beans in tomato sauce and corn bread
China:	tofu with rice and stir-fried vegetables
Middle East:	falafel and a pita
India:	dahl and chapattis or rice

Many of these foods are on our menus and in stores now, and are relatively inexpensive.





??? Enough Iron???

The major source of iron in the North American diet is from red meat. People from the Middle East, Africa, Asia, Central and South America get their iron from lentils, split peas, beans, and tofu. Egg yolks are also good sources of iron.

Eating sources of Vitamin C (vegetables and fruits) with foods containing iron will help your body **absorb** the iron.

Black tea and other caffeinated drinks **decrease** iron absorption, so select juice, water or herbal teas with your meals.

??? Enough Calcium???

Milk and milk products are the best source of calcium. If these are not consumed, other good food sources need to be used, such as:

- almonds and brazil nuts
- dark green leafy vegetables and broccoli
- kale and chard
- seaweeds and sesame seeds
- tahini (a sesame-spread, available in many grocery stores)
- firm tofu made with calcium (check label) - also provides iron and protein.
- tofu / soy beverage

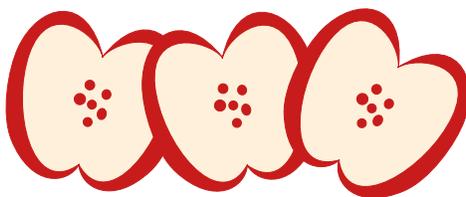
??? Enough Vitamin B12???

Vitamin B¹² is essential for good health. If vegetarians eat eggs or milk they will get Vitamin B¹² from these. Vegans must take special care! They can get vitamin B¹² from nutritional yeast that has been fed on a vitamin B¹² enriched medium (Red Star brand - usually available in health food stores). Some commercially-produced processed soy products, such as veggie dogs, are also enriched with vitamin B¹². Vegans should have vitamin B¹² levels checked by their physician.

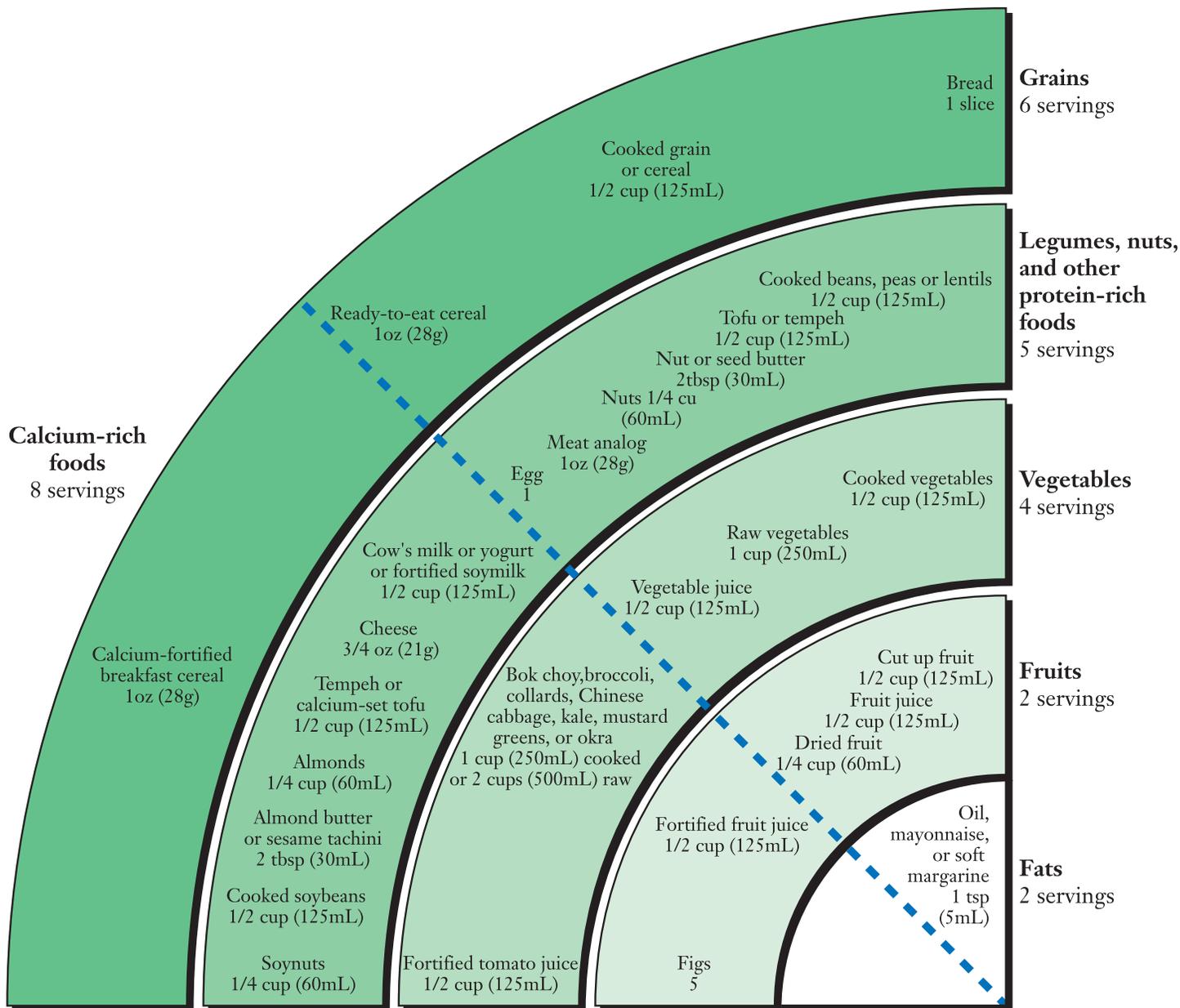
Important Note:

During childhood, adolescence and pregnancy extra care must be taken in planning a vegetarian diet. **Consult a dietitian for guidelines.**





Vegetarian food guide rainbow



Reference: Figure 2 - A new food guide for North American vegetarians. Messina V, Melina V, Mangels AR. *Can J Diet Pract Res.* 2003; 64(2):82. (http://www.dietitians.ca/news/downloads/Vegetarian_Food_Guide_for_NA.pdf)

VEGAN FOOD GUIDE

DAILY PLAN FOR HEALTHY EATING

Get a least 30 minutes of physical activity each day.



Other Essentials -SOURCES OF:
Omega-3 Fatty Acids
Vitamin B12
Vitamin D

Fortified Soymilk & Alternates
6-8 SERVINGS



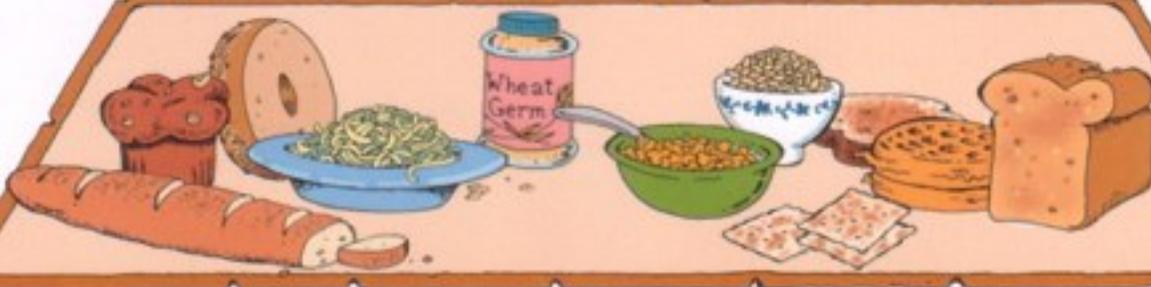
Beans & Bean Alternates
2-3 SERVINGS

Vegetables
3 OR MORE SERVINGS



Fruit
2 OR MORE SERVINGS

Grains
6-11 SERVINGS



Artwork by Dave Brousseau

Eat a variety of foods from each of the food groups.
Drink 6-8 glasses of water and/or other fluids each day.
Limit intake of concentrated fats, oils, and added sugars, if used.





Teens (13 to 18 years)

Allergies / Anaphylaxis

Eat Smart! School Cafeteria Program

Energy In - Energy Out: Finding the Balance

Food Safety

Fuel to Xcell

Getting Started: First Steps in Improving Nutrition in Your School

Peanut Butter-less Lunch and Snack Ideas

School Lunch Ideas

Self-Esteem and Body Image

The School Nutrition Report Card

The Vegetarian Teen

The Vegetarian Teen

Vegetarians need to include foods from the four food groups of Canada's Food Guide to Healthy Eating every day to get the nutrients their bodies need. Read on!

Canada's Food Guide to Healthy Eating, Vegetarian-Style

Meat Alternatives 2-3 servings per day

If you don't eat meat/poultry/fish, you have to choose meat alternatives every day to get enough protein and iron.

- 1-2 eggs
- 125-250 ml cooked beans, peas or lentils
- 30 - 60 ml nuts or seeds
- 50 - 100 g soy "meat" (ex: tofu veggie burger / dog)

Milk Products 3 - 4 servings per day

Calcium Alternatives

If you don't eat or drink milk products, replace them with calcium rich foods to get enough calcium.

One serving is:

- 250 ml milk
- 175 ml yogourt
- 50 g cheese
- 250 ml calcium and vitamin D fortified soy beverage

To replace the calcium in 250 ml of milk, you need:

- 150 g calcium-fortified tofu
- 250 ml calcium-fortified rice beverage
- 250 ml calcium-fortified orange juice
- 750 ml cooked beans
- 750 ml cooked dark green leafy vegetables
- 175 ml almonds

Vegetables & Fruit 5 - 10 servings per day

Grain Products 5 - 12 servings per day

Remember to include foods from the other two food groups!

One serving is:

- 125 ml fresh, cooked, frozen or canned vegetables or fruit
- 125 ml fruit or vegetables juice
- 1 medium sized fruit or vegetable
- 250 ml salad
- 50 ml dried fruit

One serving is:

- 1 slice bread
- ½ bagel, pita, bun, tortilla
- 30 g cold cereal
- 125 ml pasta, rice, barley
- ½ bran muffin
- 175 ml hot cereal
- 1 pancake / waffle

About Iron and Vitamins B12 & D



IRON

Because they don't eat meat, vegetarians can be at risk for iron deficiency. You can get iron from beans, peas, lentils, dried fruit, whole grains, enriched cereals, and some nuts and seeds. Iron from plants is harder to absorb than iron from meat. To help absorb the iron from plants, include vitamin C-rich fruits and vegetables, like citrus fruits, tomatoes, broccoli or green/red peppers at each meal.

Vitamin B12 & D

Vitamin B₁₂ deficiency is a concern for vegetarians who don't eat milk, cheese, yogourt and eggs. Vitamin D deficiency is a concern for vegetarians who don't eat milk, eggs, fish and margarine. Vegans (vegetarians who eat no animal foods at all) should do a little extra homework to be sure they're eating a healthy diet. A registered dietitian can help you plan a healthy menu.

Iron From Plants + Vitamin C = Better Absorption

On The Menu

For breakfast

- Peanut butter and banana on a bagel
- Boiled egg on an English muffin with juice
- Cooked oatmeal with yogourt and fruit

For lunch

- Cheese with salsa & veggies wrapped in a soft tortilla
- Split pea soup, crackers, yogourt and a fruit
- Hummus, pita and raw vegetables

For supper

- Baked beans with a salad and bread
- Vegetarian chili or pizza with a salad and milk
- Bean burritos with a coleslaw salad

For snacks

- Trail mix, nuts, dried fruit
- Popcorn or pretzels
- Crackers and peanut butter



Make Wise Food Choices

Wherever You Go!



Eat Well, Live Well

Brought to you by:

Dietitians of Canada
Les diététistes du Canada

A Crossword Puzzle

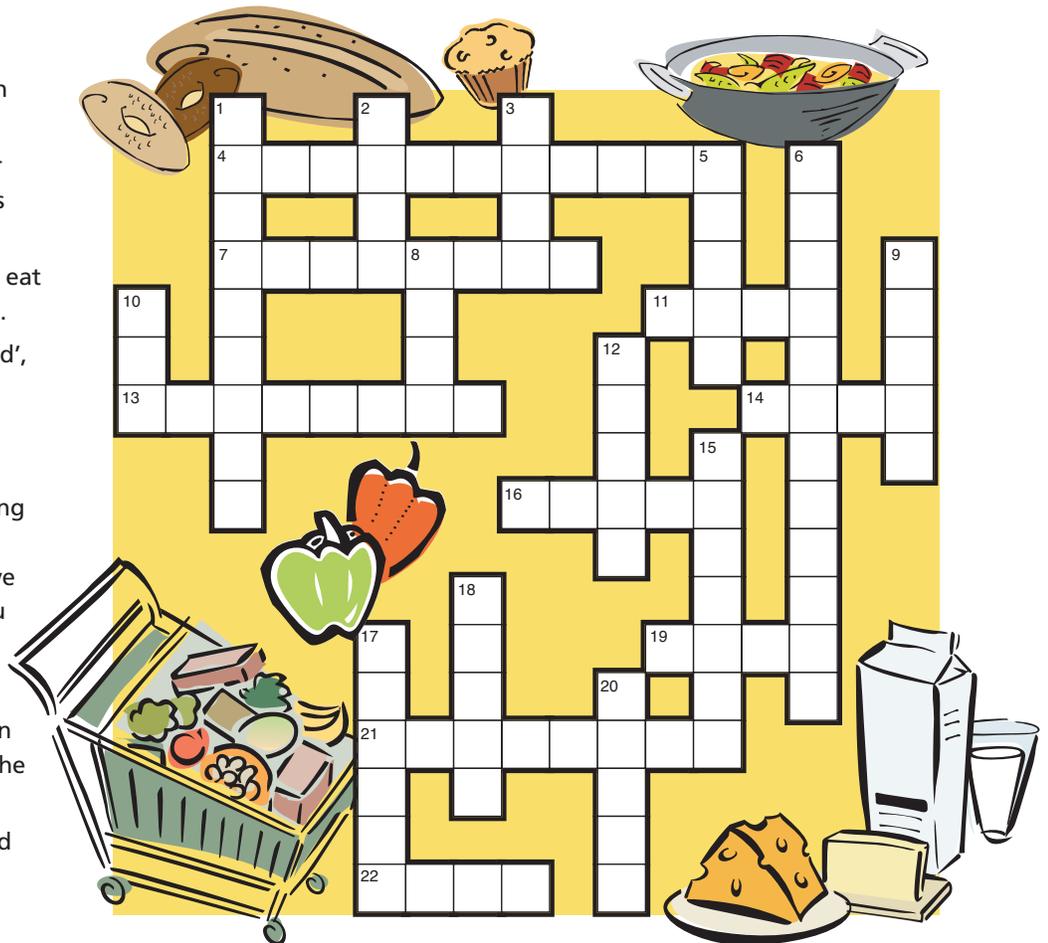
Have fun doing this Crossword Puzzle and take away a few reliable ideas on how to Make Wise Food Choices.

Down

- 1 Your most trusted source of nutrition information.
- 2 True or False: Buns, bagels and other grain products displayed in bulk bins do not require a food label.
- 3 The minimum number of servings to eat every day from Vegetables and Fruit.
- 5 When a food is labeled 'unsweetened', it has no ___ added to it.
- 6 One of the richest food sources of calcium.
- 8 True or False: Most often, when eating out, you can get the facts about the food you order by asking if they have nutrition information for their menu items or go to their website.
- 9 A fibre-rich meat alternative.
- 10 To find how much trans fats are in an item, look under the ___ section in the Nutrition Facts table.
- 12 The Nutrition Facts about a packaged food are listed in a ___.
- 15 The nutrition values in the Nutrition Facts table are listed for a ___ size.
- 17 The scientific name of 'salt'.
- 18 One of the most forgotten and neglected 'wet' nutrients.
- 20 On packaged foods, nutrients present in the greatest amount in the food must be listed ___ in the ingredient list.

Across

- 4 Bread and cereal products made with whole grain will list a whole



- 7 A great way to spend family meals.
- 11 For the most nutrition from Vegetables and Fruits, don't look for those that are 'light' in color, but rather those that have a ___ color.
- 13 In addition to Calories, the number of nutrients that must be listed on the Nutrition Facts table.

- 14 Most meats are not high in steel, but rather provide ___.
- 16 True or False: Whole fresh fruits and vegetables require a nutrition label.
- 19 Before you go grocery shopping you should make a ___.
- 21 Ask for this 'on the side' when ordering salads.
- 22 A healthy alternative to carbonated beverages.



Check Your Answers

Down

- 1 Dietitian;** Dietitians provide food and nutrition information you can trust. Find a dietitian in your area at www.dietitians.ca/find or call 1-888-901-7776.
- 2 True**
- 3 Five;** Canadians should eat five to ten servings per day of Vegetables and Fruit.
- 5 Sugar;** If 'unsweetened', it has no added sugars nor contains any sugar substitutes.
- 6 Milk Products;** Milk Products provide ample amounts of calcium along with other nutrients such as protein and B vitamins. Check out the %Daily Value section of the food label to see if the food has a 'lot' or a 'little' of these nutrients.
- 8 True**
- 9 Beans;** Dried peas, beans and lentils are fibre-rich protein alternatives; give them a try in casseroles, chili, salads, soups, dips or wraps.
- 10 Fat;** The amounts of Saturated and Trans Fats are both listed under the Fat section of the Nutrition Facts table; Cholesterol has its own section.
- 12 Table;** On most prepackaged foods, Calories and 13 nutrients must be presented in a certain order.
- 15 Serving;** The nutrient information presented in a Nutrition Facts table is based on a specific amount of food. The amount is indicated under the Nutrition Facts heading using the phrase "Serving Size or "Per (naming the serving size)". Make sure the serving sizes are the same when you are comparing the fact panels of two products.
- 17 Sodium;** When people talk about cutting back on salt, it's the sodium in salt that is the culprit for many health problems. If you're trying to reduce the amount of sodium you eat, watch for the term sodium in the ingredient list and also watch the amount of salt you use in cooking and at the table.
- 18 Water;** Water is a key nutrient that keeps our body hydrated and running smoothly. Be sure to drink plenty of water each day.

- 20 First;** In general, ingredients must be listed in descending order of proportion by weight, as determined before they are combined to make the food. The exceptions are spices, seasonings and herbs (except salt), natural and artificial flavours, flavour enhancers, food additives, and vitamin and mineral nutrients and their derivatives or salts, which may be shown at the end of the ingredient list in any order.

Across

- 4 Ingredients;** You'll know it's a whole grain if the words 'whole' or 'whole grain' appear before the grain's name in the ingredient list. Choose 5-12 servings of Grain Products every day.
- 7 Together;** Make the effort and sit down to a family meal as often as possible.
- 11 Dark;** Choose dark green and orange vegetables and orange fruit more often for the biggest nutritional bang for your buck! Remember – fresh, frozen and canned fruits and vegetables are all healthy choices.
- 13 Thirteen;** The Nutrition Facts table provides information on energy (Calories) and thirteen nutrients, based on a serving of stated size. The Nutrition Facts table must appear on the label in the same specific manner.
- 14 Iron;** Iron is needed to keep blood healthy and it also plays a role in many other body functions.
- 16 False;** In addition to fresh fruits and vegetables, some other foods that are exempt from nutrition labels include raw, single ingredient meat, fish and poultry items, individual servings of food prepared for immediate consumption such as grocery store deli salads and sandwiches and grain products such as buns sold in bulk bins.
- 19 List;** While some Canadians make a list and stick to it, many are tempted by impulse buying. Buy only what you need!
- 21 Dressing;** Those little extras like mayonnaise, salad dressings, bacon, sauces and gravy can add extra fat and calories. Ask for them 'on the side' when ordering salads and other items.
- 22 Milk;** Choose lower fat milk products more often such as skim, 1% and 2% milk.

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For more information on healthy eating, visit www.dietitians.ca/eatwell or the healthy eating section at www.canadian-health-network.ca

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Fast Food / Junk Food

Roll Call: What is your favourite fast food?

Answer to Roll Call:

ACTIVITIES

1. Brainstorm with members to determine what is a fast food.
2. Have a competition to determine who can list the most fast food restaurants. Then, have members try and list as many non fast food (aka healthy) restaurants they know. Discuss what healthy choices are available on the menu of their favourite fast food restaurants.
3. Collectively make a list of all the fast foods available. Do a survey with members on how often they consume fast foods.
4. Make some "Fast Foods" from scratch. 4-H Manual "Good Foods Fast" 4-H 1300 89 ME
5. For more good recipes, check out "Healthy Eating 'Round the Clock" 4-H 1350 97. Pizza pockets are fun to make and can be frozen for future use.

ACTIVITIES: In Depth

1. Have a member research the origin of fast foods or when they became popular.
2. Prior to the meeting, have members watch the film "Supersize Me", and discuss the film.
3. Have senior members read the book *Fast Food Nation*, and have them report on the topics in the book at the next meeting.

Resources:

- www.bcdairyfoundation.ca - Great reference to Super Size Me - a video you may want to show to the group. It gives discussion points and research ideas.
- The Lifestyle Journey - Ideas for People Inc. www.ideasforpeople.com. A complete program is available for parents and for youth about healthy choices including food, exercise, and choices for a healthier lifestyle. This is an excellent resource, and is used in schools in Toronto and Alberta.
- *Nutrition Notes: Fast Food - Make the Healthier Choice*. Wellington, Dufferin, Guelph Health Unit, 2003. (Included in the pages following).



Fast Food is a food that is prepared quickly (not usually by you), it is convenient, it is easy to package and is usually a finger food. The food is relatively cheap and is often consumed because you are in a hurry and want to just "grab" something to eat. Fast food companies also use advertising to tempt you to buy their product. This is a place not only to get cheap food but also a place to go for a "good time".

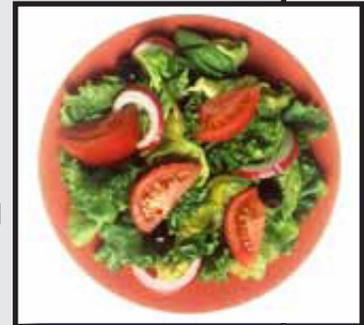
Fast food/ Junk foods are usually high in fat, calories, sugar and / or salt:



- The fat is often saturated (related to heart disease).
- The salt is associated with high blood pressure.
- The excess sugar can lead to tooth decay.
- Too much fat and sugar can lead to **weight gain** as these add lots of energy (kilojoules) to the food.
- These foods contain little fibre, and **low fibre** diets have been linked to cancer.
- Fat, salt, and sugar all make food taste better, and then you want to buy more!

How can we develop a Fast Food strategy??

- Eat fast foods **less often**. Make your own fast food and snacks and brown bag it!
- Make healthier choices when you do eat at the Fast Food places. **Salads** are a good choice.
- Keep foods **plain** or basic. The "extras" or "add-ons" like cheese, bacon, mayonnaise, and gravy all add additional fat. Substitute a salad for fries.
- Choose grilled, broiled, charbroiled, baked, roasted or stir-fried rather than fried, deep-fried, crispy, crunchy, cheesy, creamy, or buttery. Learn the words.
- **Don't Super Size**.
- Try having a **small** size or splitting a regular size with a friend
- Think of fast food as "**Once-In-A-While**"
- **Plan ahead** and have friends in for a snack - it's the friends and good times, and not the fast food that counts.



Pizza Pockets

Leftovers, if there are any, warm up nicely when they are wrapped loosely in aluminum foil. They also make a tasty cold snack.

YIELD: 8 SERVINGS

PREP TIME: 20 MIN.

BAKING TIME: 15 MIN.

-
- 15 mL cornmeal
 - 500 mL shredded partly skimmed mozzarella cheese
 - 213 mL can prepared pizza sauce
 - 250 mL thinly sliced pepperoni rounds (about 125 g)
or your favourite vegetable toppings
 - 1 recipe Perfect Pizza Dough
-

1. Read the recipe. Assemble all ingredients and equipment.
2. Preheat oven to 230°C (450°F). Lightly grease the baking sheet and sprinkle with the cornmeal. Try to get as even a coating across the sheet as possible.
3. Combine the cheese, pizza sauce and pepperoni in the bowl. Set aside.
4. Divide the Perfect Pizza Dough into 8 equal balls; flatten and roll each into a 15-20 cm round disk.
5. Spoon 1/8 of the sauce mixture onto each round.
6. Lightly wet dough around edges with water; fold in half over filling and seal edges tightly by pressing together well with back of fork. Place each on the baking sheet.
7. Bake in bottom half of the oven for 12-15 minutes or until golden brown.

From *SupperTime Survival*, by Bev Callaghan and Lynn Roblin. Used by permission Macmillan Canada.





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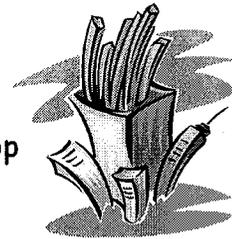
Fast Food - Make the Healthier Choice



Eating out can be fun. Fast food is easy, fast, available and tasty, but it does have a down side:



- ⊗ Serving sizes are often too big. "Super" sizes, double burgers and extra cheese adds fat and calories.
- ⊗ Meals are low in fruit and vegetable choices.
- ⊗ Bacon, sausage, cold cuts, pepperoni, French fries, crispy coating, gravy and "special sauce" are all high in fat, calories and salt, with few vitamins and minerals. Pop does not provide any nutrition except calories from sugar.



Fast food does not have to be bad food! When visiting fast food places, make healthier food choices.

Make up for nutrients you may have missed in your fast food meal during the rest of the day. Grab an apple, a couple of carrots or a whole wheat bagel for your afternoon snack. Wash it down with a glass of milk or 100% juice.

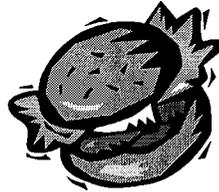


Check out these ways to improve a fast food meal...

What to Order

Burgers

- ✓ Toppings such as tomatoes, lettuce & onion
- ✓ Lower fat toppings such as mustard, ketchup and relish
- ✓ Single/junior size
- ✓ Whole wheat buns



Chicken

- ✓ Grilled
- ✓ Toppings like lettuce and tomatoes
- ✓ Only one piece of fried chicken

Pizza

- ✓ Vegetable toppings: tomatoes, green peppers, onions, mushrooms
- ✓ No more than two slices

Sandwiches

- ✓ Vegetable toppings: lettuce, green peppers, tomatoes, pickles, onions and olives
- ✓ Lean meats like roast beef, turkey, chicken and ham
- ✓ Six-inch rather than a twelve-inch sub
- ✓ Whole wheat bread/buns
- ✓ Try half a sub with soup or salad instead of a whole sub

Salads

- ✓ Dressing "on the side"

French Fries

- ✓ Smallest size available
- ✓ Have a salad or baked potato instead



Beverages

- ✓ 100% Juice or milk
- ✓ Small size
- ✓ Water from the tap - it's free!

For more information, contact the Community Dietitian at your local office of the Wellington-Dufferin-Guelph Health Unit.
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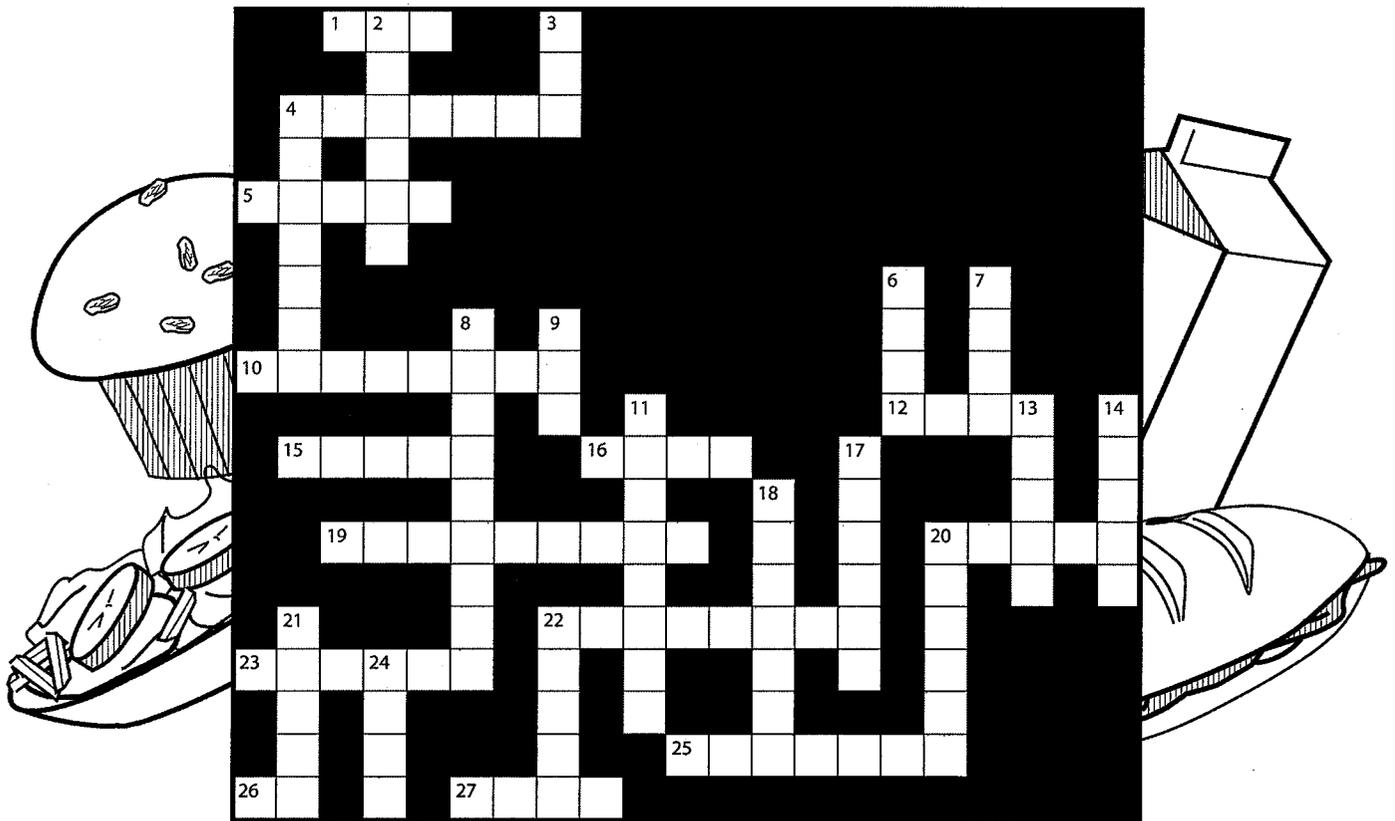


GREAT FOOD ON THE MOVE!

"I'm picking the kids up from school, taking Jane to dance, then taking Susan to soccer practice and then we're all going to parent teacher interviews. Oh, dear, what's for dinner?" Sound familiar? You're not alone.

Have fun doing this crossword puzzle and take away a few ideas on how to eat healthy when you're pressed for time.

Have a great tip on how to eat healthy while on the run? Submit your idea at www.dietitians.ca/eatwell.



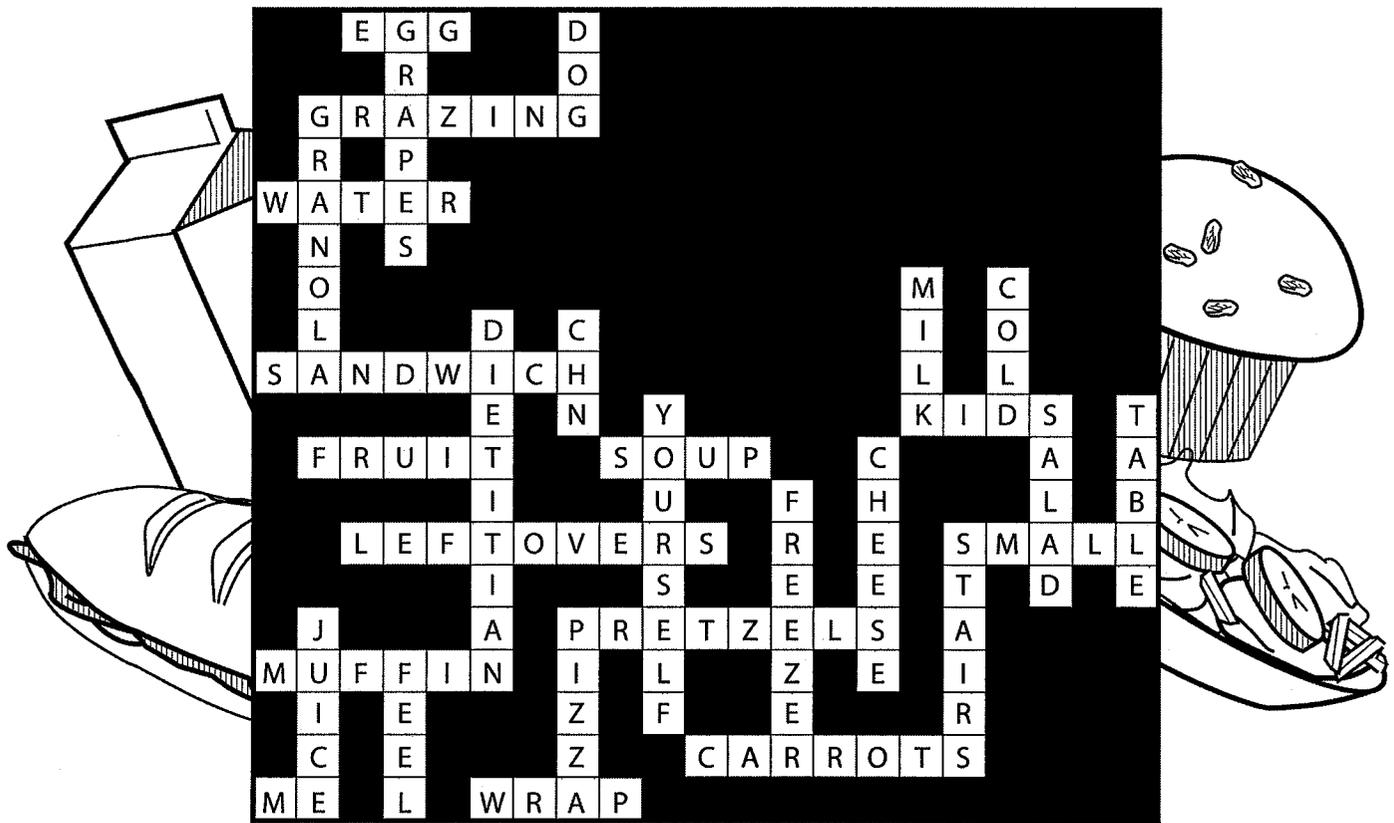
ACROSS

1. Likes to be cooked first and then rest in a cooler in your car for a snack
4. Done by cows and busy people
5. Drink me anytime!
10. The Earl would be pleased to see curried tuna, chicken with grapes or cheese with tomato and sprouts lying inside
12. They love to help make lunches and snacks
15. Parents of the world rejoice! An option for fries at fast food restaurants and school cafeterias
16. Likes to cozy up in a thermos
19. Perfect for lunch the next day without all the fuss
20. A wise option for 'large'
22. Choose me for a savoury snack instead of chips
23. Too many have gotten too big, but in the right size, I'm a perfect morning snack
25. I love to be in sticks or coins and go great with any lunch
26. I'm eating well, being active and feeling great; who am I?
27. Line me with lettuce, top me with turkey, add carrots for crunch, roll me up and say yummy!

DOWN

2. We stick together in green, red or purple bunches
3. I can give you great exercise if you just put a leash on me. Who am I?
4. I love to sit on yogurt, be mixed with dried fruit or wait in a plastic bag all by myself to be eaten
6. Kids like me brown, parents like me skim and everyone loves me for my calcium
7. Keep hot foods hot and cold foods _____
8. Provides trusted food and nutrition advice
9. Trusted source of health information (www.canadian-health-network.ca)
11. A V.I.P. to take care of
13. Toss me or layer me, and then dress me up
14. When all the running around is done, a great place to eat meals
17. Sometimes holy, sometimes not; goes great as a snack with fruit
18. A great place to store 'batches' of food ready to go
20. Walk up and down me to get where you're going
21. A food beverage that comes in a variety of colors
22. Loved by young and old; great hot or cold and has all food groups if planned well
24. More important than how you look is how you _____

"GREAT FOOD ON THE MOVE" CROSSWORD SOLUTION



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To find a Registered Dietitian, check out the Dietitians of Canada website at www.dietitians.ca or call the Consulting Dietitians of Canada at 1-888-901-7776.

This factsheet distributed compliments of:



Pizza Please

Roll Call: What is your favourite kind of pizza, or favourite pizza topping?

Answer to Roll Call:

ACTIVITIES

1. Using a flip chart and markers, ask members and record the answers to the following: what a pizza is made of? Categorize the ingredients according to food groups. For a change of pace, and if you have Internet access, visit <http://4hgarden.msu.edu/kidstour/kids/pizza/pizza.html> to do this activity.
2. Use a coffee grinder and grind some wheat, use a sieve and separate the bran and the germ. Discuss that the bran is the fibre and the germ contains the protein portion of the wheat. Try grinding oats, and barley, and compare the results.
3. Ask the members to identify the different grains that could be used in making a pizza: corn, wheat, buckwheat, oats, barley, rice, and beans.
4. Try making a vegetable pizza or one using tofu (if tofu is browned in a skillet with a bit of soya sauce it will take on a brown colour that may be visually more acceptable - most grocery stores also now carry "veggie" pepperoni in the refrigerated section of the fruit and vegetable aisle).
5. Many different cheeses can be used in pizza; mozzarella is usually one of them but many others can be used.
6. Have the members look at the different %MF (milk fat) or %BF (butter fat) in different cheeses. Ideally you would choose a lower %MF cheese for a healthier choice.
7. Have the members make some curds. Pour 500 mL (2 cups) homo milk into a saucepan. Add 45mL (3 tbsp) vinegar or lemon juice. Turn on low heat and stir slowly until the milk curdles, about 8 minutes. Remove from heat and continue stirring until all curdling stops. You will see solids (curds) and liquid (whey). Separate the curds and whey using a strainer. Discard the whey. Refrigerate the curds. Eat and enjoy.
8. Arrange for the club to visit a cheese factory or a living history museum that may make cheese.
9. Have a speaker from the Dairy Board or Milk Foundation or Community Food Advisors speak on healthy eating.
10. Have a tour of a pizza restaurant in an "off peak" time and see how they make pizzas.
11. Have the members compare the cost of a homemade pizza and a store bought pizza. Compare making the dough from scratch and a store-bought frozen crust. Why might a person prefer to make a pizza at home?
12. Pizza is a favourite snack food today. Have the members ask their parents or relatives what the favourite snack food was 20 and 50 years ago.
13. Ask members to discuss which of the pizza dough recipes on page 68 is a healthier choice (answer- the second).



ACTIVITIES: In Depth

1. Have a member look at the history of pizza and present on what pizza is like in other countries.
2. Research the Internet for a couple of pizza sites (such as Boston Pizza, Pizza Hut, Pizza Pizza) and check the nutritional information provided. Compare and report to the club.
3. Grow Your Own Pizza Garden - follow the instructions on the following page.

ACTIVITIES (Tomatoes) :

1. Have the members list the different ways tomatoes can be used: tomatoes can be used in many ways: raw, stewed, baked, fried, or dried. Tomatoes are made into soup, juice, ketchup, relish, pickles, pastes and pizza sauce.
2. There are many different kinds of tomatoes grown, including beefsteak, bush, roma, small- tiny tims.

ACTIVITIES (Meats) :

1. Pepperoni is a high fat meat and is high in salt (used as a preservative). Have the members brainstorm what would be a healthier choice? Ground beef, lower fat pepperoni, “veggie” pepperoni (made from soy). If there is time, make a pizza that is divided into 4, each quarter with one of chicken, ground beef, lean ground beef, and veggie pepperoni - judge each topping based on taste, appearance, cost and nutrition

Resources:

- Pizza Perfect. Ontario Agri-Food Education Inc. - you can order this teacher’s kit at a cost of \$10 through www.oafe.org, or by calling 905-878-1510. This resource focuses on the fun, taste and healthy advantages of eating pizza, and is divided into three sections, Production, Processing and Marketing, the package includes 26 Activity Cards plus a Teacher’s Guide of teaching strategies, and activity suggestions.
- Healthy Eating 'Round the Clock. 4-H Ontario 1350 97 ME
- www.reneegarden.com - Renee’s sample recipes include several pizza variations.
- <http://4hgarden.msu.edu/kidstour/kids/pizza/pizza.html>: An interactive site: The Garden Pizza Place - members are guided through an interactive ‘quiz to put together a pizza.
- <http://nationalzoo.si.edu/Animals/KidsFarm/PizzaGarden/> - an exploration of where all the parts of a pizza come from.



Grow Your Own Pizza

A pizza garden can be any size or shape. A fun shape would be a garden in the shape of a pizza with segments or slices for different crops. It can also be easily grown in containers on a sunny patio or terrace. If the plot is large the slice can be divided by narrow walkways using bricks, stones, wood or mulch. If your space is very small, just plant pizza herbs.

Prepare the soil by loosening it and adding manure or compost and a fertilizer. Pots will require frequent watering as they dry out quickly.

Most pizza plants are sun lovers, and need 6-8 hours of sunlight.

Some plants you can include:

- tomatoes
- garlic
- basil
- parsley
- oregano
- onion
- peppers

When the garden is ready, host a pizza party and have the guests help make the pizza.
Great fun!





Pizza Crust

Ingredients:

250mL (1 cup) flour
2mL (1/2 tsp) salt
1 pkg Rapid Mix yeast
250mL (1 cup) hot water
45mL (3 tbsp) vegetable oil
375mL (1 ½ cup) flour - as needed

Mix first 5 ingredients. Add flour to make dough. Knead 10 minutes. Let rise 20 minutes (turn bowl upside down over dough). Roll to desired shape. Makes 1 pizza.



Copyright Nova

Perfect Pizza Dough

Ingredients:

500mL (2 cups) all purpose flour
125mL (1/2 cup) whole wheat flour
1 5mL (1 tbsp) sugar
2mL (1/2 tsp) salt
250mL (1 cup) warm water
15mL (1 tbsp) olive oil

Combine flours, yeast, sugar and salt in large bowl. Combine water and oil and stir into dry ingredients until well blended. Turn the dough onto a lightly floured surface and knead for 8-10 minutes. Add more flour only as needed to prevent the dough from sticking. Turn the bowl over the dough and let it rest for 10 minutes. Divide the dough into 2 large rounds or 8 small ones for pizza pockets.

Food Processor Method

In a food processor combine flours, yeast, sugar and salt, process for 5-10 seconds until combined.

Combine the warm water and oil in a liquid measure. With machine running, pour through the feed tube, processing for 60-90 seconds. Turn the dough onto lightly floured surface and knead in more flour if necessary to form a smooth ball. Cover and let rest for 10 minutes before shaping into either large or small rounds. Makes 2 pizza or 8 pizza pockets

Recipe from: Healthy Eating 'Round the Clock. 4-H Ontario 1350 97 ME

Which dough recipe is healthier?





Is pizza a healthy choice?

Pizza can be healthy as it does contain foods from many food groups:

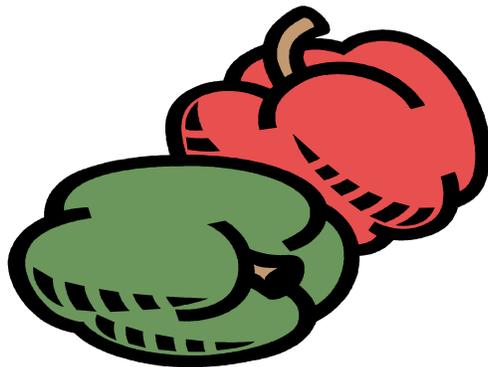
Grains: crust

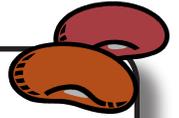
Milk: cheese

Fruits and Vegetables: tomato sauce, pineapple, peppers, and onions

Meats and Alternates: pepperoni, ground beef, ham, veggie pepperoni

So pizza can be a healthy choice. To make it even healthier you could choose to use a **whole grain crust**, use **more vegetables** on the pizza instead of pepperoni; you could also use **tofu**. Eat pizza in moderation - while it can be a healthy choice, one or two pieces will do, and go really well with a green salad!





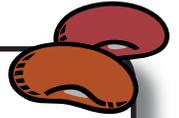
Bravo for Beans

Roll Call: List all the different kinds of beans you know.

Answer to Roll Call:

ACTIVITIES:

1. Why are beans so wonderful? Brainstorm with members about the nutritional value of beans.
2. Have members identify different kinds of pulses: beans, peas, and lentils. You can get a good sampling from the Bulk Barn, or other bulk food stores - and they are very inexpensive!
3. Have members sprout a bean. Take a clear plastic cup and put black construction paper around the inside - cut off the extra at the top of the glass. Put 2 paper towels crumpled up inside the black construction paper. Put each seed between the cup and the construction paper (about 2-3 cm) below the top of the cup. Pour water into the centre of the paper towels until the construction paper is wet. Set the glass in a sunny windowsill and watch! Keep the paper towels moist so the seed can germinate. How long does it take for the seed to sprout? For more in-depth instructions, see the following page.
4. Have members grow a bean tower. Take 3 posts or poles and fasten together as a teepee with twine. Plant pole or climbing beans at the base of each pole.
5. Have members make bean bags in any shape they wish, or sew 6 inch squares together and stuff with beans. If the beans are put in a Ziploc bag first and then put in the beanbag - they will stay dry even if used in a game where they get wet. Check out: Bag O' Beans by Amy. Many games using bean bags: balance on head while walking, or skipping, pick the bean bag off the floor without using your hands (no teeth allowed), toss the beanbag in the air and do the following ... clap hands, clap hands twice, touch your knees, touch your toes, play bean bag between your feet, then jump and pass the bean bag from your feet to your hands. Play 'hot potato' in a circle, toss beanbags into a basket to score points, play 'tic tac toe' with beanbags.
6. Try playing games with a beanbag and a Frisbee: lay Frisbee on the floor and it is the target for beanbags. Play catch with a partner using the frisbee as a glove. Balance the Frisbee on the bottom of feet while lying down; toss beanbags in the Frisbee. Beanbag is in the Frisbee, flip it and catch it. When the beanbag is on your foot, flip it in the air and catch with the Frisbee.
7. Have members make a bean shaker (makes rain sounds) - for instructions visit <http://crafts.kaboose.com/summer-rain-stick.html> or <http://www.enchantedlearning.com/crafts/music/rainstick/>
8. Make a bean mosaic with different kinds and colours of pulses
9. Have a taste fair featuring beans
10. Use sprouts in different recipes:
 - Add sprouts to salads, sandwiches, and as a garnish on soups.
 - Puree sprouts for a sandwich spread or vegetable dip, adding garlic, tahini, lemon, fresh tomato and basil. Or, cook sprouts lightly in a stir-fry.



12. Have members list / research the different uses of soybeans.
13. Have members prepare a tofu recipe.
14. Have members prepare a tofu taste-test - try different recipes. Try a complete meal with tofu in a soup, as a dip, quiche, muffins, pie, pudding, cake, shake.
15. Prepare a press release on Tofu. Send to papers or as a school informational session, or at a mall or test kitchen / grocery store.
16. Prepare a quiz for papers to run on beans/ tofu/ pulses. Perhaps a bean board would supply a prize. Test your knowledge.

How to Grow Bean Sprouts:

You will need: a wide mouthed jar, a piece of screening or cheesecloth, seeds, elastics. Different seeds - alfalfa or clover, and different beans - mung, lentil, garbanzo can be used.

Sort the seeds or beans to remove any debris. Wash the seeds. Add 45mL (3 tbsp) to 50mL (1/4 cup) beans or seeds to the jar.

Cover seeds/beans with water - 6-8cm (a few inches) above the seeds/beans. Let soak overnight or 8-12 hours. Soak overnight. Next morning, cover the jar with cheesecloth or screening and fasten with an elastic band. Turn the jar over in the sink and strain out the water. Fill up with water and pour out again. Repeat the rinsing again the same night. You'll continue this rinsing process morning and evening for 4 or 5 days.

After 4 or 5 days you will see sprouts. Give them a final rinse to remove the hulls.

Resources:

- www.enchantedlearning.com
- www.backyardnature.net/seeds.htm
- www.naturegrid.org.uk/plant/foodparts.html. This is an interactive quiz.
- www.urbanext.uiuc.edu/ - This is a wonderful, interactive site; go to Just for Kids: The Great Plant Escape.
- <http://www.i4at.org/lib2/sprouts.htm> more directions on how to grow sprouts!
- Currie, V. & K. Spicer. *Full Of Beans*. Campbellville, Ont. : Mighton House, 1993.
- Saskatchewan Pulse Growers - www.saskpulse.com
- Ontario Bean Producers. www.ontariobeans.on.ca - they have several recipe and resource booklets available for order.
- Ontario Coloured Bean Growers' Association. www.ocbga.com
- Ontario Soybean Growers - <http://www.soybean.on.ca/> lots of recipe books on soybeans and tofu, including on how to make and cook tofu at home!

A movement game for members:

- 1) The members should begin by walking around the room in any direction or you could play initially on the spot.
- 2) On the various commands listed on the next page, they should carry out the appropriate action.

To Your Good Health - Bravo for Beans



<i>Command</i>	<i>Action</i>
JUMPING BEAN	Jump around the room.
RUNNER BEAN	Run around the room, or, running on the spot (more suitable for young children than running around the room).
BROAD BEAN	Walk around the room taking as large strides as possible. Jump in a star shape
BAKED BEAN	Lie on the floor in a star shape until the next command is given OR lie on the floor and sunbathe.
JELLY BEAN	Move around the room slouching and doing silly movements, OR wobble like a jelly.
CHILI BEAN	Shiver and shake.
FROZEN BEAN	Stand very still.
MR. BEAN	Walk around with a puzzled / vacant expression, muttering under your breath!
BEAN SPROUTS	Stand on tiptoes and make yourself as tall and thin as possible.
STRING BEANS	Stand on the spot, making yourself as long and thin as a piece of string, OR find 2 partners, hold hands and run around in space OR make a long thin shape OR pretend to play an 'air guitar' or violin!
BAKED BEANS ON TOAST	Children lie in the in the middle of the floor area as close to each other as possible OR find a partner and lie on the floor.
FRENCH BEANS	Stand in one spot and do the can-can OR strike a pose and shout 'Bonjour!' OR strike a pose and shout 'Ooooh la la!'
BACK TO BACK BEAN	Find a partner and stand back to back until the next command.
COFFEE BEAN	All cough madly (hands over mouths of course).
KIDNEY BEAN	Stand still with arms and upper body bent forwards at waist OR bend over and touch your toes OR freeze and bend into a C shape and shout 'Chili con carne!' OR make a kidney shape on the floor.
BUTTER BEANS	Sit down and slide around on your bottom (indoors) OR make a cuboid shape.
SANTA'S BEAN	Walk around wobbling your tummy saying 'Ho Ho Ho!'
HAS BEANS	Walk around with a pretend walking stick as if old and frail OR point behind you, look behind you or walk backwards OR everyone lies on the floor and pretend to be dead OR walk backwards.
FLAT BEANS (You can use this at the end of the activity).	Have everyone lie on their backs.
MAGIC BEANS	Members either wave an (invisible) magic wand, or waggle their fingers as if casting a spell OR members return to the exact spot they started the game in (useful to get them to find identifying features of their starting point OR members skip around the room waving a wand.

Source: www.pedagonet.com/PhysEd/game221.htm



The History of Beans

Beans were a popular meal dating back 5000 years ago in Mexico, Turkey, Babylonia and Troy.

The Egyptians considered the bean a symbol of life. Canadian pioneers considered beans a staple of life.

In Canada, beans have been grown commercially since 1856. Less than 1/4 of the crop produced here stays in Canada. The rest is shipped to 70 countries. In Japan and Bavaria, beans are a gourmet delicacy, beans are standard fare in the House and Senate restaurants in Washington, and a staple menu item in Britain where 60% of the population eats beans 4 times a week - at breakfast on toast and during the afternoon at High Tea. International menus feature: bean salads, chili, bean soups, bean flour, bean brownies, pizza and pitas.

Dried beans, peas and lentils are all known as pulses. Beans are usually oval or kidney shaped, peas are round and lentils are a flat, disk-like shape (name from oval shaped 'lens').

They all belong to the Leguminosae or legume family. All the plants in this family have 5 petalled flowers and the seeds are contained in a pod. Each type of bean has a slightly different flavour and texture, but they all absorb the flavours of other foods.

Beans love company!

The Bean Plant

The bean is a dicotyledon because it has 2 bean halves under the seed coat (protection).

The bean seed consists of 3 parts:

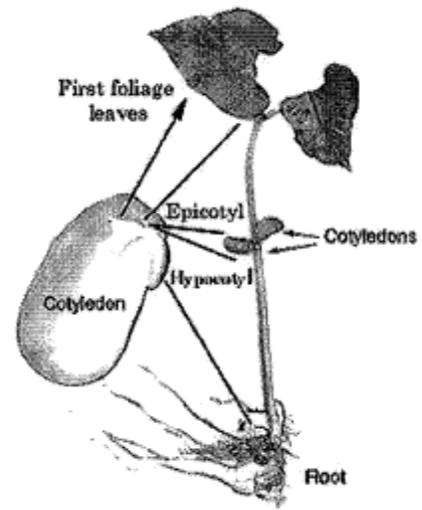
1. A seed coat
2. An embryo - baby plant inside the seed. It contains the first shoot (plumule), the first stem (hypocotyl, and the bottom part develops into the first root (radicle),
3. Cotyledons- food storage

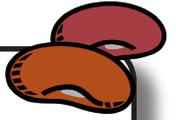
The scar on the seed coat is the hilum (this was where the seed was attached to the fruit), There is a small hole called the micropyle, which allows water and air to enter the seed.

Bean Info

Beans are the richest source of vegetable protein; they have a high amount of soluble and insoluble fibre, and are a source of non-sweet complex carbohydrates (give you energy). Beans also contain impressive amounts of B vitamins, calcium, iron, phosphorus, potassium, zinc, and some trace elements. Beans do not contain cholesterol or gluten and very little sodium and fat.

Many of these factors make beans important in the diet of people who are gluten free (cannot consume gluten from protein in wheat, rye, oats, triticale, and barley), diabetic, low salt, low fat, low calorie, low cholesterol, high fibre and high iron diets.





Beans are a cheap source of **protein**. Bean flour is also available. Beans can also act as an appetite suppressant. They are digested slowly, and cause a slow sustained increase in blood sugar - so, you do not feel hungry for several hours. This is useful for a weight -loss program, and is also helpful to diabetics.

Some claim that introducing beans into your diet causes flatulence. To reduce this, eat beans regularly and increase fluid in your diet. Rinse dry beans under cold running water, after soaking in water with 2mL (1/2 tsp) baking soda, rinse with fresh water. Rinse beans after cooking.

There are many, many types of pulses:

Beans: pinto, white or pea, black turtle, cranberry, small red, dark red kidney, dutch brown, great northern, pink, light red kidney, white kidney, fava, romano, chick peas, yellow eye beans.

Lentils: yellow, red, brown to black coloured.

Peas: yellow (whole or split), green (whole or split)

Meat Alternative

Dried beans can be used as a meat alternative in anyone's diet. However, plant protein sources do not contain all the essential amino acids as meat does. But, Nature has played a little trick - methionine (an amino acid) is low in dried beans but it is high in cereal protein. Lysine (another amino acid) is low in grains such as rice and corn, but it is high in dried beans. So, if we combine the 2 - Bingo! We get the correct combination to form a complete protein.

For a complete protein balance, combine dried beans with:

- Grain and cereal protein (rice, millet, corn, wheat, barley)
- Seed and nut protein (sesame seeds, sunflower seeds, cashew nuts)
- Dairy protein (milk, cheese, yogurt)
- Egg protein

Some examples of these combinations that you probably already eat are:

- Mexican beans with corn tortillas
- Cuban black beans with rice
- Hummus and tahini (sesame seed paste)
- Indian Dal with rice
- Boston baked beans with bread





Cooking Beans

Beans do take a while to cook. There are different methods of preparation:

Long Cold Soak: cover beans with 750 mL (3 cups) water for every 250 mL (1 cup) dry beans. Let stand 6- 10 hours or overnight in a cool place. In the hot summer, place in the refrigerator to prevent the beans from turning sour.

Quick Hot Soak: cover beans with 750 mL (3 cups) water for every 250 mL (1 cup) dry beans. Bring to a boil for 2-3 minutes. Remove from heat and let stand for 1 hour.

Microwave method: described in baked bean recipe.

After soaking, rinse the beans by pouring them into a large colander placed over the sink. Rinse thoroughly with cold running water.

Cook in a large pot. Cover the beans with water and 5mL (1 tsp) cooking oil (this helps prevent foaming over while cooking). Bring to a boil and boil for 5 minutes. At this point, you can rinse the beans again and replace the water. Bring to a boil and then reduce heat to simmer until beans are tender but not mushy. Herbs, garlic and onion can be added during the cooking. Do not add salt, sugar, lemon juice, vinegar or tomato products while cooking, as the acid in them will stop the tenderizing effect of the cooking. Add them when the beans are nearly done, and cook for an additional 10- 15 minutes.

Beans will double in size after cooking: 250 mL (1 cup) dry beans becomes 500 mL (2 cups) cooked beans.

Split peas and Lentils do not require pre-soaking. Rinse before using. Cover with twice the amount of water. Simmer until tender - 30-40 minutes.

The original baked bean recipe may have come from North America. It was based in a Native American dish in which beans were cooked with bear fat and maple syrup in an earthenware pot.

Baked Bean Recipe (From Our Heritage - 4-H Ontario Project Manual)

Ingredients:

1- 454 g pkg. white pea beans	2 mL (1/2 tsp) prepared mustard
1250 mL (5 cups) cold water	1- 170 mL can tomato paste
1 large onion, chopped	75mL (1/3 cup) brown sugar
5mL (1 tsp) salt	25mL (1 1/2 tbsp) molasses or maple syrup
10 mL (2 tsp) cider vinegar	4-6 slices bacon

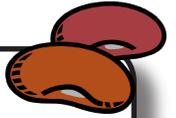
Soak beans by quick, overnight or microwave method. Micro method: Heat water in large microwave casserole until hot for 5 min. Add beans. Cover.

Heat on High for 15 min. or until boiling. Let stand 1 hour. Drain, reserving liquid to be used later. Proceed with recipe.

Combine beans in casserole with all remaining ingredients except bacon slices. Stir well.

Cover with reserved soaking water. Place bacon slices on top of casserole. Cover and bake in slow oven 300F for 4-5 hours. Add more water if needed during cooking to give desired consistency. Yield: 8 servings





European settlers adapted this recipe, using pork fat and molasses. In the mid to late nineties in the United Kingdom a 'war' broke out among the leading supermarket retailers. The price of store branded beans was reduced so much that they were giving customers a penny per tin of beans to take them away (limit of 3 tins per customer). This is directly responsible for the low prices still available today. The prices meant that beans became a staple of students. The reason for the price reduction was to encourage the consumption of the products that would accompany the beans, such as bread, margarine, butter, and cheese, which have higher profit margins.



Hot Bean Salad

Ingredients:

½ lb. bacon (cut up and browned)

4 onions (chopped and browned with bacon)

1 - 14 oz. can lima beans drained

1-28 oz. can kidney beans

1-28 oz. can pork and beans

1 - 19 oz. can chickpeas (drained)

Sauce:

1mL (1/4 tsp) garlic powder

1mL (1/4 tsp) dry mustard

175mL (3/4c) brown sugar

125mL (1/2c) vinegar

Mix all ingredients together in large casserole or roast pan. Mix sauce together and add to beans.

Cook at 350F for 1 hour.



Bean Tarts

from Ontario Coloured Beans

Ingredients

250mL (1 cup) cooked Romano beans

75mL (1/3 cup) brown sugar

125mL (1/2 cup) maple syrup

75mL (1/3 cup) melted butter

2 eggs

125mL 1/2 cup) raisins

Puree beans with syrup, and then fold in eggs, butter and sugar. Place raisins in bottom of uncooked tart shells and pour filling on top. Bake at 350F for 20 minutes. Makes 12 tarts.



Fibre-Rich Bean Muffins - from Ont. Bean Producers' Marketing Board

Ingredients:

250mL (1 cup) raisins	750mL (3 cups) flour
250mL (1 cup) boiling water	5mL (1 tsp) vanilla
3 eggs	5mL (1 tsp) soda
250mL (1 cup) oil	5mL (1 tsp) cinnamon
500mL (2 cup) white sugar	2mL (1/2 tsp) baking powder
1 - 14oz 398mL can beans in tomato sauce	250mL (1 cup) walnuts (optional)
2mL (1/2 tsp) salt	

Mix raisins with boiling water, stir and set aside. Beat eggs, oil, sugar, vanilla and beans until beans are broken. Add flour, remaining ingredients, including raisins and water. Mix well. Spoon batter into large paper muffin cups. Bake at 325F for 30 minutes. Yields: 2 dozen.



Chocolate Chip Cookies - from Ont. Coloured Bean Growers' Association

Ingredients

250mL (1 cup) whole bean flour	50mL (1/4 cup) packed brown sugar
2mL (1/2 tsp) baking soda	1 egg
2mL (1/2tsp) salt	5mL (1 tsp) vanilla
150mL (2/3 cup) sft marg./butter	250mL (1 cup) chocolate chips
125mL (1/2 cup) white sugar	

In bowl, stir together flour, soda and salt. In mixing bowl, cream together margarine, sugars.

Beat in egg and vanilla until light and fluffy. Stir in dry ingredients until blended. Fold in chocolate chips. Drop heaping teaspoonfuls, 5 cm (2 inches) apart on greased baking sheets. Bake at 350F for 10-12 minutes. Makes: 3 dozen.

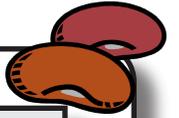
Lentil Salad - from <http://home.istar.ca>

Ingredients

500mL (2 cups) lentils	2mL (1/2 tsp) pepper
1.3L (5 cups) water	125mL (1/2 cups) red shallots /onions, cut in strips
5mL (1 tsp) salt	45-60mL (3-4 tbsp) lemon juice or vinegar
1-2 hot green chili peppers cut into thin strips	

Combine water and lentils in a saucepan. Bring to a boil, cover and cook on low heat until tender but somewhat firm. Drain and add remaining ingredients. Marinate at room temperature for 30 minutes. Refrigerate several hours or overnight.





Sweet and Sour Lentils - from More-with-Less Cookbook

Ingredients:

250mL (1 cup) lentils	65mL (1/4 cup) cider vinegar
500mL (2 cups) water	65mL (1/4 cup) brown sugar
2 bouillon cubes (beef or vegetable)	1 clove garlic, crushed
1 bay leaf	1 Pinch cloves
5mL (1 tsp) salt	Sautéed onion, if desired
65mL (1/4 cup) apple or pineapple juice	

Bring lentils, water and bouillon cubes, bay leaf and salt to a boil. Simmer for 20 minutes. When lentils are cooked, add remaining ingredients. Heat to bubbly and serve over rice.

Soybeans

Soybeans differ from the other pulses in that they are a **complete protein source**; they contain all the essential amino acids. "From soup to nuts" describes all the ways in which soybeans can be used. Soybeans can be used green, dry, whole, cracked, powdered, or sprouted, and as a meat, cheese, bread or oil. Roasted soybeans are a good snack. Soymilk is the 'COW' of China- as a staple food in their diet. It is now used here for people who have a milk intolerance or allergy.

Soy cheese or **Tofu** is the 'meat without a bone'; it is sometimes referred to as the bean curd. It is a soft, custardy white cheese made from soymilk. It is soft, easily digested, a complete protein, has no cholesterol, is low in calories and sodium, is a good source of calcium, and is cheap!

Freshness is the key with tofu. You can store in the refrigerator for up to 1 week. Once opened, change the water daily and store covered. Tofu can be frozen; slice it and freeze in the water or out of it.

After freezing, tofu has a chewier, more porous almost spongy-like texture making it more absorbent. The less water in the tofu when freezing, the finer the texture will remain.

Tofu can be par broiled, fried, deep fried, sautéed, or blended.

Tofu is very bland, and some people find it needs pepping up- add a pinch of tomato juice, onion juice, garlic or dill, with cheese and onion in a quiche, with lemon or banana in a cream pie. Mashed and seasoned it resembles cottage cheese and can be used to substitute it. Sliced and cooked it becomes a substitute for a meat or fish entree, sweetened it becomes a dessert. Tofu is a chameleon, as it takes on the flavours of the ingredients with which it is cooked.

1 brick or cake = 250mL (1 cup)





Scrambled Tofu

Ingredients:

1 onion 1/2 fresh sweet red pepper
4 mushrooms 500mL (2 cup) tofu
1 clove garlic 1mL (1/2 tsp) soy sauce
1 piece fresh broccoli
Oil for cooking

Slice onion, mushrooms, broccoli and red pepper. Sauté vegetables - add broccoli florettes and red pepper - cook 2 minutes or more. Mash drained tofu and soy sauce together. Reduce heat; add tofu, stir and heat until tofu is heated together. Serves 3-4 people as a main dish. Any vegetable combination can be used.

Tofu as Ground Meat

500mL (2 cups) tofu
50mL (1/4 cups) mushrooms
15mL (1 tbsp) oil
1mL (1/4 tsp) pepper
15mL (1 tbsp) soy sauce
2 cloves garlic
5mL (1 tsp) apple cider vinegar

Break tofu into small pieces the size of cottage cheese. Place in fry pan over medium-low heat.

Stir occasionally until the tofu starts to brown. Add seasonings. Marinate for at least 1 hour. The mixture can be stored in the fridge for 1 week or more. Use instead of ground meat.



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Breakfast: Breaking the Fast

Roll Call: Did you have breakfast this morning?

Answer to Roll call:

ACTIVITIES

1. Brainstorm with members the reasons why you might skip breakfast.
2. What should you eat for breakfast? Ask members for ideas of an ideal breakfast, and for a breakfast they could consume if in a hurry.
3. List by brainstorming with members the reasons for having breakfast.
Teens may skip breakfast because they:
 - Have no time or are in a hurry + breakfast foods are boring
 - They are trying to lose weight
 - Dislike eating first thing in the morning
4. Prepare some different breakfast choices: smoothie, cheese strata. See 4-H Manual, "Healthy Eating 'Round the Clock". Try french toast - freeze extra for fast preparation, muffins (refrigerator - already premixed, just bake), and granola.
5. Have members take part in a Breakfast Challenge and see who can eat a good breakfast each morning for 1 week
6. Have members visit a school breakfast program. Have the facilitator speak to the group.

ACTIVITIES: In Depth

1. Have members research breakfast in different countries and/or cultures and tell the group about these.
2. Investigate a breakfast or learning program and give a presentation to the club.

Resources:

- *Start Your Day Right*. 4-H Manual developed by Lennox & Addington
- *Healthy Eating 'Round the Clock*. 4-H Ontario 4-H 1350 97
- <http://www.bcma.org/healthykids/2MealsSnacks.htm>
- www.missionnutrition.ca
- www.breakfastforlearning.ca.



Did you know that 50% of teens do not have breakfast?!

Reasons for eating breakfast are:

- To give you **energy** after fasting all night. Fueling up the tank!
- To give glucose for **brainpower**, to help you learn better at school.
- To get a start on the day's **nutrient requirements**.
- To **prevent** the mid-morning fatigue due to prolonged fasting.

If you skip breakfast in an attempt to control your weight, you are buying into a fallacy. Those who skip breakfast are very hungry as the day goes on and will probably eat more than if they had breakfast, especially evening snacks. We actually overcompensate for what was not eaten at breakfast.

Studies show that students who eat breakfast have:

- Better **concentration** and learning abilities at school
- Make **healthier** food choices during the day
- Have fewer problems controlling their **weight**

If you feel you do not have time for breakfast, try getting your breakfast set out the night before, or put foods in a blender in the fridge, all ready to blend in the morning.

If breakfast foods do not appeal to you or are boring, try something different: even a sandwich and soup can be breakfast! Smoothies or nutritional shakes can be ideal breakfast foods for those who can't handle something more solid.

If you cannot eat first thing in the morning, plan a mid-morning snack or a snack that you can eat on the way to school or work, or try just a glass of juice first thing and gradually increase your breakfast. Sometimes eating something may help settle your stomach.

A good breakfast should have 3 of the 4 food groups. These can be in any combination you wish. Be creative!

Some ideas of breakfast combinations might be:

- cereal with milk and fruit
- toast with peanut butter and a glass of juice
- an egg and toast with a glass of juice
- a yogurt and fruit shake with a muffin



From the different food groups some ideas are:

- Grains, Breads, and Cereals: whole grain cold or hot cereals (avoid sugar coated cereals), whole grain bread, toast, bagels, pancakes, and waffles
- Milk and Milk Products: yogurt, milk - make a shake or smoothie
- Fruit: fruit juices (avoid fruit drinks as these are often high in sugar and low in nutrition), fresh fruit on cereal or in a smoothie
- Meat and Alternatives: eggs, peanut butter, bacon, sausage, 'veggie' bacon, baked beans, cheese.





Recipes from: 4-H Manual: Start Your Day Right

Fruit Smoothie

Ingredients

- 250mL (1 cup) berries, fresh, partially thawed frozen or drained canned fruit
- 250mL(1 cup) milk
- 250mL(1 cup) plain yogurt
- 2mL (1/2 tsp) vanilla
- 25mL (1 tbsp) honey

Blend berries until smooth. Add other ingredients and blend until smooth. Serves 4.



Refrigerator Bran Muffins

Ingredients:

- | | |
|-----------------------------------|----------------------------------|
| 500mL (2 cups) natural wheat bran | 250mL (1 cup) brown sugar |
| 500mL (2 cups) bran cereal | 4 eggs |
| 500mL (2 cups) boiling water | 1.25L (6 cups) all purpose flour |
| 1L (4 cups) buttermilk | 20mL (4 tsp) baking soda |
| 250mL (1 cup) shortening | 7mL (1 1/2 tsp) salt |
| 500mL (2 cups) white sugar | 500mL (2 cups) raisins |

In a large bowl, mix bran and bran cereal. Add boiling water, stir to mix and let stand 10 minutes. Add buttermilk. In another bowl, cream shortening with sugars. Beat in eggs. Add both mixtures together. Mix together flour, soda and salt, add raisins. Add to bran mixture. Cover and refrigerate. To make muffins, spoon batter into greased muffin tins. Bake at 375F for 20-25 minutes.

Frozen French Toast

Ingredients:

- | | |
|-----------------------|-----------------------------|
| 4 eggs | 10 mL (2 tsp) sugar |
| 2mL (1/2 tsp) salt | 1mL (1/4 tsp) ground nutmeg |
| 1mL (1/4 tsp) vanilla | 375mL (1 1/2 cup) milk |
| 8 slices bread | butter or margarine |

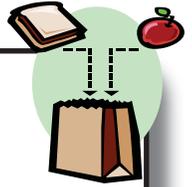
Combine eggs, sugar, seasonings, vanilla and milk in large bowl and beat well.

Dip each bread slice so it will absorb as much egg mixture as possible.

Brown each slice, on both sides, in butter or margarine in a skillet over moderate heat. Cool. To Freeze: lay slices on a greased baking sheet, put in freezer. When frozen, stack slices with foil or waxed paper between, wrap, seal and freeze. Makes 8 slices

Storage Time: in freezer 2-3 months. To Serve: pop in the toaster.





Cool Lunches

Roll Call: What is your favourite lunch?

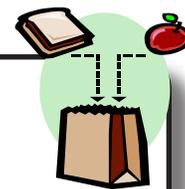
Answer to Roll Call:

ACTIVITIES

1. Have members suggest lunches that they could have.
2. Tally how many members eat homemade lunches versus buying lunch.
3. Have members compare the cost of a meal at school and a homemade lunch
4. Play the "Cool Lunch" game (activity sheet included)
5. Make fruit leather with the group -
 - Make applesauce - add seasoning if desired (or blend any other fruit, or combination of fruits until thick and smooth) and spread it evenly on a lightly greased cookie sheet. Place in the oven (140F or lowest setting) until dry - 4-6 hours. This can also be done in a dehydrator following directions included. Fruit leathers do not require sweetening. Cut the leather into desired size and wrap in plastic wrap. Put in airtight container.
 - Store in a cool, dry place. For longer storage, freeze. You could also try drying fruit in a dehydrator - it becomes very sweet and is a good snack too. Do not add sugar.

Resources:

- www.dietitians.ca
- www.missionnutrition.ca



Lunches need not be boring, and need not be unhealthy.

Lunch is often eaten away from home so we must plan what is feasible and easy to eat. Remember the four food groups when you plan your lunch. Lunch should include a food from each food group. You can probably purchase your lunch in a cafeteria or fast food restaurant, but a homemade lunch is usually **cheaper** and often **healthier**.

Keep it Safe. Lunches may or may not be refrigerated. Think of ways that you could ensure your lunch is "safe" in terms of food safety. Thermos bottles, refrigerated or insulated lunch bags, cold packs for lunches, frozen fruit juice boxes - refrigerate if possible. Sandwiches can be pre-made and frozen - add the lettuce at lunchtime. Always wash your hands before eating!

Lunches should **provide energy** - be power packed with nutrients: raw vegetables, whole grain muffins, cheese with whole grain crackers, milk, and fresh fruits.

Avoid "brown bag blues" by adding variety:

- hummus, pita bread wedges, raw veggies, yogurt, 100% fruit juices
- whole grain tortilla filled with tuna salad, celery sticks, milk
- banana muffin, boiled egg, carrot sticks, milk
- leftover pasta, meat sauce, melon cubes, soy milk
- picnic lunch: cut-up cheese, leftover chicken or roast beef, fruit cocktail, whole grain roll, milk
- cold pizza, milk, oatmeal muffin, dried fruit strip



Pre-packaged lunch items are often high in fat, salt and calories. As well, they are usually quite expensive.



“Cool” Lunch Guide

FOR: _____
[your name]

“Cool” lunches happen when kids get to plan and make the foods they love to eat. Having children take ownership of preparing lunches is a recipe for success!

Check out some ideas below, and then use the blank chart to create your own “Cool” lunch plan. Don't know where to start? Consult Dietitians of Canada website at www.dietitians.ca for tips and ideas. How it works? Have your child pick one food from each of the columns of the “Cool” Lunch Guide. Work together to create fun and interesting lunches to go.

Starting with the grain	On top, in between, or on the side	Crunch!	Thirst Quenchers	Kid pleasing additions
Bagel	Cheese (shredded, cubed, sliced)	Carrots	Milk, white or chocolate milk	Yogurt – for eating or dipping fruit or vegetables
Pita bread	Cream cheese	Celery	100% fruit juice	Cereal bar
Hamburger/ Hot dog bun	Cottage cheese	Lettuce	Vegetable juice or cocktail	Pudding
Bread	Luncheon meat	Peppers	Yogurt and fruit shakes	Canned fruit
Flatbread/ tortilla	Hard boiled egg	Cucumber	Water	Squares (date, rice cereal...)
Pasta/ noodles	Leftover chicken or turkey	Apple		Raisins
Rice	Canned fish (tuna, salmon...)	Pear		Mini-cupcakes
English muffin	Tofu	Strawberries		Cookies (oatmeal, raisin...)
Muffins	Hummus	Oranges		
Crackers	Canned beans	Bananas		
Breadsticks		Broccoli		
		Cauliflower		
		Sunflower and sesame seeds		
		Pickles		

*Because of allergy concerns, check with your school if peanut products are allowed and beware of sharing peanut products



“Cool” Lunch Guide

FOR: _____
[your name]

“Cool” lunches happen when kids get to plan and make the foods they love to eat. Having children take ownership of preparing lunches is a recipe for success!

Use this blank chart to create your own “Cool” lunch plan. Don’t know where to start? Consult Dietitians of Canada website at www.dietitians.ca for tips and ideas.

How it works? Have your child pick one food from each of the columns of the “Cool” Lunch Guide. Combine foods in interesting ways to make fun lunches to go. If you find that some foods are missing, add your favourites to one the columns.

Starting with the grain	On top, in between, or on the side	Crunch!	Thirst Quenchers	Kid pleasing additions





Snacks

Roll Call: What do you like to snack on?

Answer to Roll Call:

ACTIVITIES:

1. Have members list the snacks they enjoy - write them on a flip chart in 2 columns, healthy and not so healthy.
2. Have members plan a snack sheet for use in school - as a handout to send home for parents.
3. Invite a nutritionist or community food advisor to give a presentation on healthy snacks.
4. As a group prepare a new release to a local paper featuring 'Back to School' snack ideas.
5. Have members go through the alphabet naming a snack item, with no repetitions.
6. Judge different snacks: white bread with butter and jelly, whole wheat bread with butter, whole wheat bagel with cream cheese, microwave popcorn, granola bars, raw fruit, crackers (regular and unsalted), etc. Have the members read the nutritional information labels and place snacks in different ranking orders according to fat, salt, fibre, and sugar.

Resources:

Healthy Eating 'Round the Clock. 4-H Ontario. 4-H 1350 97

<http://www.dietitians.ca>

www.bcma.org/HealthyKids/2MealsSnacks.htm

Facts on Snacks - pamphlet. Dairy Farmers of Canada (Ontario), available through www.teachnutrition.org.



Snacks are apart of a healthy diet, but you must remember 3 things:

1. Snack nutritiously; foods like milk, cheese, fruits, vegetables, breads, cereals, and nuts.
2. Be aware of how often you snack, what and how much. Tooth decay is a concern, especially if you like high sugar snacks. 2 or 3 snacks are part of a healthy eating pattern.
3. Be adventuresome - change your snack every day. Try a different snack every day. Eating snacks between meals does help to prevent big swings in your blood sugar levels. This in turn helps your mood and learning ability.

Some nutritious snacks are:

- nuts and apple slices
- cheese and crackers
- yogurt with fruit
- cereal mix and carrot sticks
- fruit smoothie
- bowl of cereal
- choc on the rocks - chocolate milk with ice cubes
- cinnamon toast (whole wheat toast with a bit of butter, cinnamon and brown sugar)
- veggies with dip
- juice fizz - fruit juice and ginger ale
- jiffy pizza - use pita bread, bagel or English muffin, spread with spaghetti or pizza sauce, cheese, leftover chopped meat and veggies and microwave or broil.



Snacking on the Run

To prevent unhealthy snacking on the road, pre-prepare some of the following healthy snacks to take along:

- snack size container of yogurt, puddings, fruit
- milk, milk shakes, fruit or vegetable juice in a drinking box
- fruit
- vegetable sticks
- celery filled with cream cheese or peanut butter
- crackers with peanut butter, hummus, salsa, cheese
- ready-to-eat cereal or granola
- whole grain muffins
- 1/2 sandwich
- cold pizza
- pancakes rolled up with peanut butter and jam
- popcorn, pretzels or nuts

Snacks to avoid include:

- candy bars
- candy
- chewy granola bars
- soft drinks
- potato chips
- corn chips

These snacks contain a lot of sugar and do not provide much nutritional value.

The 1-2-3 of Healthy Snacking

1. Choose nutritious snacks
2. Limit the number of snacks you consume
3. Choose a variety of snacks.





Dieting versus Healthy Choices

Roll Call: have you or any of your friends ever followed a diet?

Answer to Roll Call:

ACTIVITIES

1. Take a chili recipe or another favourite recipe and use some of the substitutions suggested in the recipe section to make it healthier.
2. Have a speaker from or go to a YMCA program on weight management for youth.
3. Have members bring in their favourite magazine ads. Have them analyze them in terms of body image and the message the ad is sending. Ask them how they feel about themselves after looking at magazine images.
4. Have a dietitian speak on eating disorders
5. View the movie, "Super Size Me".

ACTIVITIES: In Depth

1. Have members research a popular fad diet (such as 'The Zone', Atkins, South Beach) and tell the group about it - including the pros and cons of these diets.

Resources:

- *The Lifestyle Journey CD*. Ideas For People Inc. Available through www.ideasforpeople.com
- www.dietitians.ca.



Many teens are taken in by advertising and think that thin is 'cool'. They want to be thinner and then hope to be better accepted by their peers. Diets are not recommended for youth 18 years old or younger as the demands of growth and development must be met. Some diets are very dangerous and can cause metabolic changes leading to serious illnesses.

Fortunately, most people do not stay on the diet very long and / or do not stick to it very well which prevents this from happening too often. If you do not eat enough you tend to become irritable and grumpy as you are hungry and are not getting enough food to meet your nutritional demands. It can affect how you feel and think. Dieting can also lower the immune response to illnesses, so the person can pick up every cold or flu bug going around.

What can you do if you think you are a few pounds overweight??

1. Be around people that accept you for who you are. Everyone is an individual with his / her own body shape, size and appearance
2. Look at what you are eating: make sure you are eating food from the 4 food groups, but look at the quantity - avoid second helpings, eat from a smaller plate, start your meal by drinking a glass of water (it will fill you), eat slowly, and stop eating when you feel full.
3. Write down everything you eat and drink for a day or two - maybe you are eating more or less than you think
4. Do not feel "bad or "guilty" about eating food. Food is to be enjoyed - food is one of the first pleasures an infant knows. It should remain pleasurable.
5. Accept yourself as you are - decide what is realistic and healthy for you.
6. Try to become more physically active; this will help firm your body and you will feel better about yourself
7. Likewise, if you are underweight, give yourself some time for your body to fill out
8. Look after your body by healthy eating and daily exercise.
9. Walk or bike to school
10. Go for a walk every day when you get home from school - it will clear your mind and help you feel better about yourself
11. Walk upstairs instead of taking an elevator
12. Park a little farther away from the mall - and walk!
13. Rewards and goals are good!





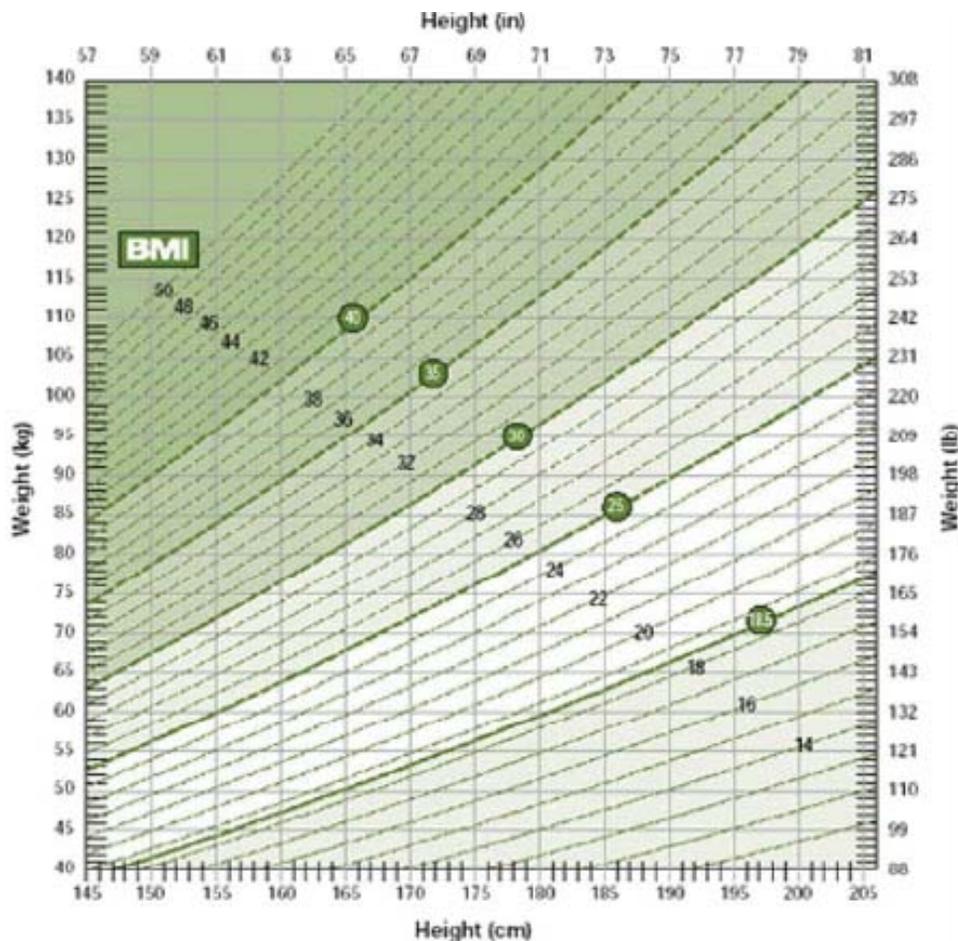
Growth / Weight Assessment

For children 1 - 18 years of age, height and weight charts are made by professionals determining by percentile where a child fits in the growth curve. These measurements are taken and interpreted by professions.

After 18 years of age, the Body Mass Index (BMI) is used.

According to Health Canada, the BMI is a valid measurement of weight in relation to health. It is not recommended for use as the sole measurement of either body composition or level of fitness and should be used in conjunction with the Waist Circumference Calculator.

Although the BMI is useful for creating guidelines for healthy adults (ages 18 and older), it does not apply to infant children, adolescents, pregnant or breast-feeding women.



To estimate BMI, locate the point on the chart where height and weight intersect. Read the number on the dashed line closest to this point. For example, if you weight 69 kg and are 173 cm tall, you have a BMI of approximately 23, which is in zone B.

(Chart from

http://www.hc-sc.gc.ca/fn-an/nutrition/weights-poids/guide-ld-adult/bmi_chart_java-graph_imc_java_e.html)



There are many sites on the Internet that will calculate your BMI, both for adults and children. However, BMI results should be formally calculated by a professional, so if you are concerned about your BMI, you should talk to your doctor.

BMI Internet Sites:

http://www.hc-sc.gc.ca/fn-an/nutrition/weights-poids/guide-ld-adult/bmi_chart_java-graph_imc_java_e.html (If the link doesn't work, go to the Health Canada main page, click on Food and Nutrition, then to Nutrition and Healthy Eating, then to Healthy Weights, and finally to Canadian Guidelines for Body Weight Classification in Adults).

<http://www.cdc.gov/nccdphp/dnpa/bmi/>

You can also calculate it manually by using the following formula:

BMI = weight (kg) / height (m²).

There is a classification of Health Risk associated with BMI.

Classification	BMI	Risk of Developing Health Problems
Underweight	< 18.5	Increased
Normal Weight	18.5 - 24.9	Least
Overweight	25.0 - 29.9	Increased
Obese Class I	30.0 - 34.9	High
Obese Class II	35.0 - 39.9	Very High
Obese Class III	> 40.0	Extremely High

Source: Health Canada. Canadian Guidelines for Body Weight Classification in Adults, Ottawa: Minister of Public Works and Government Services Canada, 2003.



Food wise, we can make some healthier choices. Instead of high fat, high sugar food, make substitutions:

- Plain hamburger, not cheeseburger
- Grilled chicken or fish sandwiches - not fried chicken or fish sandwiches
- Vegetable pizza, instead of meat pizza with double cheeseburger topping
- Plain baked potato not fries or potato skins
- Water based or broth based soup, instead of cream soup
- Ask for low fat / low calorie dressing on the side for salads - this way, you can control the quantity and calories!
- Plain ice cream or low-fat frozen yogurt or fruit sorbet not pies, cakes, cookies, or donuts
- Unsweetened fruit juice, low fat milk, or water - not soda pop, shakes, frosty drinks
- Don't super size
- Switch to a lower fat milk (from homo 3%MF to 1% or skim)
- Omit butter from your sandwich
- Do not add salt or sugar to a food until you have tasted it
- Eat slowly and **enjoy your food**





Tips for Making Healthy Choices

Want to eat well, but find it a challenge when you have to dine and dash?

Luckily, many “fast food” restaurants are making it easier with healthier menu options. These tips will help you choose wisely!

Downsize it

Super-sized portions usually cost only a little extra, but can pack a whopping nutritional blow. Research shows the larger the serving in front of us, the more we tend to eat.

Keep in mind: double the portion = double the calories.

Compare the Calories, Fat and Sugar:	Total Calories	Fat (grams)	Sugar (grams)
Double patty hamburger with dressing or mayonnaise + large fries + large soft drink	1570	66	91
Double patty hamburger + large fries + large soft drink	1200	40	90
Single patty hamburger + small fries + small soft drink	620	18	47
Single patty hamburger + side salad* + 2 % milk	435	16	23

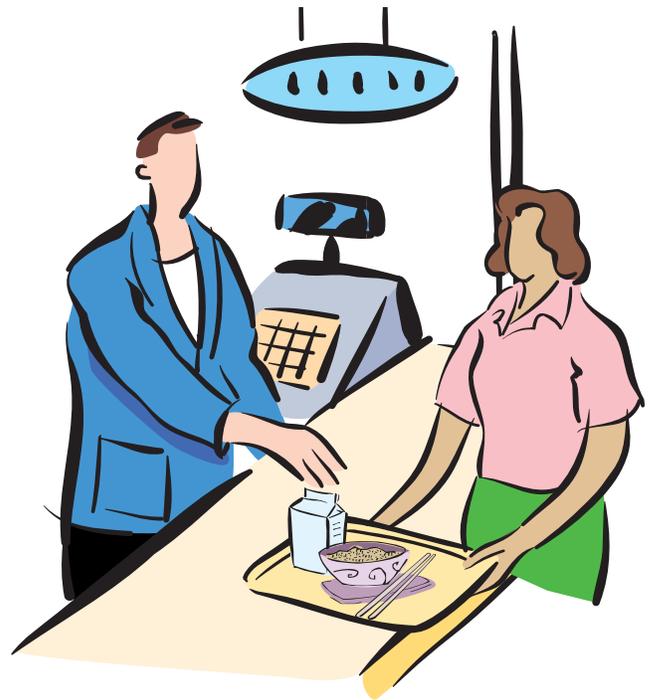
* with low fat dressing

Tip: If you just can't bear to pass on a deal, consider splitting a large portion with someone else. Smaller serving sizes are especially important for young children.

Watch the “extras”

Those little “extras” like salad dressings, sandwich sauces, mayo, spreads and gravy can add a lot of fat and calories to your meal. Choose:

- veggies as a tasty garnish for sandwiches
- lower-fat condiments like ketchup, mustards and relish
- lower-fat salad dressings and use only a small amount



Design it yourself

Looking for more ways to keep the calories and fat in check? Want to boost your nutrient and fibre intake? Made-to-order options are a great solution. When you order a sandwich, burger, wrap, salad or pizza, opt for:

- whole grain breads, buns, wraps and pizza crusts
- plenty of colourful vegetables and fruit
- leaner meats and lower-fat milk products
- lower-fat sauces, spreads and salad dressings

Be balanced

Healthy eating is a matter of balancing your food choices over time. So if you overindulge at one meal, try to make healthier choices at your next meals.

Tip: Change your order to add some variety. Take your taste buds on a global adventure with sushi, shwarma or stir-fry.





Making Healthy Choices

Go for the grill

Grilled foods are usually much lower in fat and calories than deep fried foods. Go for grilled meats, poultry, fish and veggies rather than deep fried. For example, a battered and deep fried chicken sandwich may have more than twice as much fat as a grilled chicken sandwich.

	Fat (grams)
Deep fried chicken sandwich	24
Grilled chicken sandwich	11

Salad savvy

Not all salads are created equal. The dressings can make them extra high in fat and calories. For example, a chicken Caesar salad with dressing can have about as many calories and as much fat as a deep fried chicken sandwich.

Drink smart

Large servings of pop and other sweetened beverages provide empty calories. A large pop typically contains about a third of a cup (85 mL) of sugar. Shakes can be very high in fat and calories too. Quench your thirst with water, milk, 100% fruit juices, fruit smoothies and vegetable cocktails.

Tip: Add milk to tea and coffee instead of cream to save calories and fat. Keep in mind that flavoured syrups and whipped cream added to some coffees and teas may net you as much as 200 to 300 calories or more.

Dietitians provide food and nutrition information you can trust. Find a dietitian in your area at www.dietitians.ca/find or call 1-888-901-7776.

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Breakfast basics

Make wise breakfast choices to give you the energy and nutrients you need for a great start to your day. Choose at least 3 of the 4 food groups from Eating Well with Canada's Food Guide : www.healthcanada.gc.ca/foodguide

Tip: Try to limit higher fat options like doughnuts, pastries, muffins, croissants, bacon, sausages and fried hash browns.

Fill up on fibre

Make fibre-rich choices more often: whole grain breads; vegetables and fruit; beans, lentils and chickpeas (in chili, salads, and falafel); nuts and seeds.

Desserts

Think fresh and light when it comes to dessert. Fresh fruit, frozen yogurts, ice milk and fruit sherbets are nutritious alternatives to baked or fried goods and ice creams. And be portion wise, some large cookies may add as much as 400 or more calories.

Get the facts

Ask for nutrition facts at the restaurant or visit "Food & Fitness Facts" at www.crfa.ca/foodandfitnessfacts/nutritioninfo. Compare the calories, fat, sugar, fibre and key nutrients – you may be surprised!

This Factsheet distributed compliments of:



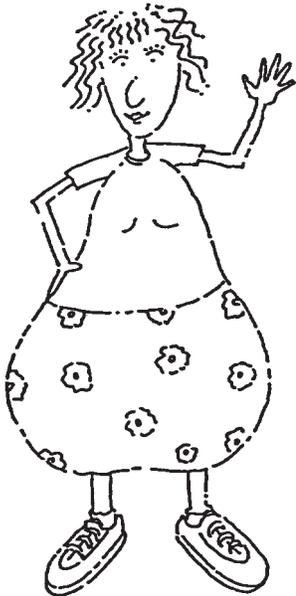


Are You an Apple or a Pear?

Most people believe that excess weight is bad for your health. But research has shown that it is where excess fat is stored on the body that is the key link to the risk of future health problems.

Apple-shaped people store body fat around the abdomen and chest, surrounding internal organs, such as the heart.

Pear-shaped people store fat on the hips and thighs, just below the surface of the skin.



The good news for Pears is that the excess fat they store in the lower body is not necessarily a risk to their health. Apples, however, have a higher risk for heart disease, stroke, diabetes, high blood pressure and gall bladder disease. Even when Apples and Pears have similar body weights, these diseases progress faster and more seriously in Apples than in Pears.

Does your body shape change when you lose weight?

It depends on whether you are an Apple or a Pear. When Apples lose weight, they do reduce the fat in the upper body, so they look different (and reduce their risk of disease). Pears also tend to lose fat in the upper body, so even when they lose weight, their overall shape does not change much. In short, a Pear will always be a Pear.



What's your waist-hip ratio (WHR)?

To decide if you are an Apple or a Pear, try this simple waist-to-hip measurement.

- 1 Measure your waist at the smallest part.
Waist = _____ inches.
- 2 Measure your hips at their widest.
Hips = _____ inches.
- 3 Divide your waist measurement by your hip measurement. WHR = _____

- 4 Assess your health risk

Lower Risk

- WHR less than 0.8 for women
- WHR less than 1.0 for men

Higher Risk

- WHR greater than 0.8 for women
- WHR greater than 1.0 for men

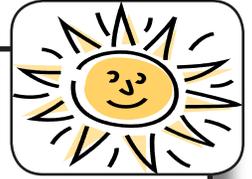
The Waist Hip Ratio (WHR) is a measure of trunk fatness. It is a good indicator of weight as a risk factor for diseases such as heart disease. The Body Mass Index (BMI) is another measure for assessing overall weight and risk to health. The BMI measures weight in relation to height. If you are concerned about your WHR, contact your local public health department to find out more about healthy weights and the BMI.

The bottom line

For most people, a few extra pounds is not harmful to their health. If you are an Apple with a higher WHR, consider talking to a dietitian about making changes to your eating patterns and talk to a fitness instructor about increasing your level of physical activity. If you are a Pear with a healthy weight, focus on eating well, being active and feeling good about yourself. Respecting your body the way it is, is a healthier alternative than dieting.

Enjoy eating well, being active and feeling good about yourself. That's





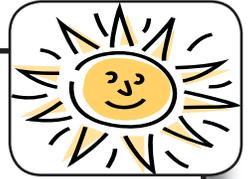
Feeling Good About Yourself

Roll Call: What are your best attributes (good things about yourself)?

Answer to Roll Call:

ACTIVITIES

1. Start the activity by suggesting that often people do not feel proud and confident about how they look. Some people do not feel good about their bodies.
 - Have the members look through different magazines and make a collage of pictures of men and women on different sheets to show what the current ideal is for both men and women. Use phrases or words to describe an attractive member of your own sex.
 - Make another collage of pictures showing parts of the body that people of that gender often feel dissatisfied with. E.g. Girls often do not like their hair colour, shape of their nose, waist size, etc. Boys would like to be taller, different colour hair, etc.
 - When collages are completed put them on the wall side by side - and compare what they think they want changed and what the magazine collage shows.
 - Have the members look at the pictures, and summarize what they see.
2. Possible related discussion questions:
 - Discuss with the members whether they think people are generally happy with their bodies - where do our ideas of acceptable or desirable come from?
 - Discuss the role that media and advertising has on body image.
 - Do peers affect how you feel about yourself? How do you know what their opinions are?
 - Do media images affect how we feel about ourselves?
 - What things can we not change? If we cannot change these factors, does that make us unattractive, in our own eyes, in others eyes?
 - What makes people attractive to us? (Humour, intelligence, friendliness, kindness, tact, consideration, patience, determination, compassion, ability to love and to be loved, ability to be a good student or a good parent, employee, or employer, friend or neighbour).
3. Arrange for guest speakers on teen issues (Public Health Unit, YMCA, Youth church leader, Girl Guide leader, teen social worker, Guidance counselors - speaking on teen body image).
4. Hold a debate on "positive" versus "negative" reinforcement.
5. Brainstorm on ways to improve body image.
6. Hold a discussion on the following book (have members read it first): All Made Up: A Girl's Guide to Seeing Through Celebrity Hype and Celebrating Real Beauty. Audrey Brashich. \$9.95

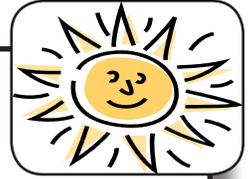


ACTIVITIES: In Depth

1. Have member identify some of the community's major teen problems or concerns. Suggest ways to improve the situation.
2. Have a group of members prepare a skit portraying any teen concerns. Present to the group, school, or local council with any ideas to change the situation

Resources:

- www.youthcentral.vic.gov.au.
- www.hc-sc.gc.ca
- www.canadian-health-network.ca
- www.advocatesforyouth.org.
- <http://parentingteens.about.com>.
- www.dietitians.ca.



What is Body Image??

Body Image is a mental picture that we have of ourselves influenced by our self-esteem and self-worth. It is how you feel about your body, and what you think other people think about you. Body image is always changing. It can change with your moods, your physical environment, and your experiences. It is formed from all your experiences, and by everyone around you: parents, role models, media, and peers. It can also include the expectations you have about how you think you should look. Body image is what you see when you look in the mirror, and also what you feel when you think about your body. If you feel confident and comfortable in your body, then you have a positive body image.

Body Image is affected by:

- a changing sense of who you are, where you fit in and what you want
- dealing with changing body size and shape
- advertisements, magazines and films that show you what you should think and how you should look
- your own sense of what is important

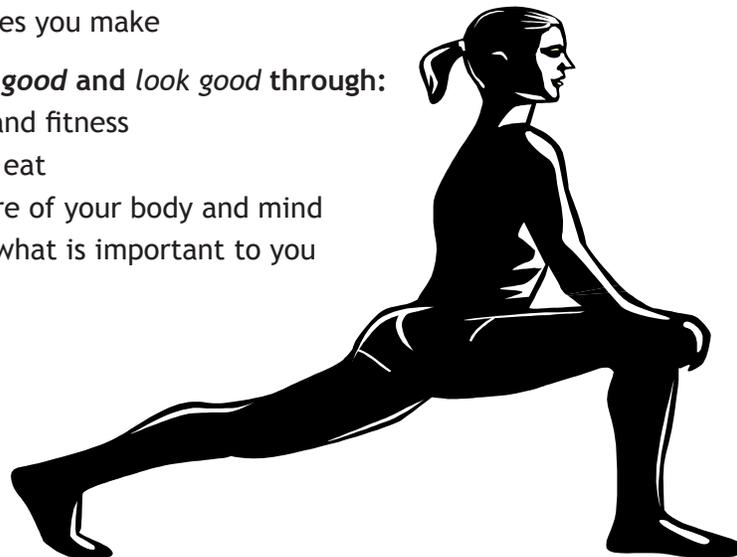
Can we change any things about ourselves to meet our expectations? What are they and how (what about, more exercise and healthy eating)? Some people become so preoccupied with how they should or want to look that they loose track of what is really important. There is so much more to life than just appearances! It is important to care about how you look and trying to keep your body in shape - this is a positive thing but does not have to become obsessive. **Keep perspective!**

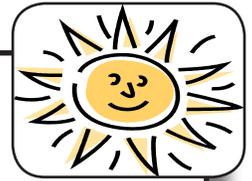
Having fun through friendships and relationships often depends on:

- The way you feel
- The things you do + your attitudes
- Your expectations
- The choices you make

You can *feel good* and *look good* through:

- Exercise and fitness
- What you eat
- Taking care of your body and mind
- Deciding what is important to you





5 Ways to Keep a Healthy Body Image:

1. Be realistic. People come in all shapes and sizes -just look around you when you are at the mall.
2. Separate myth from fact. Check out reliable books, fact sheets, and information brochures. Do not always believe the media and tabloids - they pay and are paid to create certain images.
3. Discuss your thoughts and feelings with others: friends, family, and other people you know you can trust.
4. Remember that feelings change every day for everyone. Some days you feel better than on other days.
5. If you constantly feel low, you should speak out and get support. Talk with a school counselor, your family doctor, or guidance teacher.

Sometimes our body image reflects things that are bothering us: things at home, exams, stress, and/or other crisis situations. Turning to other things like drugs, dieting, overeating, constant exercise, and/or steroid use does not solve the underlying problem and does create additional problems. It is best talk about the situation with someone; take action for you or for a friend.

There are lots of support groups (such as the Kids Help Phone - 1-800-668-6868 - <http://www.kidshelpphone.ca>), trained professionals and information sources that exist - use them!



Fact Sheets

Healthy Images - A Positive way to look at yourself

January 01, 1997

- Do you weigh your self-esteem on the bathroom scales?
- Do you "feel fat" some days?
- Do you compare your body to other people's?

If you answered YES to these questions you are not alone, many people, especially women, are dissatisfied with their bodies.

Body image is the mental picture you have of your body plus the feelings and judgements you have about this picture. This picture is often very inaccurate and has little to do with how you actually look or how other People see you. With positive thoughts and lifestyle choices you can change your body image and how others respond to you.

Ten Steps For Building a Positive Body Image

1) ACCEPT YOURSELF

Feeling good about yourself starts with accepting who you are and how you look. After all, healthy bodies come in all shapes and sizes. For some people, it may mean giving up the fantasy that being slimmer would lead to a happier life.

Focus on your good qualities and pass over any negatives. Feel what it's like to love your body unconditionally. Treat your body with a bubble bath, a massage, or a manicure.

2) STEP OFF THE DIET ROLLER COASTER Ñ FOR GOOD!

Dieting brings temporary weight loss, but 1/3 to 2/3 of the weight is usually gained back in the first year. Almost all the weight is gained back within five years and sometimes much more.

The cycle of losing and gaining can be harmful to your health and it can lead to frustration, anger and an even poorer body image. So, stop dieting. Instead, eat well and enjoy being active.

3) ENJOY EATING WELL

Eat for energy and for pleasure. Follow Canada's Food Guide to Healthy Eating. Choose more grains, pasta, legumes, fruits and vegetables. Choose lower-fat dairy products, leaner meats and foods prepared with little or no fat and see how good they taste.

Ask yourself if you are eating because of hunger or for some other reason. Learn to trust your body to tell you when to eat and when to stop.

Don't worry about having a chocolate once in a while. The trick is to only "indulge" once in a while! Think of balancing what you eat over the day or the week and remember that moderation is the key.

4) ENJOY BEING ACTIVE

How about a noon-time walk, a family hike or a swim with friends? Physical activity lets you enjoy the outdoors and helps you deal with stress while making you feel more energetic. All this helps you feel good about yourself.

5) CREATE A MENTAL SPA

Right now, go ahead: breathe deeply and relax. Think of a place where you feel peaceful, relaxed and contented. Doesn't it feel good to slow down and let go of your responsibilities for a while? Experience the magic when you quiet your mind and let yourself enjoy the stillness.

6) MAKE YOUR IMAGINATION WORK FOR YOU

Everyone has 5000 thoughts every hour! And you can choose thoughts that encourage you, or ones that drag you down. Use your imagination to practice attitudes you want in your life. Act as if you like your body and feel what that's like.

7) LOOK YOUR BEST ALWAYS

How you keep yourself shows how you feel about yourself. Wear clothes that fit and give away the ones you never wear. For fun, try a new hair style, tie on a scarf or indulge in a new pair of earrings. And remember to smile. It gives you and everyone you meet a real boost.

8) GET SUPPORT FROM FAMILY AND FRIENDS

Ask for help when you need it. Organize a group of friends or find a buddy and help each other meet your goal to be the best you can be. Think of ways to create lots of fun and laughter for each other.

9) BE THANKFUL

To take your mind off negative thoughts, make a list of 10 things that give you pleasure and keep this where you can see it. Make another list of the beautiful aspects of yourself Ñ all the things your friends have complimented you on. This helps you realize how beautiful you really are.

10) EXPRESS YOUR CREATIVE SELF

Do things for fun -- instead of competing or trying to be perfect! Have fun expressing your personality through crafts, sewing, cooking, decorating, gardening or anything else that helps you feel happy. Know that you are unique and express it!

SUMMARY -- ONE POSITIVE STEP AT A TIME

Developing a positive body image is a gradual process. Relax, take your time, and congratulate yourself every step along the way as you learn to accept your body. And remember ... enjoy eating well, being active and feeling good about yourself.

The following registered dietitians contributed to the preparation of this factsheet:

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Silvana Luciani

Tips for Kids on Eating Well and Feeling Good About Yourself

It is no fun for you to worry all of the time about how much you weigh, how much you eat, how muscular you are, or whether you are thin. Here are some things you can do to:

- Be healthy and fit!
- Have fun!
- Feel good about how you look!
- Eat when you are hungry. Stop eating when you are full.
- All foods can be part of healthy eating. There are no "good" or "bad" foods, so try to eat lots of different foods, including fruits, vegetables, and even sweets sometimes.
- Try to eat lots of different types of snacks, too: sometimes raisins might be good, sometimes cheese, sometimes a cookie, sometimes carrot sticks or celery dipped in peanut butter.
- If you are sad or mad or have nothing to do—and you are not really hungry—find something to do other than eating. Often, talking with a friend or parent or teacher is helpful.
- Remember: kids and adults who exercise and stay active are healthier and better able to do what they want to do, no matter what they weigh or how they look.
- Try to find a sport (like basketball or soccer) or an activity (like jumping rope or dancing or karate or riding your bike) that you like and do it! Join a team, join the YMCA, join in with a friend or practice by yourself—just do it!
- Good health, feeling good about yourself, and having fun go hand-in-hand. Try out different hobbies, like drawing, reading, playing music, or making things. See what you're good at and enjoy these things.
- Remind yourself that healthy bodies and happy people come in all shapes and sizes, and that no one body shape or body size is a healthy one or the right one for every body.
- Some people believe that fat people are bad, sick, and out-of-control, while thin people are good, healthy, and in-control. This is not true and it is unfair and hurtful.
- Do not tease people about being too fat, too thin, too short, or too tall. And, don't laugh at other people's jokes about fat (or thin) people or short (or tall) people. Teasing is unfair and it hurts.
- If you hear someone (your mom or dad, a sister or a friend) say they are "too fat and need to go on a diet",
 - TELL THEM—You think they look just fine the way they are.
 - TELL THEM—Please don't, because dieting to lose weight is not healthy—and no fun—for kids or adults.
 - TELL THEM—Don't diet! Eat a variety of foods and get some exercise.
 - TELL THEM—Remember, being "thinner" is not the same thing at all as being healthier and happier.
- Appreciate yourself for all you are—everyone should respect themselves, like themselves, enjoy playing and being active, and eat a variety of healthy foods.



Be Body Positive

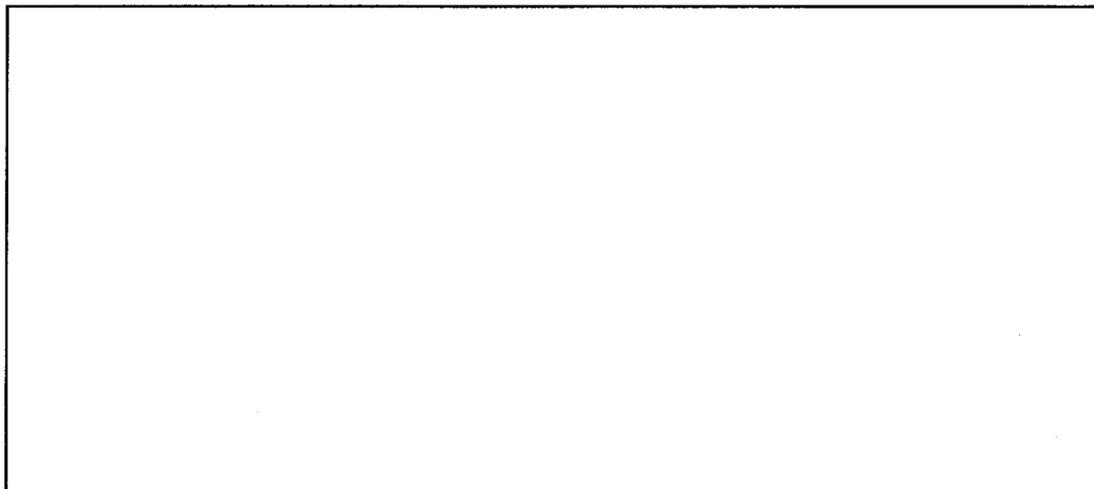
It is no fun for you to worry all of the time about how much you weigh, how much you eat, how muscular you are, or whether you are thin. Here are some things you can do to:

1. In order to have a positive body image, we need to remind ourselves of the things our bodies can do well for us. List three things your body can do well for you (e.g., chores, sports, special talents).

i _____
ii _____
iii _____

2. If you had a friend who was always making negative comments about their body, what advice would you give to help them develop a more positive body image? Use the "Tips for Kids on Eating Well and Feeling Good About Yourself".

3. You have been hired by an advertising company to create a poster with a catchy slogan that will encourage children and teens to develop a positive body image. Draw a sketch of your poster below.



Self-Esteem & Body Image Definitions

Self-esteem is . . .

- What you think, feel and believe about all parts of yourself.
- How you feel about your abilities, talents, and personality.

Negative self-esteem is . . .

- You do not feel talented, or you believe that your talents are not important.
- You believe that you need to change a lot about yourself.
- You think that people do not like you.

Positive self-esteem is . . .

- You feel good about yourself.
- You recognize that you have unique talents and abilities.
- You think that you are a likeable person.

Body image is . . .

- What you think and believe about the way you look.
- How you feel about your body, including your height, shape and weight.
- How you see yourself when you look in the mirror or when you picture yourself in your mind.
- How you sense your body as you move.
- How you feel in your body, not just about your body.

Negative body image is . . .

- You feel ashamed, self-conscious, and anxious about your body.
- You feel uncomfortable and awkward in your body.
- You think parts of your body are unlike what they really are.

Positive body image is . . .

- You celebrate and appreciate your natural body shape.
- You understand that a person's physical appearance says very little about their character and value as a person.
- You feel proud and accepting of your unique body.
- You refuse to spend an unreasonable amount of time worrying about food, weight, and calories.
- You feel comfortable and confident in your body.
- You have a clear, true perception of your shape—you see the various parts of your body as they really are.

We all may have our days when we feel awkward or uncomfortable in our bodies, but the key to developing positive body image is to recognize and respect our natural shape and learn to overpower those negative thoughts and feelings with positive, affirming, and accepting ones. And we may not like our bodies all the time, and that's okay...it's normal.

Accept yourself — Accept your body.

Celebrate yourself — Celebrate your body.





What I Like About Me*

Liking yourself and your body is an important part of VITALITY and can help you reach and stay at a healthy weight.

Try saying positive things to yourself every day. For example:

- I accept myself and others.
- I am proud of the things I've done.
- I have a sense of humour.
- I enjoy my work.
- I am aware of my strengths and weaknesses
- I have a good outlook on life.
- I want to keep growing and changing to feel better about myself.
- I don't let fear keep me from doing all I want to do.
- I am realistic about the goals that I set.
- I know what is important for me.
- I look forward to the future.



Add a few more of your own:

○ _____

○ _____

○ _____

○ _____

○ _____

○ _____

* Adapted from the Ontario Ministry of Health's "I Rate +" program, in The Healthy Weight Program, Nutrition Services, Halton Regional Health Department, 1994.

Enjoy eating well, being active and feeling good about yourself. That's





Salad: A Smorgasbord of Science

Roll Call: What is your favourite salad?

Answer to Roll Call:

ACTIVITIES:

1. Have members list the foods that can be used in a salad.
2. Have members circle the foods they would like to try on the Glorious Foods activity worksheet included.
3. Have members list as a group or individually all the types of lettuce they know. Note: there are 5 basic types of lettuce:
 - butter head - Boston, bibb
 - crisphead - iceberg
 - cos - romaine
 - stem or chinese - asparagus lettuce
 - loose-leaf
4. Prepare a collage or have the members prepare a collage page on the different kinds of lettuce.
5. Have the members identify different kinds of lettuce.
6. Play Leafy greens bingo - activity sheet attached.
7. Complete a crossword puzzle - activity sheet attached.
8. Have members learn how to determine pH. Use pH paper or test kits that can be obtained from an aquarium supplier, or pool dealer, or from a fertilizer company. pH is a measure of acidity from 1 to 14, 1 being very acidic, 7 being neutral, and 14 being very alkaline. Most vegetables grow best at pH of 6.0-6.8. Test pH by putting 125mL (1/2 cup) distilled water into a container. Dip the pH test strip into the water and note the colour change. Lower the pH by adding vinegar or lemon juice, and raise the pH by adding baking soda. Test with pH paper to note the differences.
9. Have members make a hydroponic garden or floating farm - see pages 112-114
10. Have members list different kinds of tomatoes.
11. Have members brainstorm the different uses of tomatoes (sauce, ketchup, salads, juice, bruschetta, etc).
12. Have members prepare a favourite recipe using tomatoes.
13. Have members list what things can be added to salads. Perhaps make a 3 columned list: greens, other, dressing and then make different combinations.
14. Have a meal made up entirely of different salads!
15. Make a collection of favourite salad recipes. Organize these in a creative way - in a scrapbook, Internet blog, or on decorated recipe cards.



ACTIVITIES: In Depth

1. Have members prepare vegetable puppets, and create a skit to the group, or school class
2. Visit http://www.omafra.gov.on.ca/english/crops/hort/greensalad_crops.html to learn more about salad greens!
3. Invite a speaker from the Ontario Ministry of Agriculture to give a presentation on salad vegetables - you can find a contact list at <http://www.omafra.gov.on.ca/english/crops/resource/stafcrop.htm>, under 'Horticulture Crops'.
4. Visit a commercial grower of tomatoes, cucumbers, peppers, cabbage, etc.
5. Visit a hydroponic growing operation.
6. Visit the produce section of a grocery store. Discuss where fruits and vegetables come from. Then, visit a local farmer's market and do the same. Discuss the pros and cons of buying local produce.
7. Have members compare the salad dressing recipes on page 116, noting differences and reasons for the alterations.
8. Try a warm salad, pasta salad or hot potato salad - for different salad recipes, visit <http://www.epicurious.com/recipes/find/results?search=salads>, <http://www.omafra.gov.on.ca/english/food/domestic/ontario-produce/ont-produce-main.html>, or you can visit http://www.foodtv.ca/recipes/recipe_search.aspx - under 'type of dish', enter salads.

Resources:

- www.leafy-greens.org
- www.kidsgardening.com/HYDROPONICSGUIDE/hydro.asp
- www.ontariogreenhouse.com
- www.urbanext.uiuc.edu/veggies/lettuce1.html
- www.fsa.usda.gov/fsakids/agventure./agventure.html - Great interactive game site
- *Salad is a smorgasbord of science*. Agriculture and Agri-Food Canada. AAFC No 10050B
- The Power of Produce. 4-H 19 10 95 ME



A cool, refreshing salad on a hot summer day is perfect!

Salads can contain an unlimited variety of foods, and food combinations.

Salads can be a bit deceiving as they are not always as low fat and healthy as we may think. In fact, Caesar salad is quite high in fat - look at the recipe for Caesar salad and determine the fat sources - can these be changed to make the salad more healthy?

Lettuce and/or cabbage probably form the basis of most salads. Lettuce is a source of vitamin A & C. Lettuce is very perishable and was not always available year round as it is now. Even today, the cost in some seasons is high. Scientists in British Columbia have found that lettuce kept in a bath of mostly water at a certain temperature helps keep lettuce crisper for longer.

Cabbage was used for salads in the past, as it could be stored for winter use, and keeps for a longer time compared to lettuce. Lettuce belongs to the Lactuca Sativa family. Vegetables like cabbage, kale, spinach, broccoli, brussels sprouts, collard greens, and spring greens belong to the Cruciferous family.

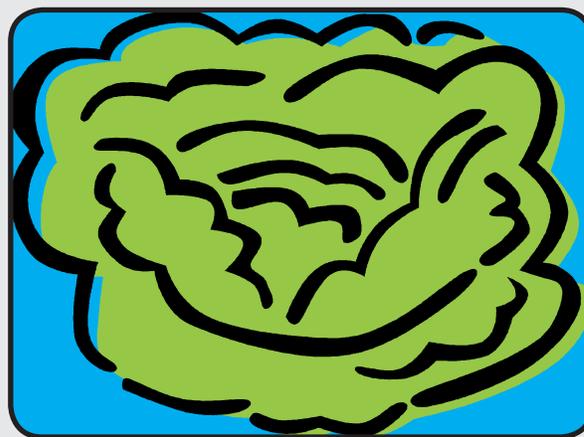
Lettuce is a hardy, cool-weather vegetable that likes 60-70F weather. If the temperature is too high, the leaves will be growth stunted, the leaves may taste bitter, and the seedstalk will grow quickly.

To prepare a lettuce salad:

- Wash the lettuce just before serving. If lettuce is slightly wilted, placing it in ice-cold water for a few minutes will revive it. Tear the lettuce leaves rather than cutting them, as cutting releases ascorbic acid oxidase, which destroys vitamin C. Cut leaves, will also discolour quickly.
- Dry the leaves, as salad dressing will stick to dry leaves better. Salad dressing on leaves will cause them to wilt.
- Do not store with apples, pears or bananas as they release ethylene gas that will speed up lettuce ripening and decay forming brown spots. Discard any lettuce that is slimy (residue from bacterial decomposition) or black spots (mold).

Salad Trivia

- The largest head of lettuce ever grown weighed 11 kg (25lb), and was produced in England in 1974 - Salad Bowl Cultivar
- 95% of head lettuce in U.S.A. Is grown in California or Arizona - and the U.S. exported \$110 million of lettuce in 2001, with 85% going to Canada.
- Lettuce can be grown in your garden, imported in cold seasons from other countries or more recently grown hydroponically (in water).





Hydroponics

Plants need 16 different essential elements for optimal growth.

Macronutrients are ordinarily found in the soil and are needed in large amounts by the plant. These include:

- nitrogen (N) for leaf development
- phosphorus (P) for root growth
- potassium (K) to help resist disease
- calcium (Ca) for new root and shoot growth
- magnesium (Mg) for leaf colour and it helps absorb sunlight
- and sulfur (S) for leaf colour.

Trace elements are also needed but in much smaller amounts: **manganese, iron, copper,** and others.

In hydroponics a "super nutrient soup" is prepared to supply the plant with all the nutrients it needs in water. Nutrients are purchased as a hydroponic nutrient solution from fertilizer dealers. This solution may have to be replaced as the plant uses up different nutrients, as water evaporates and as plant leaves transpire (lose water from the leaves).

Commercial growers have special equipment to measure nutrient concentration and adjust the nutrient solution as needed. For our use, replacing nutrient solution every 10-21 days will be sufficient. If the water evaporates you may want to add more water so the concentration of nutrients does not become too high. The acidity of the nutrient soup must be monitored. Commercial growers use a pH meter to determine the pH.

Growing Hydroponically

Plants in a hydroponic environment need to have some stability so that the plant will stand upwards and not drown. This is accomplished by perlite, vermiculite, gravel, clean sand and rockwool (which is very porous and holds large amounts of water and air). These materials allow water and air to circulate through their fibres.

Make A Hydroponic Garden or Floating Farm -

from <http://www.kidsgardening.com/HYDROPONICSGUIDE/hydro5-2.asp>

There are different ways to set this up: the soda bottle system, the basic wick system, and the milk carton and rockwool system. To aerate, you can use simple aeration or soda bottle aeration.

Soda Bottle System

Cut the top 1/3 to 1/2 off the clear plastic soda bottle. Drill a 1/4 inch hole in the cap. Cut a piece of dress interfacing 1 by 10 inches which will draw the nutrient / water solution up from the bottom. Invert the top section of the bottle and place it in the bottom section. Feed the wick from the bottom reservoir (bottom part of the bottle), through the bottle cap and into the inverted top of the bottle. Fill in around the wick with perlite. When the seed has been sprouted (make a raft of popsicle sticks, covered with a bit of soil and 4 seeds, floated in water) replant in rockwool, and top off with perlite or medium of your choice.

Change the nutrients every 10 days or so.



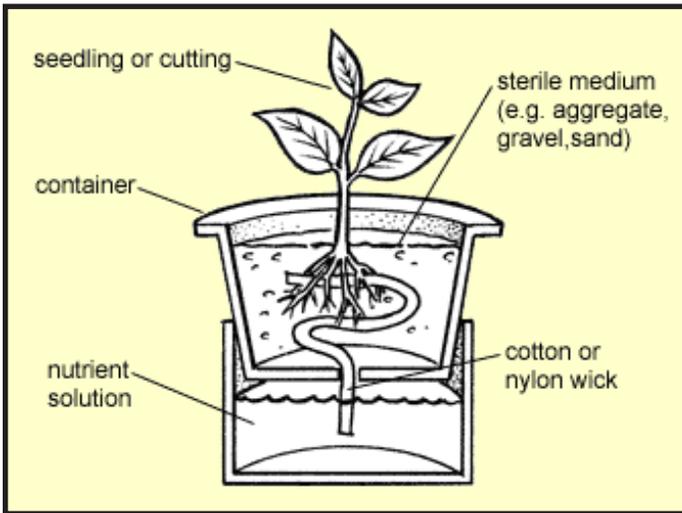


Diagrams:

Basic Wick System

Growing Tips

Place one end of the wick an inch or two into the container so it contacts the plant roots, then thread the wick down through the drainage hole into another container holding nutrient solution.

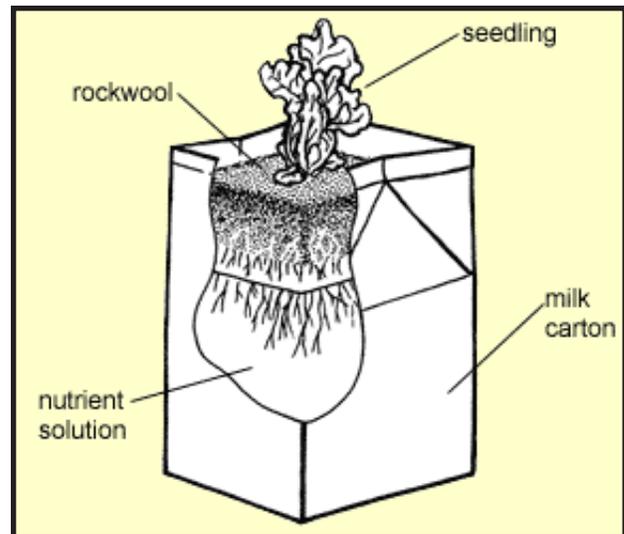


Fill the top container with the growing medium.

Keep the nutrient solution level constant by adding water as it evaporates and is transpired, and change the solution every week or two. Try to keep the nutrient solution pH between 5.8 and 6.5 and the temperature at about 70 F.

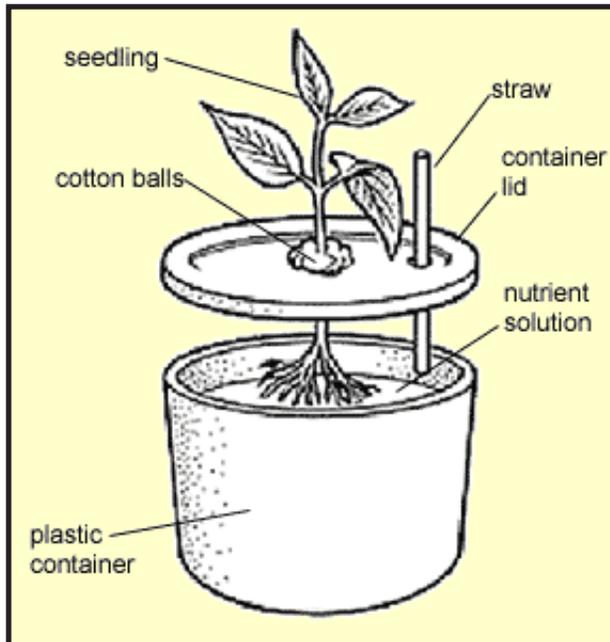
Milk Carton and Rockwool System

Plant seeds 1/4 inch deep in rockwool that has been soaked in a dilute nutrient solution and cut to fit into a milk carton. Place rockwool in a tray of water until seeds germinate. Try to keep the nutrient solution PH between 5.8 and 6.5 and the temperature at 70F. Once seeds have sprouted, move the rockwool with the plant to an empty carton every day, pouring new solution over the rockwool into the new container.





Simple Straw Aeration



Use a utility knife and cut an X shape into the centre of the container lid.

Cut a smaller X shape in the edge of the container lid, large enough to put a straw through.

Carefully clean off the roots of a 2 inch tall seedling. Wash off the initial growing medium.

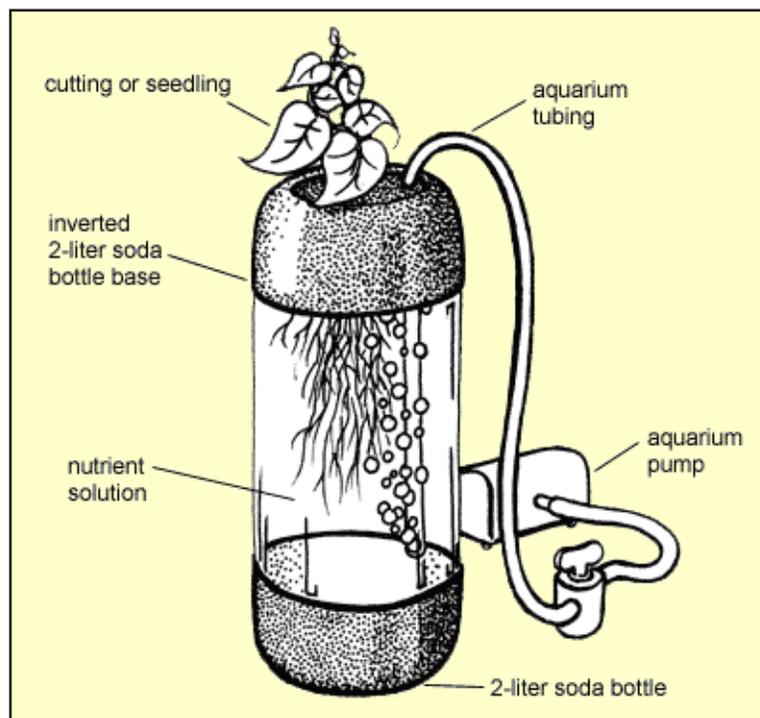
Gently insert the seedling through the large X, then put cotton balls around the stem to protect and secure it.

Fill the container with a dilute nutrient solution, making sure that the root system but not the stem is completely immersed in the nutrient solution. Secure the lid on the container.

Insert a drinking straw in the smaller X, gently aerate the solution twice a day by blowing into the straw.

Try to keep the nutrient solution between 5.8 and 6.5pH and at 70F. Change the nutrient solution every 2 weeks using a full strength solution.

Soda Bottle Aeration





Top Ten Reasons to Eat Your Greens

From http://www.doe.k12.de.us/files/pdf/child_eatyourgreens.pdf

- # 10 - Your mother told you there are few other vegetables that are as rich in essential vitamins, vital minerals and food value as cruciferous vegetables!
- # 9 - Your mother told you they are high in calcium. (Cruciferous vegetables are excellent natural sources of calcium, which helps to maintain healthy bones and prevent osteoporosis.)
- # 8 - Your mother told you they have high vitamin E. (Vitamin E has been found to inhibit skin tumors and carcinogenesis in a number of tissues.)
- # 7 - Your mother told you they have high ascorbic acid. (Since the body does not store vitamin C, adequate amounts must be taken every day. In addition to its cancer-inhibiting characteristics, ascorbic acid (vitamin C) is essential for the production of the white blood cells that protect against infections and bacterial toxins.
- # 6 - Your mother told you they are high in Beta-carotene. (Betacarotene is a component of dietary vitamin A. A single serving of broccoli or one of the greens has enough beta-carotene to provide more than the daily allowance requirement of Vitamin A).
- # 5 - Your mother told you they are high in fiber. (The American Institute for Cancer Research guidelines call for the consumption of 25-35 grams of fiber a day).
- # 4 - Your mother told you they are low in calories.
- # 3 - Your mother told you they have no cholesterol.
- # 2 - Your mother told you they are fat free. (Increasing the amounts of vegetables in our diets can help in controlling weight).
- # 1 - Your mother told you to join the Cruciferous Crusaders All-Star Cancer fighting team. (35% of all cancer deaths may be related to what we eat. Consumption of certain vegetables, especially cruciferous vegetables, has been associated with a reduction in the incidence of cancer in humans).

Tomatoes

Another key component in salads is the tomato. Tomatoes are a good source of vitamin C and A. Are tomatoes a vegetable or a fruit? It is actually a fruit (a fruit is an organism that develops from an ovary of a flower and enclosed the enveloping seed). The tomato is a berry, composed of seed surrounded by parenchymatous cells. Tomatoes have a high **lycopene** (a red pigment and strong anti-oxidant) content - which some researchers feel is helpful in fighting cancer.



Tomato Tips

- Tomatoes should never be refrigerated as they will lose their taste and flavour.
- To retain their juice, slice fresh tomatoes from the top to the bottom, not crosswise.
- Keep tomatoes on the counter, out of the direct sunlight to finish ripening naturally.
- Choose tomatoes that are plump and heavy for their size.
- Don't store other fruit with tomatoes and vegetables as tomatoes emit ethylene, which can spoil other produce early.
- To speed the ripening of a tomato put it in a brown bag with an apple or pear - the ethylene from these fruits as well as from the tomato will speed ripening.



Other vegetables and fruits can be added to salads: the choice is endless.

- Try different kinds of salad greens, with different ingredients and different salad dressings.
- Try adding chick peas, cucumbers, peppers, cheeses, and meats to salads.
- **Salad dressings** - those made with olive and canola oil are some of the healthiest to use. If you use store-bought dressings, make sure you check the fat content listed on the nutritional information label!



Caesar Salad

Ingredients - Salad:

1 head romaine lettuce

Croutons

45mL (1/3 cup) parmesan cheese

Dressing: Original (from Company's Coming, Jean Pare)

1 garlic clove

1 egg yolk

15mL (1 tbsp) lemon juice

5mL (1 tsp) Worcestershire sauce

75mL (5 tbsp) salad oil

30mL (2 tbsp) red wine vinegar

1 mL (1/4 tsp) salt

1/2mL (1/8 tsp) pepper

1/2- 1 tin anchovies

125mL (1/2 cup) parmesan cheese

Lower fat version (adapted from Lighthearted, Anne Lindsay)

25mL (2 tbsp) lemon juice 25mL (2 tbsp) olive oil

15mL (1 tbsp) water 15mL (1 tbsp) parmesan cheese

2mL (1/2 tsp) dry mustard 5mL (1 tsp) Worcestershire sauce

1 anchovy fillet, or 5mL (1 tsp) anchovy paste

salt and pepper

Mix all ingredients for dressing together, mix well. Just before serving, tear romaine lettuce into salad bowl. Pour dressing over and toss to mix. Add croutons and cheese, toss again. Serves: 5-6





Herb Vinaigrette

Ingredients:

1 clove garlic	25mL (1 tbsp) tarragon or white wine vinegar
5mL (1 tsp) Dijon mustard	15mL (1 tbsp) olive oil
50mL (1/4 cup) water, orange juice, unsweetened pineapple juice, or chicken stock	
1 green onion, minced	50mL (1/4 cup) chopped fresh parsley

Blend the above ingredients or mix in a bowl.

Seasonal Additions to salads:

Winter: cherry tomatoes, orange or grapefruit sections, sliced green apples, alfalfa sprouts

Spring: fiddleheads, asparagus, chives, watercress

Summer: radish, cucumber, tomato, green onions, rose or geranium petals

Fall: sweet peppers, cauliflower, broccoli, radicchio



Mmmmm.....fiddleheads!

Language Arts #5

LEAFY GREENS BINGO



[Printable Bingo Card](#)

OBJECTIVE: Students will recognize words connected with leafy greens lessons.

DIRECTIONS:

1. Hand out one [Bingo card](#) and one [word list](#) per student.
2. Have students copy words in random order onto the Bingo card so that no two students' cards are exactly the same.
3. Play "Bingo" by the teacher calling out one word at a time and students circling the word as they find it.
4. Winner will be the first student who circles five in a row, either vertically, horizontally, or diagonally. Remember to circle the free space in the center of the card!

[Language Arts](#) | [Main Menu](#)

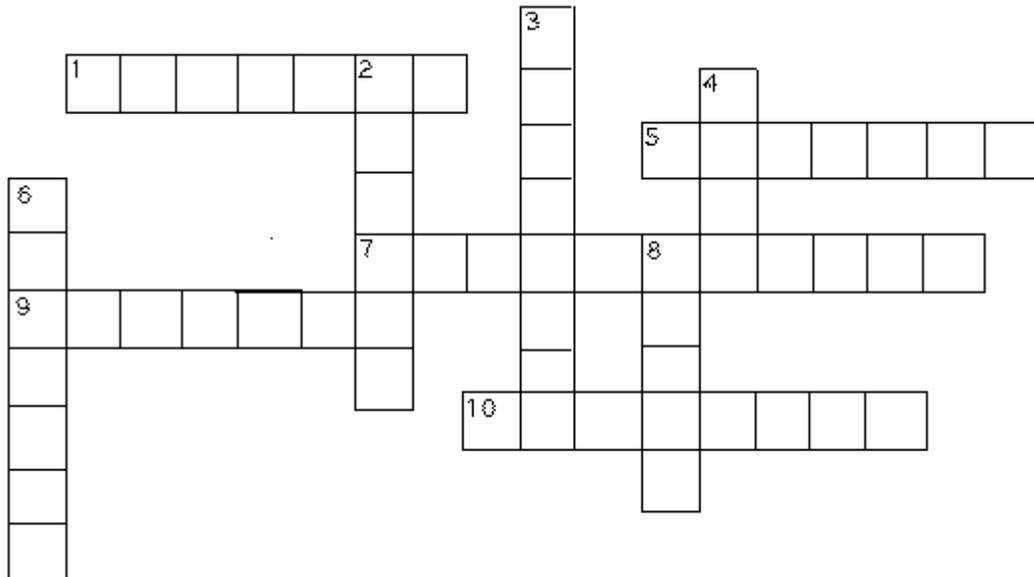
BINGO

		FREE		



Language Arts #3

CRUCIFEROUS CRUSADERS CROSSWORD PUZZLE



Across

- 1. Popeye gets his strength from _____.
- 5. Cabbagesaurus gets his strength from _____.
- 7. Join the _____ Crusaders by eating at least one leafy green vegetable a day.
- 9. A salad tastes great made from low-calorie _____.
- 10. Leafy greens are high in vitamins and _____ .

Down

- 2. Eating leafy greens may reduce your risk of _____.
- 3. Green flowery vegetable shaped like a tree-_____.
- 4. Kale-O-Don gets lots of calcium from _____.
- 6. Lettuce is a great low-___ vegetable.
- 8. Broccadactyl gets his power source, _____, from broccoli.

Use these words to fill in your Cruciferous Crusaders Crossword:

- KALE
- CRUCIFEROUS
- BROCCOLI
- LETTUCE
- SPINACH
- CABBAGE
- FIBER
- MINERALS
- CANCER
- CALORIE





Biotechnology

Roll Call: What is food biotechnology?

Answer to Roll Call:

ACTIVITIES:

1. Have a debate about the pros and cons of biotechnology, or prepare a flip chart with pros and cons from the members, or have them prepare a comparison chart themselves.
2. Brainstorm some biotechnology uses that the members may know of.
3. Do the Onion DNA Extraction - see attached sheet
4. How many words can you make out of Biotechnology. A 3 letter word gets 1 point, a 4 letter word gets 2 points and a 5 letter word gets 3 points, add 1 point for each letter over. Who gets the highest score? E.g. Boot = 2 points.
5. Prepare a biotech meal. The meal could include: cheese, canola oil, bread, corn, potatoes, squash, soybeans, peanuts

ACTIVITIES: In Depth

1. Have members research canola oil and present their findings at the next meeting.
2. Discuss the question, 'should all biotech foods be labelled?'
3. Go over some examples of genetic alteration (found on page 124).
4. Invite an expert to speak about biotechnology.
5. Visit a kitchen made from renewable resources - i.e., from wheatstraw.
6. Incorporate the activities and info found in "Look Closer at Biotechnology," "Biotechnology Basics Activity Book", "Tastes from the Green Kitchen," "Food Biotechnology. A Critical Analysis of Current Issues", all available from: Council for Biotechnology Information. www.whybiotech.ca
7. Have a green night and talk about composting, biodegradables, and a greener world.
8. Visit a horticulture station or nursery and discuss cross pollination and breeding.

Resources:

- Modern Food Biotechnology: Principles and Perspectives. Dietitians of Canada.
- www.dietitians.ca.
- What's for Dinner, Genetic Engineering. Food Safety Network
- www.whybiotech.ca
- www.inspection.gc.ca
- www.foodsafetynetwork.ca



Biotechnology is a very old process that has been used for generations. Gregor Mendel in Austria studied how traits are passed from parents to children 200 years ago. It is the use of biological systems to make or to change products. Traditionally it is best known in the baking of bread and making cheese where yeast or cultures change the original food. More recently we think of biotechnology as altering a product by cross-breeding with selected genes to produce a grain that may be more desirable, or resistant to a specific disease, or have traits or features that the consumer wants.

Gene: this is the hereditary unit that makes the "blueprint" of all beings, this is DNA (deoxyribonucleic acid). Genes are made of DNA and contain the coded instructions for proteins that determine a person's hair colour, and eye colour. All living organisms use DNA as their genetic code.

Genetic Modification: is changing the genetic traits of an organism intentionally. This can be done by genetic engineering or cross-breeding.

Food biotechnology is a process used by scientists to enhance production, nutritional value, safety and taste of foods. It is a benefit to society as crops can be developed which require fewer pesticides. Scientists may alter sweet corn to make it sweeter tasting, or perhaps ripen earlier.

Genetic Engineering: is the process whereby the scientist transfers a gene or genes from 1 species into another species. They can copy genes and modify them so that they will work in a new host either to produce or reduce a product. This process can also be called Recombinant DNA technology. Foods that have been genetically altered are called GM foods.

Genetic engineering can alter the number of peas in a pod, the colour of flowers, and the height of corn. It can yield foods that are more flavourful, contain more vitamins and minerals, and absorb less fat when cooked. It can give us crops that are resistant to pests and insects. It may yield crops that are drought resistant, perhaps remove allergens from nuts, even produce plants that absorb nitrogen more efficiently so that less fertilizer will be required. The future possibilities of biotechnology are endless!

There are 5 Waves of Biotechnology:

1. Reduction of pests, insecticides and weeds
2. Development of cold, frost, drought and light resistant plants
3. Nutraceuticals and functional foods: making food richer in lycopene (in tomatoes that reduce the risk cancer), higher in folate (beans - reduce cancer). Building genes into plants that may reduce health costs.
4. Industrial use of plants and animals: corn is used for bicycle tires, toothpaste, road deicers, etc. Using plants and animals in different ways, perhaps "green gold".
5. Plant-based fuels. Ethanol fuel is a high octane water-free alcohol that is used in cars today. Ethanol comes from corn. Corn can be genetically altered to produce a high octane capacity.



What are the Benefits of Biotechnology?

Nutrition: scientists can develop foods with added vitamins and minerals. This is wonderful for developing countries. "Golden rice" has been developed that will deliver nutrients that the body can convert to Vitamin A which has been lacking in the diets of third world countries.

Medicine: scientists can locate and study the genes that cause certain genetic diseases, or those that make people susceptible to heart disease, degenerative brain disorders like Alzheimer's and certain types of cancer, diabetes, arthritis and lupus. Gene technology has provided many tests that can quickly diagnose infectious diseases in animals and man. It also has provided new vaccines to help protect people against disease where the conventional vaccines have not worked. Scientists are trying to design antibiotics that will be for specific bacteria. Gene technologists have made great progress in understanding the malaria parasite, and the AIDS virus and are developing vaccines to prevent these diseases.

Safety : Scientists agree that foods that have been altered by biotechnology are safe, perhaps even safer for the environment as they require fewer pesticides.

Food Supply: the world population is rising, and more food is required to feed these people.

Biotechnology is developing crops that can thrive in harsh climates where they have been unable to grow until this point. This will make more land available for crop production to help feed the increasing population. They can develop crops that can grow with very little rain. Rice biologists have identified all the genes in rice. This gives them the ability to double the worldwide production of rice to meet the needs of the growing population.

Natural Protection From Pests: fruits and vegetables can be modified to naturally resist pests so that farmers can use less pesticides and herbicides.

Cost Savings: if the cost of pesticides and herbicides is reduced or eliminated, then the farmer can charge less for his produce and you pay less at the grocery store. Some feel that genetic alteration of foods will help provide a solution for poverty.

What are the risks of Biotechnology??

Leaf-chewing and sap-sucking insects and larvae can eat the leaves of plants that have been altered to contain a toxin. Then the caterpillar can die (e.g. monarch butterfly eating the insect resistant Bt gene (genetically altered maize) on pollen from the maize which has landed on the milkweed).



Copyright Joe Mabel

There is some evidence that crops modified for herbicide tolerance could cross-breed with nearby weeds of the same family or even other crops in the nearby area. Pollen can travel up to 2.6 km in minute amounts. There is a suggestion that biodiversity in the fields may be reduced.

In the medical field, gene technology has created many ethical questions about cloning, germline gene therapy and the privacy of genetic information.

Gene technology is a very new and powerful technology. No one can say for sure that it is totally safe, without any risk. Nor can anyone predict the health, environmental, economic and social effects - good or bad.





Examples of Current Uses of Biotechnology

- if you are a diabetic, you are already using gene-modified insulin
- during pregnancy, many women have a DNA probe to check for any abnormalities in their baby.
- people who have certain blood disorders can have their bone marrow removed, modified and re-inserted. This process does not require compatible donors.
- bread and cheese may be made using genetically modified enzymes.
- poultry - to boost the natural immunity so that antibiotics do not have to be used.
- pigs- to boost natural immunity and prevent antibiotic use.
- dairy cattle - to remove lactose from milk for lactose intolerant people
- fish- to boost productivity
- flowers - to produce new commercial flowers that may be a different colour.
- medicines- to produce more effective drugs.

The uses of biotechnology are so numerous that it would be impossible to list them all.



Onion DNA Extraction

Materials Needed

3 onions	2 - 250mL (1 cup) measuring cups
knife for cutting onion	15mL test tube (a narrow glass container e.g. liqueur glass, or clear bud vase)
blender	strainer
coffee filters	non-iodized salt
Adolph's natural meat tenderizer	Palmolive detergent
distilled water	ice cold 95% ethanol (available at drug stores)

Solutions

Detergent / Salt Solution

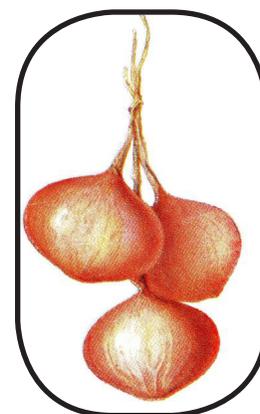
20mL (1 tbsp) detergent	20 g (20 mL or 4 tsp) non-iodized salt
180mL (3/4 cup) distilled water	

5% Meat Tenderizer Solution

5 g (5mL or 1 tsp) meat tenderizer) - final volume 100mL
95mL distilled water

Directions:

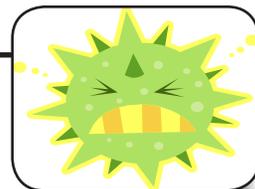
1. Cut a 2cm (1 inch) square out of the centre of 3 medium onions. Chop and place in a blender.
2. Add 100mL (a bit less than ½ cup) of detergent / salt solution.
3. Blend on high for 30 seconds to 1 minute.
4. Strain the mixture into a measuring cup using a strainer with a coffee filter.
5. Add 20-30mL (approx. 1 tbsp) meat tenderizer solution and stir to mix.
6. Place 6 mL (1 tsp) into a test tube, or glass bud vase.
7. Place 6 mL (1 tsp) ice cold ethanol (keep in freezer overnight) carefully down the side of the tube to form a layer.
8. Let the mixture sit undisturbed 2-3 minutes until bubbling stops.
9. The DNA will float in the alcohol. Swirl a toothpick or coffee stick at the interface of the 2 layers and see the small strands of DNA.



Adapted from: "Isolation of DNA from Onion" Ellen Averill, and Lana Hays

www.accessexcellence.org - Access Excellence at the National Health Museum





Fight BAC

Roll Call: Have you ever been sick from food poisoning? If so, what food did you eat?

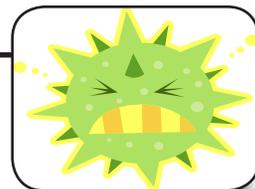
Answer to Roll Call:

ACTIVITIES:

1. Check out the resources at the U.S. Food and Drug Administration, <http://www.foodsafety.gov/~fsg/fsgkids.html>. This is a comprehensive source for experiments, activities, quizzes, and word games. Good ideas for making a puppet, washing hands, etc.
2. Visit www.inspection.gc.ca. This is a great source - it has an interactive food safety web wheel, and a safe temperature game with 4 levels
3. Make yogurt (recipe found on the next page)
4. Have the members write down what they take to school in their lunch. The lunch leaves home at 0800 hours and may not be eaten until 1200 hours. With the members, identify which food could be at risk for food poisoning. Brainstorm ideas that could be used to make the lunch safer: different foods, different methods of carrying the food.
5. Have a flip chart and have the members suggest all the foods that they eat with their fingers (ice cream cones, corn on the cob, cookies, etc). Have the members suggest ways to make this safer (wash their hands, use a serviette, etc).
6. Role play with a picnic or barbecue scene- identify areas where food pathogens might be a problem.
7. Have the members make up a menu - and identify every place where food pathogens could occur
8. Invite a speaker from your local public health unit to come do a demonstration on proper hand washing

ACTIVITIES: In Depth:

1. Have members plan to set up a food/ restaurant business to make extra \$. Perhaps a pizza franchise, or a hot dog stand. Have them plan all the food safety factors that must be employed. Check with your local municipality or health unit to find out what health regulations they need to consider when setting up a restaurant / outdoor food stand. Once they are done, consider running the enterprise as a fundraiser!
2. Have members do research on a specific pathogen: identify its source, details of the bacteria, growth requirements and favourite foods. Have them present their findings to the club using visual aids.
3. Arrange a tour for the members with the Public Health Inspector and/or a lecture with the Health Unit about food safety.
4. Survey the group, or a school class, or family members on hand washing procedures, or other food safety factor. Even see how many people / families have and/or use a food thermometer
5. Design a poster or flyer promoting the use of food thermometers.



"We are what we eat."

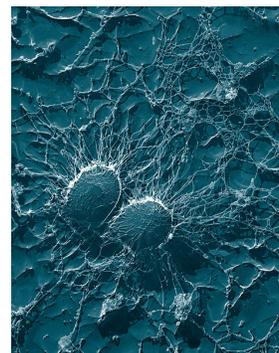
You have often heard this phrase. Our health and energy are directly connected to the food we eat. Our provincial and federal governments have regulations and inspections to make sure that the food is safe when we purchase it at grocery stores, convenience stores, fruit stands, and restaurants. After this point, it is up to each of us to make sure the food remains safe to eat.

There are many types and kinds of bacteria that exist naturally in our environment. Some of these are helpful, but others can cause harm. Yogurt (uses *Streptococcus thermophilus*) and cheeses (uses *Streptococcus diacetylactis*) are made using helpful bacteria. Chocolate (yeast and bacteria break down the pulp that covers the cocoa beans) and pickles also use bacteria in their production. Winemakers do not care for bacteria as they can change the wine to vinegar. To prevent this from happening they add acetobacter, which stops the action of the bacteria.

Some of these bugs we might 'like to hug'. But others we would not!

Some bacteria can cause food to spoil, and others like:

- Escherichia coli (E. Coli 0157:H7)
- Campylobacter jejuni
- Clostridium botulinum
- Salmonella enteritidis
- Staphylococcus aureus



Staphylococcus aureus

can all produce toxins that cause people to get sick - these are called pathogens.

Bacteria (BAC) are very small but very mighty! They like warm, moist conditions and can double their number every 15-30 minutes at room temperature. The number of pathogens required to make a person sick is not known, perhaps even 10, or maybe 100 million depending on the ability of the pathogen and /or its toxin. Each pathogen has a favourite food! Different people react differently to pathogens. The elderly, young, and those already ill are most likely to get sick.

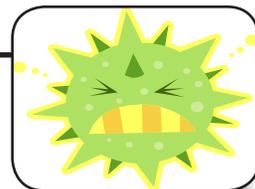
Health Canada estimates that 2 million Canadians are affected by food poisoning each year. Many cases go unreported as the symptoms are very like the "flu". Unsafe food handling practices in the home are a leading cause of food borne illness.

The symptoms of food poisoning are:

- severe stomach cramps
- vomiting
- diarrhea
- fever
- headache

If you have these symptoms, drink plenty of fluids, rest and consult a doctor if you do not get better. Most bacteria are killed by thorough cooking, but some bacteria produce toxins that are not destroyed by heat.





What can we do about Food Safety?

Food Safety is in Your Hands!

There are 4 steps that can reduce the risk of food poisoning:

1. CLEAN

Wash your hands (for at least 30 seconds, make sure your nails are clean), utensils, and surfaces with hot soapy water before, during and after preparing foods. Sanitize countertops, cutting boards, and utensils with a mild bleach and water solution. Wash all produce before eating or cooking.

2. SEPARATE

Keep raw meats and poultry away from other foods during storage and preparation. Keep separate cutting boards for raw meats and vegetables. Always keep foods covered. Store food following the directions on the package. Check the "best before" date. Thaw foods correctly - in the refrigerator, in running water, or in the microwave. If a food does not look right, smells unusual or feels different, best throw it away. Serve cooked meat on a different platter or plate than the one used for the raw meat.

3. COOK

Cook food thoroughly. Cooking times and temperatures vary for different foods. Cooked food should be held and served at 60C. Prepare foods quickly and do not let foods stay at room temperatures for long periods (as this is the temperature that BAC love).

Hint: A Food Thermometer is very important to ensure that food is stored, cooked and served safely.

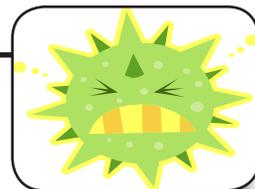
4. CHILL

Refrigerate or freeze perishables, prepared food and leftovers within 2 hours. Internal refrigerator temperature should be between 0 and 4C (40F). Frozen foods should be kept at -18C (0F). Chill foods quickly by putting the food in smaller, shallow containers. Once food has been thawed it must be cooked. After thoroughly cooking it could be frozen again.

NOTE:

All this information is available on hand-out glossy sheets or can be downloaded from the internet at: www.canfightbac.org. This is a wonderful site with many activities, handouts, and brochures available. Check out the learning centre, and downloads sections.





Foods that are usually safe from pathogens are:

• nuts and peanut butter	• breads, buns, crackers, cereals and cake
• jams, honey, syrup and candy	• butter, margarine, and cooking oil
• dry cereals	• powdered milk (until mixed)
• cooked and dried fruit	• raw vegetables
• condiments: pickles, relishes in vinegar, mustard, ketchup	• fruit juices, carbonated drinks
• snack foods like chips	• Spices
• <i>all foods in cans and flexible pouches until opened, or until past their expiry date</i>	

Foods that may become unsafe if not properly handled

a) Foods that need to be thoroughly cooked:	
• all meat	• eggs
• shellfish	
b) Foods that need to be properly refrigerated:	
• salads with cooked meat, poultry, eggs and fish	• cooked vegetables
• cooked cereals	• custards, puddings and whipped cream
• milk and milk products	• salad dressings
• processed meats (ham, bologna, salami, wieners)	• gravies and sauces
• meat sandwich spreads	• egg products
• all cheese	

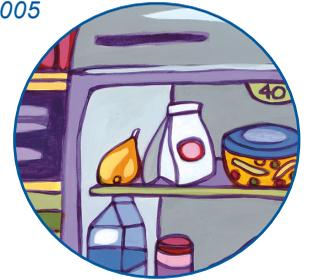




DID YOU KNOW?

Among consumers ages 25 to 44, 16 percent report they own a refrigerator thermometer. The best way to make sure your refrigerator is at 40° F is to use a refrigerator thermometer.

– FMI Trends, 2005



BAC Down!

Refrigerate Promptly and Properly

According to both the U.S. Food and Drug Administration and the U.S. Department of Agriculture’s Food Safety and Inspection Service, refrigeration at 40° F or below is one of the most effective ways to reduce risk of foodborne illness. Microorganisms grow more rapidly at warmer temperatures, and research shows that keeping a constant refrigerator temperature of 40° F or below helps slow growth of these harmful microbes.



BUY SOME PEACE OF MIND:
Refrigerator thermometers are available at grocery, hardware and discount stores.

The Cool Rules



Use This Tool to Keep It Cool

Use a refrigerator thermometer to be sure the temperature is consistently 40° F or below.

The Chill Factor

Refrigerate or freeze perishables, prepared foods and leftovers within two hours of purchase or use. Always marinate foods in the refrigerator.

The Thaw Law

Never defrost food at room temperature. Thaw food in the refrigerator. If you will cook food immediately, for a quick thaw, defrost in the microwave or enclose the food in an airtight package and submerge it in cold water.

Divide and Conquer

Separate large amounts of leftovers into shallow containers for quicker cooling in the refrigerator.

Avoid the Pack Attack

Do not overstuff the refrigerator. Cold air must circulate to keep food safe.

Rotate Before It’s Too Late

Use or discard chilled foods as recommended in the USDA Cold Storage Chart found at www.foodsafety.gov/~fsg/f01chart.html.

Don’t Go Too Low

As you approach 32° F, ice crystals can begin to form and lower the quality of foods such as raw fruits, vegetables and eggs. A refrigerator thermometer will help you determine whether you are too close to this temperature.





Always refrigerate or freeze meat, poultry, eggs, and other perishables as soon as you get them home from the store. Never let raw meat, poultry, eggs, cooked food, or cut fresh fruits and vegetables sit at room temperature more than two hours before putting them in the refrigerator or freezer. Reduce that to one hour when the temperature is above 90° F.

Serve & Preserve

When serving cold food at a buffet, picnic or barbecue, keep these “chilling” tips in mind:

- Cold foods should be kept at 40° F or below.
- Keep all perishable foods chilled right up until serving time.
- Place containers of cold food on ice for serving to make sure they stay cold.
- It's particularly important to keep custards, cream pies and cakes with whipped-cream or cream-cheese frostings refrigerated. Don't serve them if refrigeration is not possible.



Hit the Road Cold!

When traveling with food, be aware that time, temperature and a cold source are key.

- Always use ice or cold packs, and fill your cooler with food. A full cooler will maintain its cold temperatures longer than one that is partially filled.
- If you've asked for a doggie bag to take home leftovers from a restaurant, it should be refrigerated within two hours of serving.

The Big Thaw

There are three safe ways to defrost food: in the refrigerator, in cold water, and in the microwave.

DEFROSTING DO'S

- Defrost food in the refrigerator. This is the safest method for all foods.
- Short on time? Thaw meat and poultry in airtight packaging in cold water if it will be used immediately. Change the water every 30 minutes, so the food continues to thaw in cool water.
- Defrost food in the microwave only if you are going to cook it immediately.

DEFROSTING DON'TS

- Never defrost food at room temperature. Food left out at room temperature longer than two hours may enter the Danger Zone—the unsafe temperatures between 40° F and 140° F. Bacteria can multiply rapidly between 40° F and 140° F.
- Don't defrost food in hot water.



- If you have questions or concerns about food safety, contact:
- The U.S. Department of Agriculture (USDA) Meat and Poultry Hotline at 1-888-MPHotline (1-888-674-6854). TTY 1-800-256-7072.
- The Fight BAC!® Web site at www.fightbac.org.
- Gateway to Government Food Safety Information at www.foodsafety.gov.

The Partnership for Food Safety, a non-profit organization, is creator and steward of the Fight BAC!® food safety education program developed using scientifically based recommendations resulting from an extensive consumer research process.



DID YOU KNOW?

It is important to consistently wash hands and kitchen surfaces before and after preparing food. 67 percent of Americans report they “always” wash cutting boards, utensils, and countertops after preparing each food.
 – 2004 Consumer Survey, Partnership for Food Safety Education

Wash hands and surfaces often.

You can't see, taste or smell them. They're sneaky little critters, and they can spread throughout the kitchen and get onto cutting boards, utensils, countertops, and food. They're foodborne bacteria—and if eaten, they can cause foodborne illness. So on your mark, get set, go . . . CLEAN!

THE BIG 3: To Fight BAC!® always...



- 1 Rub-a-Dub**
Wash your hands with warm water and soap for at least 20 seconds before and after handling food and after using the bathroom, changing diapers and handling pets. For best results, use warm water to moisten hands, then apply soap and rub hands together for 20 seconds before rinsing thoroughly.
- 2 Keep your Scene Clean**
Wash your cutting boards, dishes, utensils, and countertops with hot soapy water after preparing each food item and before going on to the next food.
- 3 Towel Toss**
Consider using paper towels to clean up kitchen surfaces. When done, throw away the towel. If you use cloth towels, wash them often in the hot cycle of your washing machine.

Wash!

Always wash hands with warm water and soap:

- before handling food;
- after handling food;
- after using the bathroom;
- after changing a diaper;
- after tending to a sick person;
- after blowing nose, coughing, or sneezing; and
- after handling pets.

Surface Cleaning Tips

Using a mixture of one teaspoon liquid chlorine bleach per quart of water can provide some added protection against bacteria on surfaces. Flood the surface with the bleach solution and allow it to stand for several minutes, then rinse and air dry or pat dry with fresh paper towels. Never use bleach or detergent to clean food. Bleach and other cleaners are not intended for consumption.



Fruit & Veggie Handling



PREP THE KITCHEN

Before preparing fruits and vegetables, wash your hands with warm water and soap and use hot soapy water to clean your cutting board, countertop and utensils.

USE WATER – Thoroughly rinse fresh produce under running tap water, including those with skins and rinds that are not eaten. Never use detergent or bleach to wash fresh fruits or vegetables. These products are not intended for consumption.

SCRUB THOROUGHLY – Rub firm-skin fruits and vegetables under running tap water or scrub with a clean vegetable brush while rinsing with running tap water.

CUT FOR CAUTION – Remove and throw away damaged or bruised areas on produce. Bacteria can thrive in these places.

TIPS

- When cooking, wash your food thermometer after each use.
- Wash lunch boxes or totes every night.
- Once a week, throw out perishable foods that should no longer be eaten.
- Wash refrigerator surfaces with hot soapy water.

BAC! Attack



How long should you wash your hands to send bacteria down the drain?

- a. 5 seconds b. 10 seconds c. 15 seconds d. 20 seconds

Answer: d – 20 seconds



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DID YOU KNOW?

One out of every four hamburgers turns brown before it has been cooked to a safe internal temperature.

– USDA FSIS



Cook to Safe Temperature

Cooking food safely is a matter of degrees! Foods are properly cooked when they reach a high enough internal temperature to kill the harmful bacteria that cause foodborne illness. How does your safe cooking know-how measure up?



DID YOU KNOW?

Thermy™ says, "It's safe to bite when the temperature is right!"

Cook It Right...

Food is safely cooked when it reaches a high enough internal temperature to kill the harmful bacteria that cause illness as measured with a food thermometer. Refer to the Safe Cooking Temperatures on the next page.

...And Keep It Hot

When serving up hot food buffet-style, remember...

On a buffet table, hot food should be kept at 140° F or higher. Keep food hot with chafing dishes, slow cookers and warming trays.

When bringing hot soup, chili or crab dip to an outdoor party...

Keep it all piping hot before and during serving. Transport hot foods in insulated thermal containers. Keep containers closed until serving time.



DID YOU KNOW?

Half of Americans surveyed say they use a food thermometer to check the internal temperature of meat and poultry when cooking.

– 2004 Partnership for Food Safety Education





Sizzling Cooking Tips

Is It Done Yet?

Use a clean food thermometer to measure the internal temperature of food to make sure meat, poultry, egg dishes, casseroles, and other types of food are cooked all the way through.

Microwave Musts

When cooking in a microwave oven, make sure there are no cold spots in food because bacteria can survive there. For best results, cover food, stir and rotate for even cooking. If there is no turntable, rotate the dish by hand once or twice during cooking. Observe stand times.

Boil and Bubble

Bring sauces, soups and gravies to a boil when reheating.

“EATING OUT” TIP OF THE DAY

Choose menu items that are thoroughly cooked. If it appears that any food, such as beef, pork, chicken, fish, or eggs, has not been thoroughly cooked, return the food for additional cooking.

SAFE COOKING TEMPERATURES

Internal temperature as measured with a food thermometer

Ground Meat & Meat Mixtures

Beef, Pork, Veal, Lamb	160°F
Turkey, Chicken	165°F

Fresh Beef, Veal, Lamb

Medium Rare	145°F
Medium	160°F
Well Done	170°F

Poultry

Whole poultry and poultry parts	165°F
Stuffing (cooked alone or in bird)	165 F

Fresh Pork

Medium	160°F
Well Done	170°F

Ham

Fresh (raw)	160°F
Pre-cooked (to reheat)	140°F

Eggs & Egg Dishes

Eggs	Cook until yolk & white are firm
Egg dishes	160°F

Seafood

Fin Fish	145°F
	or flesh is opaque & separates easily with fork
Shrimp, Lobster & Crabs	flesh pearly & opaque
Clams, Oysters & Mussels	Shells open during cooking

Scallops	milky white or opaque & firm
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Leftovers & Casseroles	165°F
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Keep it Clean!
Watch those Juices!
Remember to spread
the word—not the
bacteria!



Combat Cross-Contamination Get it straight—it's safe to separate!

Cross-contamination is how bacteria can be spread. Improper handling of raw meat, poultry and seafood can create an inviting environment for cross-contamination. As a result, harmful bacteria can spread to food and throughout the kitchen.

Separate. . .Don't Cross-Contaminate

KEEP IT CLEAN!

Lather Up

Always wash hands with warm water and soap for at least 20 seconds before and after handling food and after using the bathroom, changing diapers and handling pets. Always start with a clean scene—wash cutting boards, dishes, countertops, and utensils with hot soapy water.

Take Two

Use one cutting board for fresh produce and a separate one for raw meat, poultry and seafood.

Clean Your Plate

Never place cooked food back on a plate that previously held raw meat, poultry, seafood, or eggs.

WATCH THOSE JUICES!

Safely Separate

Separate raw meat, poultry and seafood from other foods in your grocery shopping cart and shopping bags, and in your refrigerator.

Seal It

To prevent juices from raw meat, poultry or seafood from dripping onto other foods in the refrigerator, place these raw foods in sealed containers or plastic bags on the bottom shelf of the fridge.

Marinating Mandate

Sauce that is used to marinate raw meat, poultry or seafood should not be used on cooked food unless it is boiled first.



- If you have questions or concerns about food safety, contact:
- The U.S. Department of Agriculture (USDA) Meat and Poultry Hotline at 1-888-MPHotline (1-888-674-6854). TTY 1-800-256-7072.
- The Fight BAC!® Web site at www.fightbac.org.
- Gateway to Government Food Safety Information at www.foodsafety.gov.

The Partnership for Food Safety, a non-profit organization, is creator and steward of the Fight BAC!® food safety education program developed using scientifically based recommendations resulting from an extensive consumer research process.

BAC-Catcher Game

Write your own food safety Questions and Answers in the Q & A triangles - two for each Action.

- Clean
- Separate
- Cook
- Chill

Have Fun Fighting BAC!

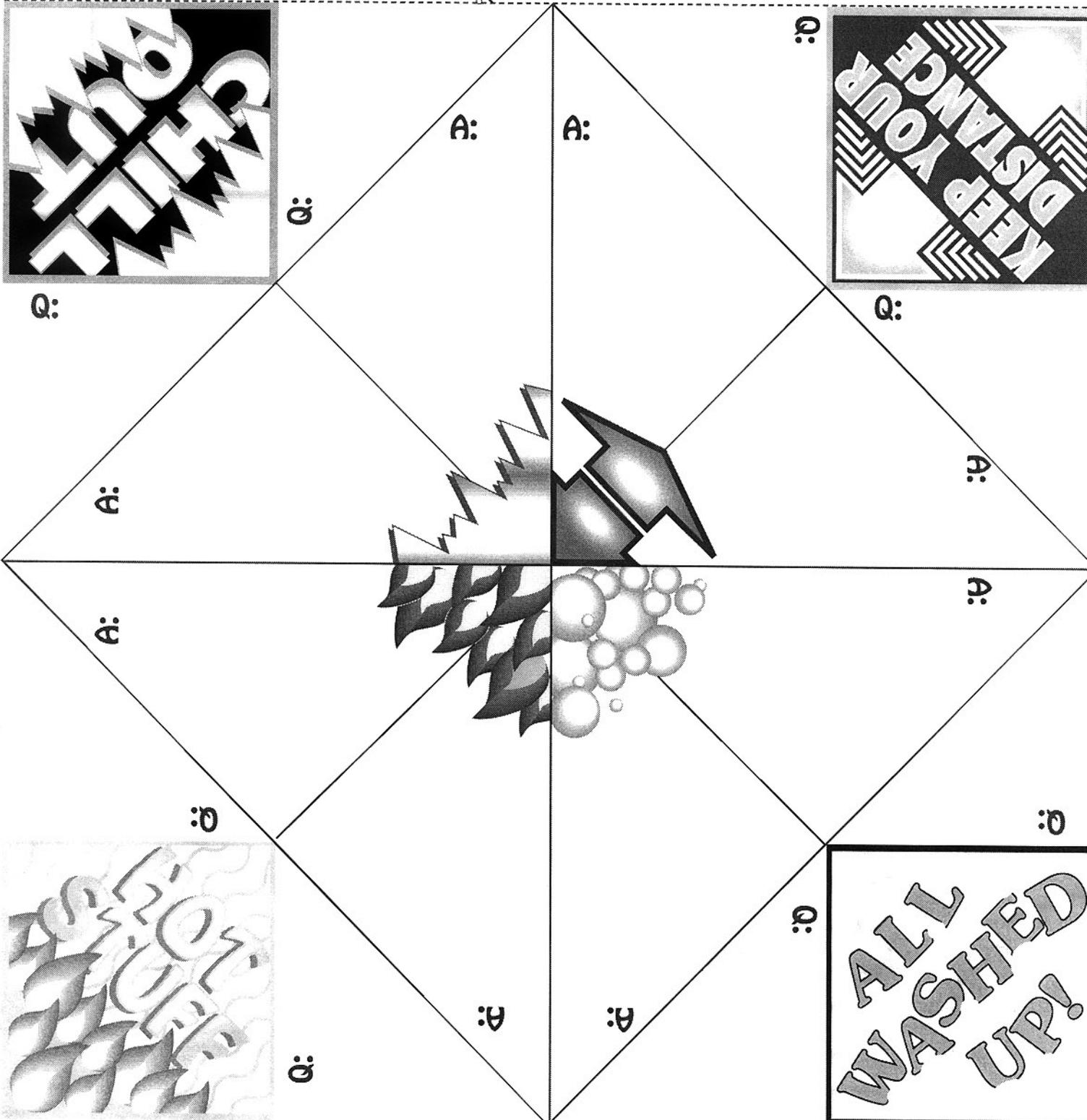
Folding Instructions

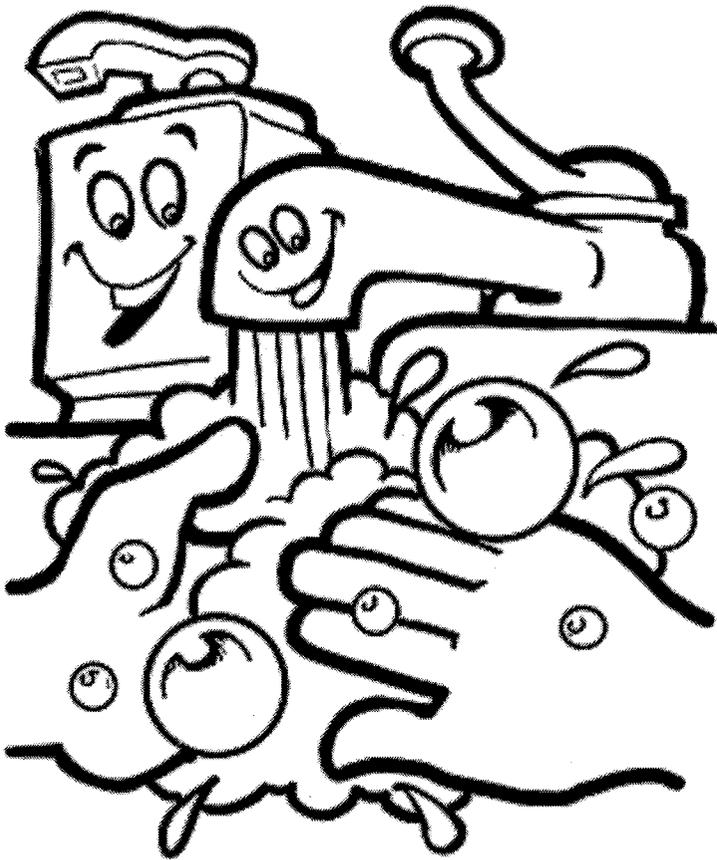
1. Cut along the dotted lines.
2. Place the BAC-Catcher facedown. Fold two corners together to form a triangle. Crease and unfold. Now fold the other two corners together; crease and unfold.
3. Fold each corner to the center point.
4. Turn the folded paper over and fold each corner into the center.
5. Fold the square in half. Unfold it and fold it in half the other way.
6. Using both hands, place your thumbs and index fingers under the flaps.

How to play

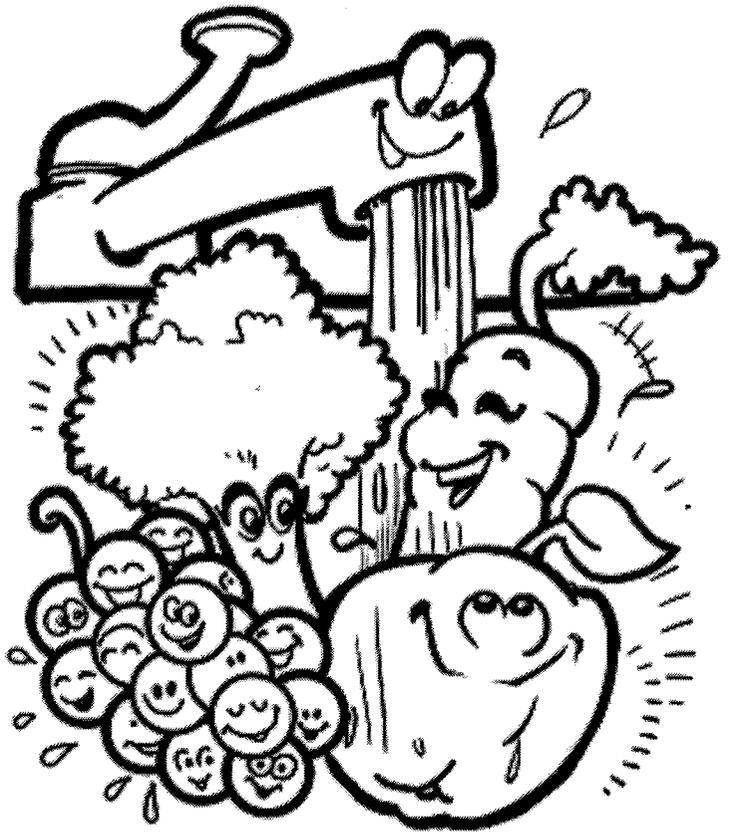
- This game is for two players. Ask the other player to pick one of the printed squares — for example, "Hot Stuff."
- Open and close the BAC-Catcher in an alternating direction for each letter of the phrase HOT STUFF (eight times).
- Ask the question closest to the phrase chosen and let the other player answer. Lift the flap to find the answer.
- Now give the BAC-Catcher to the other player. It's your turn to answer.
- Alternate asking and answering until all the questions are answered . . . everyone wins by learning about FOOD SAFETY.

Compliments of The Partnership for Food Safety Education Visit our web site: www.fightbac.org

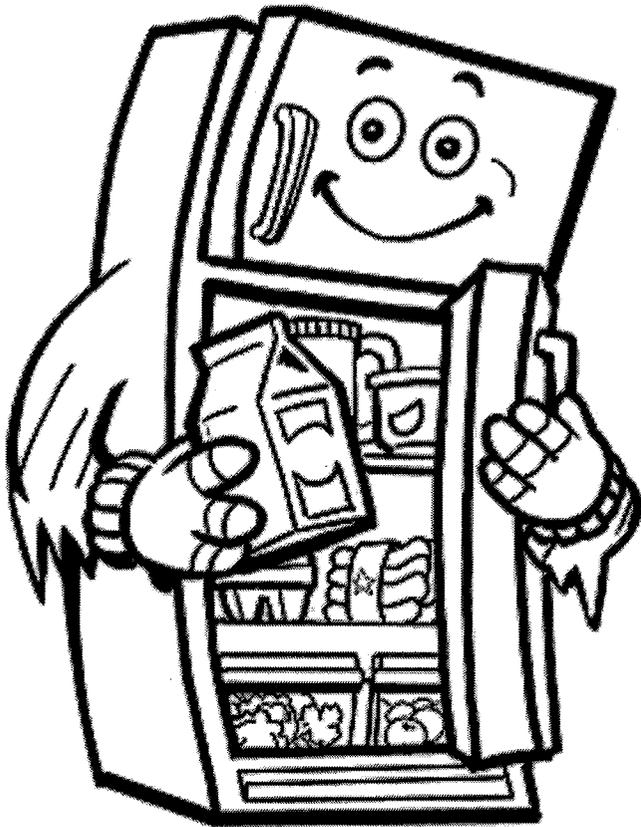




Wash your hands
With soap and water too



Wash your fruits and vegetables
and make them clean for you



Put food in the refrigerator
Do it right away



Keep counters clean where food is prepared
And chase those germs away.

FOOD SAFETY WORDFIND

Find and circle the food safety words which can help you to *Fight BAC!*TM in your kitchen at home.

FIGHTBAC
FOOD
SAFETY

CLEAN
COOK
CHILL
SEPARATE

A	S	C	L	E	A	N	E	E	F
D	A	G	H	J	Y	E	W	D	O
S	F	H	E	S	J	R	Z	Y	O
E	E	P	C	H	I	L	L	U	D
P	T	R	O	I	Y	W	C	E	E
A	Y	G	O	E	M	S	D	W	A
R	Y	D	K	M	F	W	A	S	I
A	S	W	W	E	E	F	Y	O	P
T	C	N	N	Q	M	M	E	T	U
E	Y	F	I	G	H	T	B	A	C

How you can *Fight BAC!*TM

- CLEAN: Wash hands and surfaces often.
- COOK: Cook to proper temperatures.
- SEPARATE: Don't cross-contaminate.
- CHILL: Refrigerate promptly.

www.canfightbac.org



The Canadian Partnership for Consumer Food Safety Education



CANADIAN PARTNERSHIP FOR
CONSUMER FOOD SAFETY EDUCATION
PARTENARIAT CANADIEN POUR
LA SÉCURITÉ DES ALIMENTS



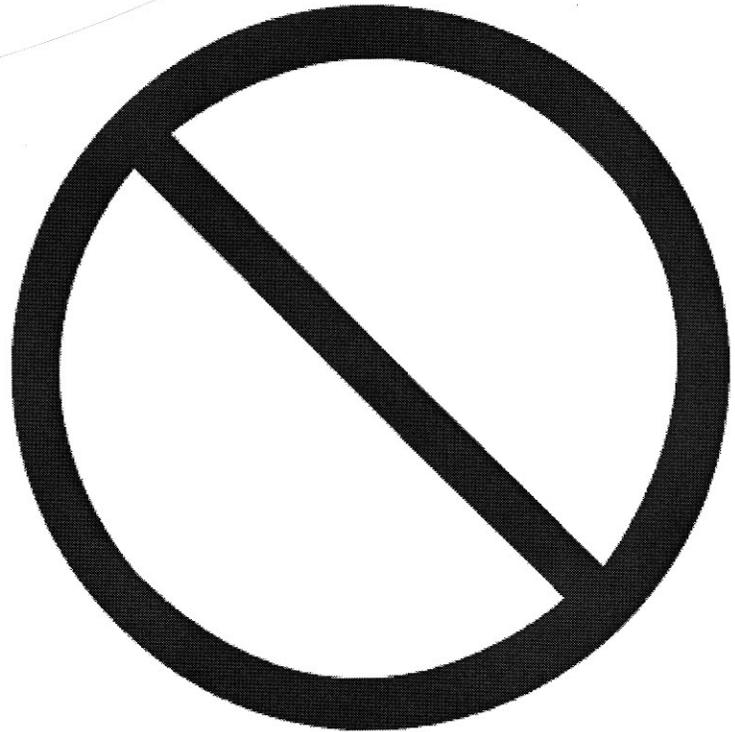
FIGHT BAC! PUPPET CHARACTER

Making Your Puppet

The puppet is your "partner" in the presentation (but he's certainly not a "good guy"). He's easy to make with the enclosed BAC Character® and either a sock or a lunch-sized paper bag.

You'll need:

- BAC Character®
- 1 sock (preferably a green one) or 1 lunch-sized paper bag
- Glue or tape
- Velcro® dots



1. Cut out the full-color BAC Character® and the symbol.

2. If using a sock:

- Using Velcro®, secure the BAC Character® to the sock.

If using a lunch bag:

- Place your hand inside the lunch bag. Mark where your thumb and pinky finger are.
- Cut holes in the bag for your thumb and pinky to fit through (they will move BAC's "arms").
- Glue the BAC Character® to the bag, placed so that his arms will be in front of your thumb and pinky.

3. Affix Velcro® dots to the front of the sock or the bag and to the symbol. At the end of the presentation, as BAC gets chased away, you can stick the symbol on his chest—or have one of the children do it.

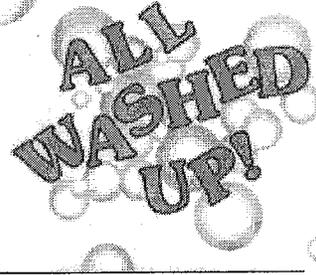


EXPERIMENT: Soapy Solutions

Question

What is the most effective way to remove bacteria from your hands?

My Hypothesis:



Materials Needed:

- Cooking oil
- Cinnamon
- Access to sink to wash hands
- Measuring spoons (teaspoon and tablespoon)

Ask three classmates to volunteer for the experiment.

1. Rub 1 tablespoon of cooking oil all over your hands until completely coated. Sprinkle 1 teaspoon of cinnamon on hands and rub it around until it's evenly distributed. The cinnamon will be like bacteria. It's all over!
2. Wash hands as follows, **rubbing them briskly for 20 seconds**:
 - *Student #1*: wash hands with **cold water and no soap**
 - *Student #2*: wash hands with **warm water and no soap**
 - *Student #3*: wash hands with **warm water and soap**

My Observations:

- The method of handwashing that removed the most "bacteria" was:

- The method that removed the least "bacteria" was:

Tell Your Family ...

Encourage all family members to wash hands with soap and warm water for 20 seconds.



TELL YOUR FAMILY ...

EXPERIMENT: There's More Than Meets the Eye

Question

Is it important to wash your hands before handling, preparing, or serving food -- even if they look clean?

Materials Needed:

- Two small Delicious apples, washed in advance (but not by the person cutting the apples)
- Potato peeler
- Small, clean knife
- Cutting board
- Two sterilized jars (see "tip" below) with screw-top lids
- Masking tape or gummed labels
- Felt-tip markers

Getting Ready

Label the jars:

- Jar 1 -- Washed Hands
- Jar 2 -- Unwashed Hands

1. Without washing hands, peel one apple and cut it in half on the cutting board.
2. Place one half of the apple in the jar labeled "Unwashed Hands." Screw the lid on tightly, compost the remaining apple.
3. Wash your hands thoroughly with soap and warm water for 20 seconds. Now wash the potato peeler, knife and cutting board with soap and warm water.
4. Peel the second apple and cut it in half.
5. Place one half of the apple in the jar labeled "Washed Hands." Screw the lid on tightly and compost the remaining apple.
6. Place jars in a warm place.

For the Class:

7. Observe the jars once daily for a week and record your observations.
- **Describe:** Do the apples look the same? If not, describe how they are different.

- This is what happened to each apple:

Tip:

To sterilize: Wipe clean with rubbing alcohol or wash in the dishwasher.



Tell Your Family ...

Make "Wash your Hands" reminders to hang near the kitchen sink or on the refrigerator at home to make sure that your family members are "All Washed Up" before they handle food.



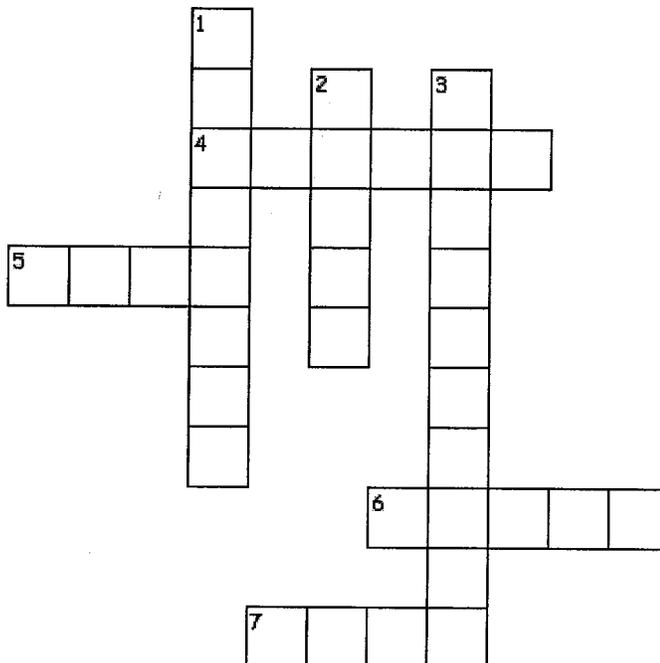
For Food Safety, Keep it ... CLEAN!

Right now there may be an invisible enemy ready to strike. He's called BAC (bacteria) and he can make you sick. But you have the power to Fight BAC!® and keep your food safe.

Check out the ways you can Fight BAC!®

- Wash your hands and surfaces often.
- Wash your hands with soap and warm water.
- Wash your hands:
 - before you make or eat a snack or meal,
 - after playing with pets, and
 - after using the bathroom.
- Wash fruits and vegetables with cold water before you eat them.
- Always use clean knives, forks, spoons, and plates.
- Always use a clean plate. Cooked foods should not be placed on the same plate that held raw meat, poultry, or fish.
- Only put food on clean surfaces. Never put your sandwiches or snacks on a dirty table or counter.
- Put backpacks and books on the floor. Don't put them on the kitchen table or counters.

Kids, complete this puzzle to see how much you have learned about fighting BAC!



DOWN

1. Place your _____ on the floor, not on the kitchen counter or table.
2. Always use clean knives, spoons, plates, and _____.
3. Use cold water to wash fruits and _____.

ACROSS

4. Place _____ foods on a clean plate.
5. Wash your hands with warm water and _____.
6. Counters should be _____ if you put food on them.
7. Wash your hands after playing with _____.

Be Smart. Keep Foods Apart. Don't Cross-Contaminate

Right now there may be an invisible enemy ready to strike. He's called BAC (bacteria) and he can make you sick. But you have the power to Fight BAC!® Be Smart. Keep Foods Apart—Don't Cross-Contaminate!

Check out the ways you can Fight Bac!®

Wash your hands with soap and warm water:

- before you make or eat a snack or meal;
- after playing with pets; and
- after using the bathroom.

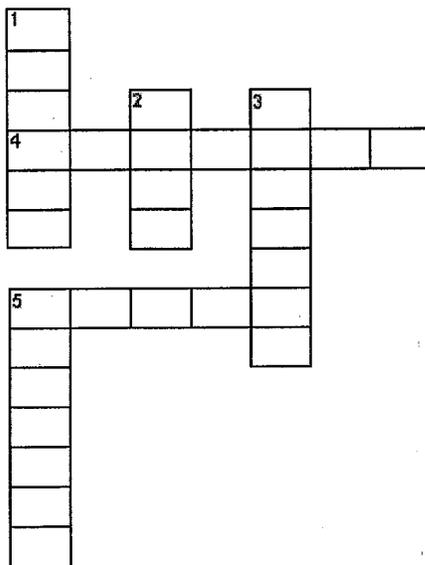
Remind grown-ups to always keep raw meat, poultry, and seafood apart from other foods. Don't let their juices drip on other foods.

Always use a clean plate when you help in the kitchen. Don't put cooked foods on plates that held raw meat, poultry, or seafood.

Use hot, soapy water to wash cutting boards, dishes, cooking utensils, and counter tops, especially after they come in contact with raw meat, poultry, eggs, and seafood.

Don't forget to help with the cleanup by using hot, soapy water and paper towels or clean cloths to wipe up kitchen surfaces or spills.

Kids, complete this puzzle to see how much you learned about fighting BAC!



Down

1. Don't let raw _____ drip on other foods.
2. Wash your hands with warm water and _____.
3. Use hot, soapy water and paper towels to wipe up _____ surfaces.
5. Always keep raw meat, seafood, and _____ apart from other foods.

Across

4. Use hot, soapy water to wash _____ utensils.
5. Always use a clean _____.

EXPERIMENT: Proper Patties

Question

How can you tell when a hamburger patty is cooked to a safe temperature?

Materials Needed:

- 1 / 4 lb. of fresh, lean hamburger meat
- Food thermometer
- Access to toaster oven with a broiler and broiler tray (or an electric fry pan)
- Pot holder

Procedure

1. Form a round, thick (1") hamburger patty. Measure and record the temperature of the patty 1 / 4" from the edge. (See chart below.)
2. Now, take the meat's temperature in the very center of the patty.
3. Place the patty on the toaster oven broiling tray.
4. Place the tray in the toaster oven and turn the dial to broil.
5. When the burger looks cooked on one side, have your teacher turn over to brown the other side. Remove it from the toaster oven.
6. Now take the patty's temperature 1 / 4" from the outside edge, and again in the center of the patty. This must be done quickly so the patty doesn't lose its heat! Record your temperature readings on the chart below.
7. If the temperature reading is not 160°F, place the patty back in the oven and then take the meat's temperature every two to three minutes until the temperature is 160°F in the center.

Thermometer Tips:

- Make sure the thermometer goes straight into the meat and does not come out the other side to touch the pan!
- Thermometers should be washed each time you take the temperature of the meat.

Did You Know?

When a piece of meat is "ground up" to make hamburger, the bacteria that was on the surface of the meat can end up on the inside of the burger! That's why it's so important to cook the whole burger to a safe temperature of 160°F!

Tell Your Family ...

Check to see if your family has a food thermometer and uses it!
Let them know what you learned about making meat safe to eat!
Wash your hands after handling raw meat or poultry!

Just COOK It!

His name is BAC (bacteria) and he is on the attack. He is the invisible enemy and he can make you sick. But you have the power to Fight BAC!™ and keep your food safe.

Check out the ways you can Fight BAC!®

- Always cook food to a safe internal temperature.
- Use a food thermometer to check temperatures in food. Clean the thermometer each time it is used.
 - Cook ground beef, including hamburgers, to at least 160 °F.
 - Cook roasts and steaks to at least 145 °F.
 - Cook whole chicken or turkey to 180 °F.
 - Cook leftovers to at least 165 °F.
- Placing the food thermometer in the right place is important. The thermometer should be placed in the thickest part of most foods, away from bone and fat.
- When cooking in a microwave oven, cover, stir, and turn food for even cooking. Use a food thermometer to check the temperature in the food.
- Always cook eggs before eating. Egg yolks and whites should be firm, not runny, when cooked. Don't eat uncooked foods that contain raw eggs, like raw cookie dough or uncooked cookie dough.

Kids, unscramble each of the clue words. Copy the letters in the numbered cells to other cells with the same number to show the secret message.

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EXPERIMENT: Cooling Counts!

Question:

Does the shape of a container affect the rate at which cooling takes place?

Materials Needed:

- Hot water
- Measuring cup
- Shallow container* (1 cup/500 ml minimum)
- Tall container*
- Food thermometer
- Wire or string

*Containers should be made from the same material, like plastic or glass.

Procedure

1. Pour 1 cup hot water into each container.
2. Check the temperature of the water in each container at 5-minute intervals, and record the times and temperatures. (See tip below)

Tip: For tall containers, you may need to use wire or string to lower the thermometer into the water.

My Observations

This is what I observed about the water cooling in each container:

- Shallow: _____
- Tall: _____

Tell Your Family ...

Check to see how leftovers are stored in your home. Encourage family members to use shallow containers.

Did You Know?

Bacteria grow quickest in the "danger zone"—between 40 °F/4 °C and 140 °F/60 °C

Fight BAC!® Secret Code Puzzle

This is BAC for bacteria. He is an invisible bad guy that can make you real sick. The more you know about him . . . the easier it will be to keep him away. Use the BAC!®-detector code to uncover secrets!

BAC!™-detector Code

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
☉	☼	☽	☾	☿	♁	♂	♀	♃	♄	♅	♆	♇	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈

Decipher the Code:

1. BAC is like a funny joke. He loves to be passed along! YOU can stop him in his tracks if:

☉ ☼ ☽ ☾ ☿ ♁ ♂ ♀ ♃ ♄ ♅ ♆ ♇ ♈ ♉ ♊ ♋ ♌ ♍ ♎ ♏ ♐ ♑ ♒ ♓

13
11
6
5
16

2. BAC loves to travel! A cutting board is like his very own bus stop. YOU can keep him from moving around if you...

☉ ☼ ☽ ☾ ☿ ♁ ♂ ♀ ♃ ♄ ♅ ♆ ♇ ♈ ♉ ♊ ♋ ♌ ♍ ♎ ♏ ♐ ♑ ♒ ♓

7
4
20
2
9

☼ ☽ ☾ ☿ ♁ ♂ ♀ ♃ ♄ ♅ ♆ ♇ ♈ ♉ ♊ ♋ ♌ ♍ ♎ ♏ ♐ ♑ ♒ ♓

3. Do you like chilly weather? BAC sure doesn't! YOU can give BAC the cold shoulder if you

☉ ☼ ☽ ☾ ☿ ♁ ♂ ♀ ♃ ♄ ♅ ♆ ♇ ♈ ♉ ♊ ♋ ♌ ♍ ♎ ♏ ♐ ♑ ♒ ♓

22
1
18
14
17
13
40
8

4. A food thermometer can be BAC's worst enemy! YOU can keep him away by using one to

☉ ☼ ☽ ☾ ☿ ♁ ♂ ♀ ♃ ♄ ♅ ♆ ♇ ♈ ♉ ♊ ♋ ♌ ♍ ♎ ♏ ♐ ♑ ♒ ♓

19
10
3
12

Unlock the Four Messages:

Good job! You've gotten the inside scoop on how to Fight BAC!®

Now, take the secret letters that are marked 1 to 22 above, and place them in the numbered spaces below. These are the four things you and your family can do to make sure BAC doesn't try to enter YOUR home!



1 2 3 4 5

6 7 8 9 10 11 12 13

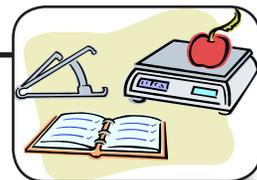


14 15 16 17 18

19 20 21 22







Food Labelling

Roll Call: Do you ever read a food nutritional information label?

Answer to Roll Call:

ACTIVITIES:

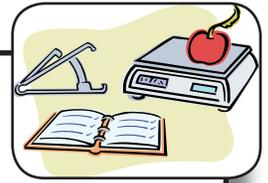
1. Brainstorm with the members and have them try to identify the 13 core nutrients that are on a food label. Write these on a flip chart (calories, fat- saturated and trans, cholesterol, sodium, carbohydrates, fibre, sugar, protein, Vitamin A, Vitamin C, calcium, iron, % daily value).
2. Have members look at a variety of food labels and identify foods that are a good source of protein, calcium, iron, fibre, etc. Make a flip chart with columns for different nutrients, and have members fill in with their food.
3. Have members look at labels and identify products that contain ingredients that are common to all, then identify ingredients that are unique to that product.
4. Choose 2 or 3 food labels and have the members decide if the food is a healthy or unhealthy food choice.
5. Hold a judging activity to compare 4 of the same product, based largely on the information on the nutritional label. Other minor factors could include taste and packaging. Examples of products that could be used are: spaghetti sauces, chocolate chip cookies, frozen pizzas.

ACTIVITIES: In Depth:

1. Have senior members look into a health claim (50% salt free, or cholesterol free, etc) , look at the original food product and the one with the claims on it - compare the two and present results to the club.
2. Have the members look at the CFIA website for the entire labelling guidelines. Summarize the information for the club.
3. Does the label picture any healthy lifestyle? Explain to the group- effect of advertising. Does the colour and wording on the label influence your choice of products. Try designing a label using the information you have gained in this section. Brainstorm the effect of colour on labels. (See below)

Colour may make you feel a certain way. Common associations with colour are as follows:

- white: birth, bride, purity
 - yellow: sunny, bright
 - orange: energetic, intellectual
 - blue: calming, water, stillness, sky
 - red: energy, vibrant
 - purple: creative, royal
 - green: traditional, environmental
 - black: sombre, death
4. Prepare a questionnaire about why members eat a particular cereal or food for breakfast. Include questions relating to thoughts, word associations, and purchase patterns. Summarize the results, and / or brainstorm with the group the reasons they select a particular food (peer pressure, like it, effect of ads, \$, etc.)



5. Have the members bring in partially concealed labels and have the other members try to guess what the product is.
6. Bring in different shapes of containers and see if the members can identify the product.
7. Make a list of all the different types of packaging that are used, and identify the purpose of the package.
8. Create a game "What's My Name". Provide the members with a list of ingredients, on index cards or flip chart. Have them try and guess what the product is, and whether or not it is healthy.

Resources:

Internet:

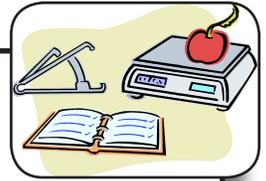
- www.cfia-acia.agr.ca
- www.hc-sc.ac.ca. A toolkit. Ready-to-go presentation and fact sheets.
- Health Canada - http://www.hc-sc.gc.ca/fn-an/label-etiquet/index_e.html. A great interactive nutrition label and quiz. You can also type in www.healthcanada.gc.ca/nutritionlabelling This is an interactive nutrition label program.
- www.dietitians.ca. A wonderful interactive site with fact sheets, a virtual grocery store with food labelling info.
- www.healthyeatingisinstore.ca. A comprehensive resource created by the Canadian Diabetes Association and the Canadian Dietetic Association. It includes Facts sheets, Q&A - all of which can be reproduced without permission. Excellent information and graphics.

Possible Speakers:

- dietitians
- health food inspectors
- public health unit representative

Resources used in this section:

- www.healthyeatingisinstore.ca
- www.hc-sc.gc.ca
- Health Canada. Nutrition Labelling.. Get the Facts. Jan. 2003
- Labelling Literacy. Ontario Agri-Food Education, Inc.



Why is there food labelling?

Food labelling laws were introduced in 2003 to provide consumers with more information about the food they were consuming, so that they could make informed decisions about food selection.

Nutrition labelling is the standardized presentation of the nutrient content of a specified amount of food. It is usually presented in a table form on the label of a prepackaged food, sometimes titled "Nutrition Facts."

The table is always in the same format, listing the same 13 nutrients, the calories, and the % daily allowance so that it is easier for the consumer to read. The table lists the amounts of these nutrients contained in the product / serving. Even if the amount is zero, the nutrient and that amount are listed. The % daily allowance allows one to quickly decide if there is a lot or just a little of a specific nutrient in that food, and to what extent the product helps meet your nutritional needs.

The standard format appears on most packages. If the label size does not have enough space for the complete table, it can be written out in linear form, placed on the inside of the label, or an address and / or toll free number where that information can be obtained.

What about labels on fresh fruit and vegetables?

There are some exceptions to the labelling laws because of the difficulty in providing the labelling under certain conditions, such as in the case of:

- fresh fruit and vegetables
- raw meat and poultry (except when ground), raw fish and seafood
- food products that are prepared from ingredients or from pre-mixes or foods that are produced in small amounts and packaged on the premises (bakery goods)
- products that have insignificant amounts of the 13 core nutrients (coffee beans, tea leaves, herbs and spices, food colours)
- alcoholic beverages
- foods sold at road-side stands, craft shows, flea markets, fairs, farmers' markets and sugar bushes by the same person who made them.

Sometimes exempted foods still have the nutrition facts included on their packaging.

The Canadian Food Inspection Agency (CFIA) enforces federal labelling policies and regulations. Food labels are important to read as they allow you to choose the right foods for healthy eating.

Food Claims

The CFIA has an extensive list of regulations for the food industry concerning the packaging and labelling of food products. Words like "health food", "healthy", "and healthful" should be avoided on food labels. When a claim is made about any nutrient in the food, then detailed information on that nutrient must be somewhere on the package. Be careful when foods are claimed to be "light" or "lite", as these may not be lower in energy (calories), or fat, they may simply be a lighter colour, a lighter texture, or a lighter taste. Sometimes, when something is made lower in fat, the calories are higher, and vice-versa.

Packaging

Packaging foods is done to protect the food, to communicate information to the buyer (and to entice the buyer to purchase this item), and for your convenience.

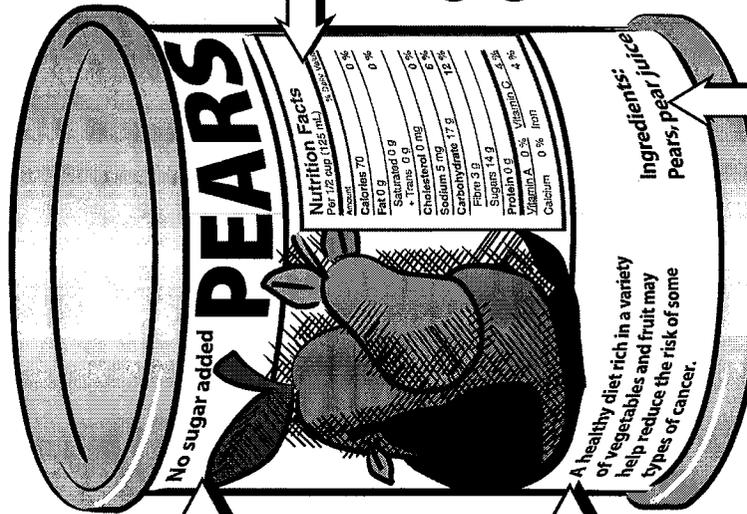
Look at the label

Nutrition information on food labels helps you make informed food choices.

Nutrition claims

There are two types of nutrition claims:

- 1) Nutrient content claims** tell you about one nutrient such as sodium, fat or sugar.
- 2) Health claims** tell you how your diet can affect your health.



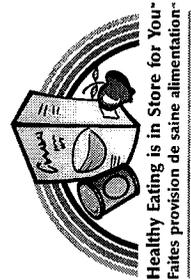
PEARS
No sugar added

Nutrition Facts	
Per 1/2 cup (125 mL)	
Amount	% Daily Value
Calories 70	
Fat 0 g	0 %
Saturated 0 g	0 %
+ Trans 0 g	
Cholesterol 0 mg	0 %
Sodium 5 mg	12 %
Carbohydrate 17 g	6 %
Fibre 3 g	12 %
Sugars 14 g	
Protein 0 g	
Vitamin A 0 %	Vitamin C 4 %
Calcium 0 %	Iron 4 %

Ingredients:
Pears, pear juices

Ingredient list
The ingredient list tells you what ingredients are in a packaged food.

A healthy diet rich in a variety of vegetables and fruit may help reduce the risk of some types of cancer.



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Take 5 to read the facts

- 1) Serving size**
If you eat the serving size shown on the Nutrition Facts table, you will get the amount of Calories and nutrients that are listed. Always compare the serving size on the package to the amount that you eat.
- 2) Calories**
Calories tell you how much energy you get from one serving of a packaged food.
- 3) Percent Daily Value (% Daily Value)**
% Daily Value puts nutrients on a scale from 0% to 100%. This scale tells you if there is a *little* or a *lot* of a nutrient in one serving of a packaged food.
- 4) Get less of these nutrients:**
 - Fat, saturated fat and trans fat
 - Cholesterol
 - Sodium
 Choose packaged foods with a *low* % Daily Value of fat and sodium, especially if you are at risk for heart disease or diabetes.
- 5) Get more of these nutrients:**
 - Carbohydrate
 - Fibre
 - Vitamin A and Vitamin C
 - Calcium
 - Iron
 Choose packaged foods with a *high* % Daily Value of these nutrients. If you have diabetes, watch how much carbohydrate you eat as this will affect your blood glucose levels.

Frequently-asked questions about:

The importance of nutrients

Nutrient	What foods supply us with this nutrient?	How does this nutrient help our bodies?
Fat	<ul style="list-style-type: none"> • Butter, margarine, oils • Baked goods (cookies, donuts, pastries) • Milk, cheese, ice cream, yogurt • Processed meats • Beef, pork, lamb, veal, chicken • Nuts 	<ul style="list-style-type: none"> • Provides Calories or energy • Carries and stores vitamins A, D, E, K • Insulates the body against cold • Cushions the skin, bones and internal organs
Saturated fat	<ul style="list-style-type: none"> • Butter, cheese, whole milk • Sour cream • Ice cream • Lard, shortening • Palm oil, coconut oil • Red meat 	
Trans fat	<ul style="list-style-type: none"> • Hydrogenated fats, oils, deep-fried foods and baked goods 	
Cholesterol	<ul style="list-style-type: none"> • Dairy products • Egg yolks • Meat • Organ meats 	<p>Helps to make:</p> <ul style="list-style-type: none"> • Some hormones • Vitamin D • Cell membranes • Bile salts used to digest foods
Sodium	<p>Sodium or salt occurs naturally in many foods but it is also added to some processed foods such as bacon, soups, and potato chips.</p>	<ul style="list-style-type: none"> • Balances body fluids • Helps transmit electrical signals through nerves



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Faites provision de saine alimentation

FAQ Sheet #3 - Page 1

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Frequently-asked questions about:

The importance of nutrients

Nutrient	What foods supply us with this nutrient?	How does this nutrient help our bodies?
Carbohydrate	<ul style="list-style-type: none"> • Breads • Pastas • Vegetables • Fruit • Honey • Sugar • Milk 	Provides Calories or energy ready for your muscles and your brain to use
Fibre	<ul style="list-style-type: none"> • Whole-grain breads, cereals and pastas • Vegetables and fruit • Legumes 	<ul style="list-style-type: none"> • Aids in bowel regularity • Reduces risk of colon cancer • Lowers blood cholesterol
Sugars	<p>Foods with naturally occurring sugars:</p> <ul style="list-style-type: none"> • Milk • Fruits • Vegetables <p>Foods with added sugars:</p> <ul style="list-style-type: none"> • Sweetened juices • Sweetened soft drinks • Candy 	Provides Calories or energy ready for your muscles and your brain to use
Protein	<ul style="list-style-type: none"> • Milk, cheese, yogurt • Eggs • Meat, poultry, fish • Nuts, peanut butter • Baked beans 	Builds and repairs body tissues
Vitamin A	<ul style="list-style-type: none"> • Carrots • Squash • Dark green leafy vegetables 	<ul style="list-style-type: none"> • Maintains healthy skin • Provides good night vision
Vitamin C	<ul style="list-style-type: none"> • Citrus fruits • Strawberries 	<ul style="list-style-type: none"> • Builds and maintains connective tissues • Heals wounds • Fights infections
Calcium	<ul style="list-style-type: none"> • Milk • Cheese • Yogurt 	Builds healthy bones and teeth
Iron	<ul style="list-style-type: none"> • Red meat • Raisins • Whole-grain breads and cereals 	Produces red blood cells that carry oxygen throughout the body



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Faites provision de saine alimentation

FAQ Sheet #3 - Page 2

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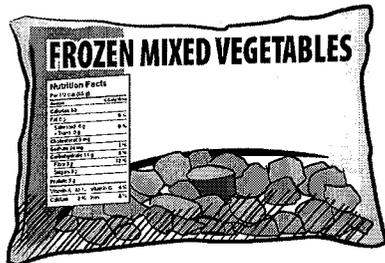
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Using percent Daily Value (% Daily Value)

Use % Daily Value to find out if there is a little or a lot of a nutrient in one serving of a packaged food.

What is % Daily Value?

% Daily Value puts nutrients on a scale from 0% to 100%. This scale tells you if there is a *little* or a *lot* of a nutrient in one serving of a packaged food.

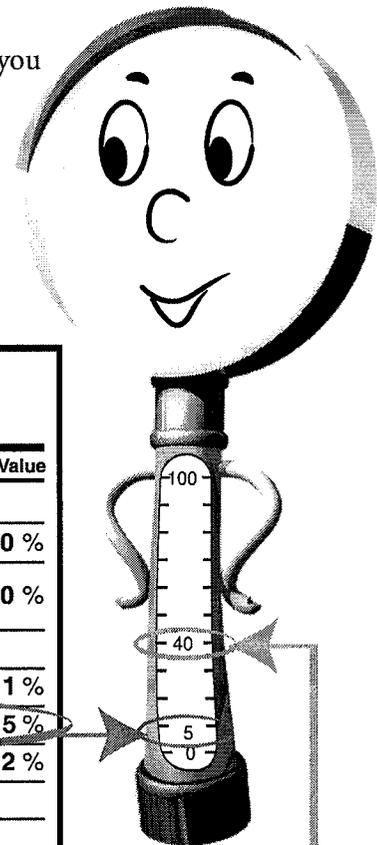


What is a *little* and what is a *lot*?

Let's look at the % Daily Value on the Nutrition Facts table for this package of vegetables:

- One serving has 5% Daily Value for carbohydrate. This is a *little* because it is *low* on the scale.
- One serving has 40% Daily Value for Vitamin A. This is a *lot* because it is *high* on the scale.

Nutrition Facts	
Per 1/2 cup (85 g)	
Amount	% Daily Value
Calories 60	
Fat 0 g	0 %
Saturated 0 g	0 %
+ Trans 0 g	
Cholesterol 0 mg	
Sodium 35 mg	1 %
Carbohydrate 14 g	5 %
Fibre 3 g	12 %
Sugars 0 g	
Protein 3 g	
Vitamin A 40 %	Vitamin C 6 %
Calcium 2 %	Iron 8 %



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Make healthy food choices by using % Daily Value.

Fact Sheet # 4

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Serving up nutrition facts

Why is the serving size on packaged foods important?

The serving size tells you how much food you need to eat to get the amount of Calories and nutrients shown on the Nutrition Facts table.

How is the serving size shown on the Nutrition Facts table?

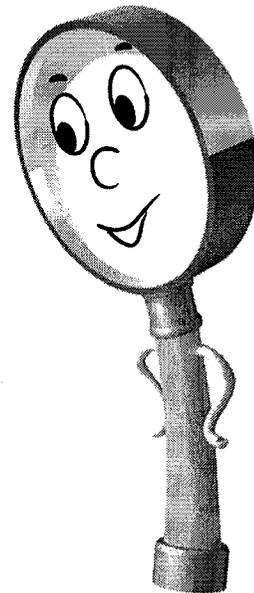
There are two types of information that tell you about the serving size:

- **Household measurements**
Look for familiar words like *cup* and *pieces*.
- **Metric measurements**
Look for metric measurements like *mL (millilitres)* and *g (grams)*.

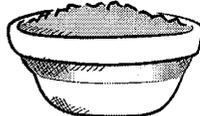
What if you eat less? What if you eat more?

If you eat *less* than the serving size shown on the Nutrition Facts table you will get *less* of the Calories and nutrients listed. If you eat *more* than the serving size shown, you will get *more* of the Calories and nutrients listed.

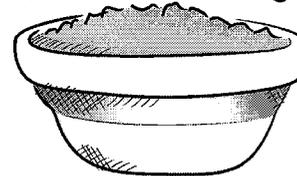
In this example, if you eat a double serving of this cereal, you will get double the Calories and double of all the nutrients, such as fibre.



Single serving

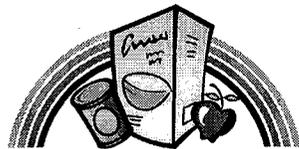


Double serving



Nutrition Facts	
Per 1 cup (55 g)	
Amount	% Daily Value
Calories 220	
Fat 2 g	3 %
Saturated 0 g	0 %
+ Trans 0 g	
Cholesterol 0 mg	
Sodium 270 mg	11 %
Carbohydrate 44 g	15 %
Fibre 8 g	32 %
Sugars 16 g	
Protein 6 g	
Vitamin A 0 %	Vitamin C 0 %
Calcium 4 %	Iron 40 %

Nutrition Facts	
Per 2 cups (110 g)	
Calories 440	
	64 %



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Faites provision de saine alimentation

Fact Sheet # 5

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All about carbohydrate

For people with diabetes, carbohydrate is one of the most important nutrients on the Nutrition Facts table.

How does carbohydrate affect your body?

The carbohydrate you eat changes to glucose (sugar) in your body to provide you with energy. If you are affected by diabetes, you need to watch how much carbohydrate you eat in order to control the amount of glucose in your blood.

What foods supply you with carbohydrate?

Carbohydrate comes from cereals, breads, rice, pasta, other grain products, legumes, some vegetables, fruit, some dairy products and refined sugars.

What are the different types of carbohydrate?

- Starches (bread, pasta, potatoes)
- Sugars (naturally occurring in fruit, vegetables and milk as well as refined sugars like white sugar, brown sugar, honey or molasses)
- Fibre (whole grain foods, vegetables and fruit)

Does the type of carbohydrate you eat affect your blood glucose levels?

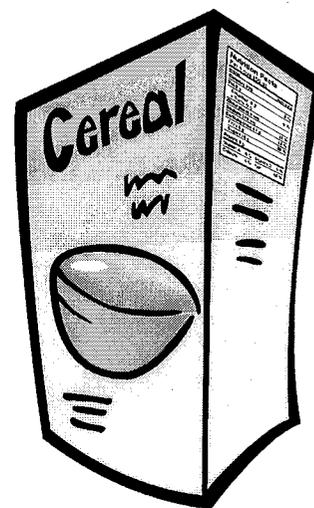
Yes! For people with diabetes, the type of carbohydrate is one factor in controlling blood glucose. Except for fibre, the different types of carbohydrate you eat turn into glucose in the blood. Eating high fibre foods may lower your blood glucose and will help you feel full.

Also important in controlling blood glucose is the total amount of carbohydrate eaten at one sitting. Talk with a registered dietitian about the amount of carbohydrate that is right for you.

Is it important to spread the carbohydrate that you eat evenly throughout the day?

Dividing your carbohydrate evenly into meals and snacks throughout the day will help your body have better control over your blood glucose levels. Your blood glucose level will also rise more slowly when you eat carbohydrate as part of a complete meal.

Nutrition Facts	
Per 1 cup (55 g)	
Amount	% Daily Value
Calories 220	
Fat 2 g	3 %
Saturated 0 g + Trans 0 g	0 %
Cholesterol 0 mg	
Sodium 270 mg	11 %
Carbohydrate 44 g	15 %
Fibre 8 g	32 %
Sugars 16 g	
Protein 6 g	
Vitamin A 0 %	Vitamin C 0 %
Calcium 4 %	Iron 40 %



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Faites provision de saine alimentation

Fact Sheet # 6

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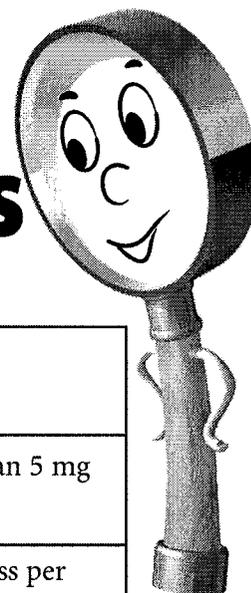
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Frequently-asked questions about:

Nutrient content claims



Words used in nutrient content claims	What the words mean	Examples
Free	A nutritionally insignificant amount	Sodium free (less than 5 mg sodium per serving)
Low	Always associated with a very small amount of a nutrient	Low fat (3 g fat or less per serving)
Reduced	At least 25% less of a nutrient compared with a similar product	Reduced in Calories (At least 25% less energy than the food to which it is compared)
Source	Always associated with a significant amount	Source of fibre (2 g fibre or more per serving)
Light	If it is referring to a specific nutrient, it is only allowed on foods that are either reduced in fat or reduced in energy (Calories).	Light in fat Light in Calories
	"Light" can also be used to describe a feature of the food such as "light in colour."	Light in colour (An explanation on the label will explain what makes the food light, even if it is light in colour.)



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Faites provision de saine alimentation

FAQ Sheet #1

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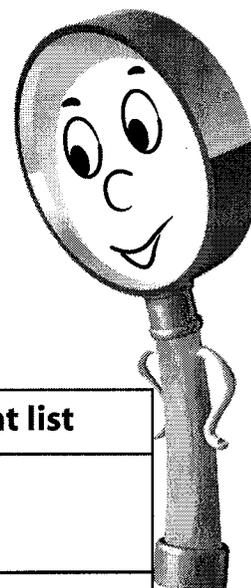
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Frequently-asked questions about:

Words to watch for

What other words will you see on the ingredient list for fat, saturated fat, sodium and sugar?



Nutrient	Words to watch for on the ingredient list
Fat	<ul style="list-style-type: none"> • Glycerides • Glycerol • Esters • Shortening • Oil
Saturated fat	<ul style="list-style-type: none"> • Tallow or beef fat, lard, suet, chicken fat, bacon fat • Butter • Coconut or coconut oil • Hydrogenated fats and oils • Cocoa butter • Palm or palm kernel oil • Powdered whole milk solids
Trans fat	<ul style="list-style-type: none"> • Hydrogenated fats and oils
Sodium (salt)	<ul style="list-style-type: none"> • Salt • Monosodium glutamate • Baking powder, baking soda • Disodium phosphate • Sodium bisulfate • Brine • Garlic salt, onion salt, celery salt • Soy sauce • Sodium alginate, sodium benzoate, sodium hydroxide, sodium propionate
Sugars	<ul style="list-style-type: none"> • Fructose, sucrose, maltose, lactose, honey • Liquid sugar, invert sugar, liquid invert sugar, syrup • Galactose, dextrose, dextrin, corn syrup solids, molasses, raisin syrup <p style="text-align: center;">Hint: Watch for words ending in "ose."</p>
Sugar alcohols	<ul style="list-style-type: none"> • Isomalt (also known as Palatinit) • Lactitol • Mannitol • Maltitol • Sorbitol • Xylitol <p style="text-align: center;">Hint: Watch for words ending in "ol."</p>



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Faites provision de saine alimentation

FAQ Sheet #2

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Frequently-asked questions about:

"Sugar" claims



An information sheet for people with diabetes

There are many nutrient content claims about sugars on food labels. Here is what they mean...

Type of claim	Conditions	Claims you will see on the label
Free of sugars	Contains less than 0.5 g of sugar and less than 5 Calories per serving	<ul style="list-style-type: none"> • Sugar-free • Free of sugar • Without sugar • Contains no sugar • No sugar • Zero sugar • 0 sugar • Sugarless
Reduced in sugars Lower in sugars	Modified to contain at least 25% less sugars, totalling at least 5 g less per serving	<ul style="list-style-type: none"> • Reduced sugar • Sugar-reduced • Reduced in sugar • Less sugar • Lower sugar • Lower in sugar
No added sugars	Contains no added sugars, no ingredients containing added sugars or ingredients that contain sugars that substitute for added sugars	<ul style="list-style-type: none"> • No sugar added • No added sugar • Without added sugar

What does the word "light" mean?

"Light" is a claim that is only allowed on foods that are "reduced in fat" or "reduced in Calories."

"Light" can also be used to describe a feature of the food such as "light in colour."

If the word "light" is used on a food label, it must have a statement that explains what characteristic makes the food "light." However, there is one exception to this rule relating to sugar. "Light maple syrup" means "light" in colour and does not need to have a statement with it. In this case, "light" does **not** mean low in sugar or Calories.



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Faites provision de saine alimentation

FAQ Sheet #4

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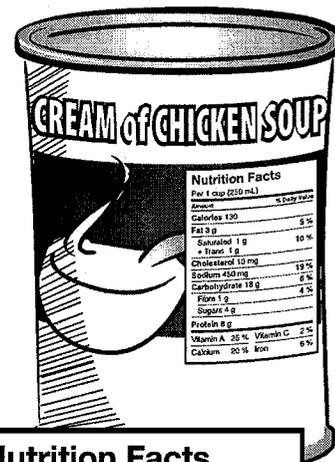
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Figure out the facts

What does the Nutrition Facts table tell you about this packaged food?

1. What is the serving size? _____
2. How many Calories are in one serving? _____
3. How many grams of fat are in one serving? _____
4. Circle one nutrient on the Nutrition Facts table that is important to you. Circle the % Daily Value for this nutrient.
5. Decide if you want to get *less* or *more* of the nutrient you have circled:
 - Get less of this nutrient
(Hint: Choose packaged foods with a *low* % Daily Value.)
 - Get more of this nutrient
(Hint: Choose packaged foods with a *high* % Daily Value.)
6. Is this food a good choice for you?
 - Yes - Why? _____
 - No - Why? _____



Nutrition Facts	
Per 1 cup (250 mL)	
Amount	% Daily Value
Calories 130	
Fat 3 g	5 %
Saturated 1 g + Trans 1 g	10 %
Cholesterol 10 mg	
Sodium 450 mg	19 %
Carbohydrate 18 g	6 %
Fibre 1 g	4 %
Sugars 4 g	
Protein 8 g	
Vitamin A 25 %	Vitamin C 2 %
Calcium 20 %	Iron 6 %



Healthy Eating is in Store for You
Faites provision de saine alimentation

Activity Sheet #1

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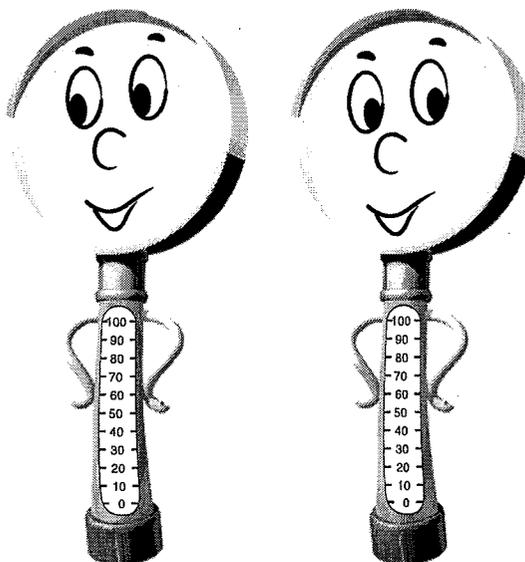
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Compare foods using percent Daily Value (% Daily Value)

Use % Daily Value to decide which of these two yogurts is the better choice for you.



Nutrition Facts	
Per 3/4 cup (175 g)	
Amount	% Daily Value
Calories 110	
Fat 3 g	5 %
Saturated 2 g + Trans 0 g	10 %
Cholesterol 10 mg	
Sodium 125 mg	5 %
Carbohydrate 12 g	4 %
Fibre 0 g	0 %
Sugars 8 g	
Protein 9 g	
Vitamin A 4 %	Vitamin C 2 %
Calcium 30 %	Iron 0 %



Nutrition Facts	
Per 3/4 cup (175 g)	
Amount	% Daily Value
Calories 170	
Fat 10 g	15 %
Saturated 6 g + Trans 1 g	35 %
Cholesterol 30 mg	
Sodium 100 mg	4 %
Carbohydrate 13 g	4 %
Fibre 0 g	0 %
Sugars 6 g	
Protein 7 g	
Vitamin A 10 %	Vitamin C 2 %
Calcium 25 %	Iron 0 %

1. Circle the % Daily Value for fat on both Nutrition Facts tables shown above.
2. Shade in the % Daily Value for fat on each % Daily Value scale shown above.
3. What do you want to do with the fat?

- I want to get *less* of this nutrient. (Hint: Choose packaged foods with a *low* % Daily Value.)
- I want to get *more* of this nutrient. (Hint: Choose packaged foods with a *high* % Daily Value.)

4. Which yogurt is the better choice for you?

Yogurt A - Why? _____

Yogurt B - Why? _____



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Faites provision de saine alimentation

Activity Sheet #3

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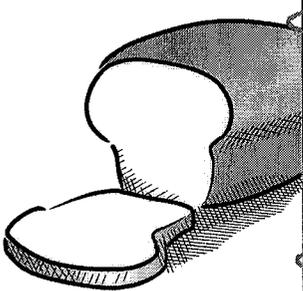
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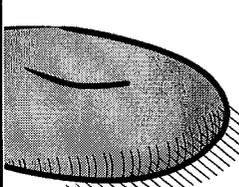
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Compare the facts for carbohydrate

A packaged food activity for people with diabetes



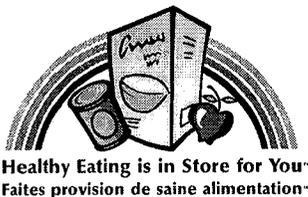
Nutrition Facts	
Per slice (28 g)	
Amount	% Daily Value
Calories 70	
Fat 1 g	2 %
Saturated 0.2 g + Trans 0 g	1 %
Cholesterol 0 mg	
Sodium 150 mg	6 %
Carbohydrate 13 g	4 %
Fibre 2 g	8 %
Sugars 1 g	
Protein 3 g	
Vitamin A 0 %	Vitamin C 0 %
Calcium 2 %	Iron 6 %



Nutrition Facts	
Per bagel (89 g)	
Amount	% Daily Value
Calories 250	
Fat 3 g	5 %
Saturated 0.3 g + Trans 0.3 g	3 %
Cholesterol 0 mg	
Sodium 470 mg	20 %
Carbohydrate 47 g	16 %
Fibre 3 g	12 %
Sugars 3 g	
Protein 8 g	
Vitamin A 0 %	Vitamin C 0 %
Calcium 2 %	Iron 20 %

- Look at the Nutrition Facts table for bread.
- In the "Bread" column in the chart below:
 - Write in the serving size shown on the package.
 - Write in the serving size you would eat.
- Figure out how many grams of carbohydrate there are in the serving size that you would eat. Fill in this number on the chart. (Hint: If you are eating half a serving, divide by 2. If you are eating a double serving, multiply by 2.)
- Look at the Nutrition Facts table for the bagel. Repeat steps 2 and 3 to fill in the "Bagel" column in the chart below.

Packaged food	Bread	Bagel
Serving size on package	_____ slice _____ (weight)	_____ bagel _____ (weight)
Serving size you would eat	_____ slice(s)	_____ bagel(s)
Grams of carbohydrate in the serving size you would eat	_____ g	_____ g



- Does the serving size you would eat have the right amount of carbohydrate for you to control your blood glucose level? Do you need to make any changes to the serving size you would eat?

Activity Sheet #7

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What is in your Grocery Cart?

Roll Call: What is your favourite area of the grocery store, and why?

Answer to Roll Call:

ACTIVITIES

1. Bring several grocery flyers and have the members identify any common features.
2. Using the flyers, identify which products are from Canada.
3. Classify the specials according to Canada's Food Guide. Ask the members, 'can you get a balanced diet from the weekly specials'? Why or why not?
4. Compare the "special" prices with the price for that item at other stores or in other flyers. Are "specials" really the best price?
5. Have the members select 3 advertisements and identify the advertising technique that was used. Alternatively, work as a group and examine several advertisements and decide what techniques were used.
6. Have the members create an ad for 4-H using the above techniques.
7. Discuss the effectiveness of advertising. What ads have influenced the members to purchase an item, a movie, clothing, etc.?
8. Discuss how advertising affects the food choices of different age groups: preschoolers watching cartoons on television, teens watching commercials during prime time television, parents buying to please a child's wishes, etc. Perhaps a questionnaire or graph could be made to tabulate the results. This could be a good thing to publish in your local paper.
9. What influences the member's food choices? Record results on a flipchart and discuss the results.
10. Select the member's favourite food and create an ad for it. Create a character for it that might influence younger children to want this food. Create a jingle or logo for this food. Take a grocery store tour and note the above. Also take that store's flyer with you.
11. Visit your local grocery store and identify the various techniques that are used to attract the consumer's attention.
12. Take the members on a grocery store tour - follow the guide on the following pages.

ACTIVITIES - In Depth

1. Have Members do a survey of their peers, family, or other shoppers as to what influences their shopping decisions.
2. Have senior members investigate 4 different grocery stores, (these can be a mixture of large and smaller stores) and judge them based on criteria such as, appearance, cleanliness, price, customer service, products available, and traffic flow within the store. Make sure they come to the next meeting prepared to justify their ranking, and present their findings to the club.



Grocery Store Tour

This can promote healthy eating by looking at the various sections in the grocery store and discussing Canada's Food Guide recommendations. The main points to emphasize are:

- consume a nutritionally adequate diet as outlined in Canada's Food Guide. Emphasize variety and moderation in portion sizes
- consume generous amounts of whole grains and legumes, fruits and vegetables, choosing different colours often
- consume only moderate amounts of fats and fatty foods
- select foods with minimal processing and refinement
- achieve and maintain a healthy weight
- consume generous amounts of water

Possible resource: a dietitian or nutritionist may be asked to conduct this tour.

Following will be a brief summary of the points that may be covered in the different sections.

Milk

- discuss serving size (250mL is 1 serving)
- dairy products are a main source of calcium
- dairy products are a major source of saturated fats. Discuss lowering saturated fat consumption due to the risk of cardiovascular disease. Substitute 2% or skim milk for consumers over 2 years of age.
- discuss nutrients found in milk: riboflavin is light sensitive - therefore milk stored in clear packaging should not be exposed to the sunlight. Milk is usually fortified with Vitamin A and D (check labels).
- cheese - serving size is 45g for 1 serving. Have members select different cheeses and read the labels noting the different milk fat (%MF) or butterfat (%BF) on the label. Check for lower MF cheeses that may be desirable to use.
- discuss processed cheese and cheese foods. Look at the nutrient content. Notice that processed cheese has a high moisture content, therefore the nutrient density of the product is lowered. Processed cheeses are also higher in sodium than regular cheeses.
- introduce members to quark (natural fresh cheese in a spreadable form), ricotta cheese (can be used as a replacement for cream cheese in recipes).
- unlike milk, cheese and yogurts are not fortified with vitamin A and D
- "Lactaid" milk and other brand names are available that are lactose free for people who are lactose intolerant.



Yogurt

- have members select different varieties and check the %MF or %BF.
- promote skim milk yogurts.
- have members look at the ingredient list. Point out that anything ending in "ose" is a sugar.
- some yogurt contains cultures, as does "acidophilus" milk that helps re-establish healthy intestinal flora after antibiotic therapy.

Eggs

- ask members how many eggs they consume in a week
- are brown eggs different from white eggs?
- ask them to think about what size eggs recipes usually call for
- talk about egg substitutes
- discuss how to choose your eggs - they should be clean and un-cracked
- if you can find egg packaging with nutritional information, have members examine it and discuss how they can be used as a meat alternative
- discuss the different kinds of fats. All fats are high in calories.
- suggest the use of polyunsaturated (corn, safflower, sunflower oils), or monounsaturated oils (olive, peanut, canola) versus saturated fats (butter, lard, coconut oil, palm oil).
- "light" may only refer to the colour of the oil, not the calorie /energy level.
- "lite" mayonnaise and reduced calorie salad dressings do contain less calories / energy.

Meats

- emphasize that lean meat is part of a healthy diet - point out the lean meats in this section, and meats to avoid.
- discuss cooking methods that reduce fat (baking, broiling, barbequing, stewing) rather than frying.
- discuss nutrients found in meat. Red meat is a good source of iron, which chicken will lack.
- look at the "cured" meats and read the labels. Note "sodium nitrite" - which adds not only sodium, but in addition, nitrates are also associated with the development of cancer.
- Vitamin C can prevent the formation of these carcinogens, so a high vitamin C source should be consumed when cured meats are consumed. Cured meats are usually high in fat.



Fish

- discuss the benefits of eating fish in helping prevent heart disease.
- fish and shellfish are the best sources of omega-3 fatty acids. The highest fat fishes include sardines, salmon, mackerel, herring, anchovies, albacore tuna and rainbow trout - these have the highest levels of omega-3 fatty acid. The lowest fat level fish include cod, flounder, haddock, monkfish, sea bass, bass and whiting - these have the lowest level of omega-3 fatty acids.

Meat Alternatives

- show members the different types of legumes. Ask if anyone knows how to cook them.
- explain how to cook dried beans, peas and lentils and perhaps try preparing some in a recipe.
- discuss the nutritional benefits of legumes: low in fat, high in soluble fibre, which lowers cholesterol, and a good source of protein.
- tofu - (soybean curd) is the only complete protein source from a vegetable protein.
- discuss how to use tofu - it is a chameleon and can be used in milkshakes, pies, puddings, in lasagna, chili, desserts, etc. try a recipe using tofu

Breads / Cereals

- discuss the use of whole grains and the importance of preventing cancer, heart disease, weight control and normal bowel function. Most people require 30g fibre a day and most consume 15g per day.
- preservatives can be useful in bread. Calcium propionate acts to prevent mold developing as well as being a source of calcium.
- have members look at labels and determine the amount of sugar and fibre per serving. A good source of fibre is 3-5 g dietary fibre per serving. Check different cereals to find a cereal that is a good source of fibre.
- hint: perhaps add a high fibre cereal to a low fibre one to increase its value (i.e. All Bran added to Cheerios).
- crackers- have members look at different crackers for fat and fibre /whole grain content. Ingredients are listed in order of contribution by weight.
- have members find crackers that do not contain fat (crisp breads).
- have members figure out how many crackers equal a serving of bread, in calories and fibre.



Fruits and Vegetables

- review the required servings per day. 5-10 servings per day.
- ask members which fruits are high in Vitamin C (citrus- oranges, grapefruit, strawberries).
- ask members to guess which vegetables belong to the brassica family (cabbage) - they lower the risk of certain cancers.
- discuss the best way to prepare vegetables- little water for a short period of time so that water soluble vitamins are not lost. Cook vegetables with the skin on (retains vitamin C).
- enjoy fruits and vegetables raw.
- talk about in and out-of season produce and costs.
- compare the costs and nutrient value of fresh, canned and frozen fruits and vegetables.
- discuss the benefits of obtaining vitamins and minerals from food versus supplements (also get additional nutrients, and nutrients absorbed more efficiently).

Supplemental Activity:

Have members select 2 carts of groceries - 1 with processed everything (frozen french fries, canned vegetables, portioned meat, prepackaged salad, etc) and another group choosing foods in the natural state (raw carrots, lettuce, cabbage, a pound of meat, a bag of potatoes). Run each through the cash register and compare the costs. If possible, donate the purchases to a local food bank.

Resources:

Abraham, E. *What's in Your Grocery Cart?* Statistics Canada, catalogue no. 96-325-XPB

"Going to the grocery without being taken to the cleaners". Adapted from: *Frugal Living for Dummies*. www.dummies.com/WileyCDA/DummiesArticle/id-1703.subcat-PERSONAL.html

Kalina, L., O'Donnell, and C. Thibault. *The Supermarket Nutrition Education Kit*. 1989.

Sanders, J.M. *Grocery shopping with a Wireless PDA*. Research Horizons 27

"Save money when grocery shopping." <http://ezinearticles.com>

Ontario Agri-Food Education, Inc. *The Supermarket*.



The Supermarket

History of the Supermarket

The local grocery store has existed in Europe and North America for many years. It may have been a corner store that people visited daily for their food needs, or it could have been in a nearby town where they shopped once a week. The "superstore" as we know it today is a product of the 20th century.

In the 1920's shop owners experimented with a self-serve concept in stores where consumers would select the items they wanted from the shelves. However, at this time, foods were sold in bulk so clerks were needed to measure amounts, wrap the purchases in brown paper and tally the bill. This would take time and other customers would have to wait in line. There were no prepackaged goods as we know them today. By 1925, customers would select the items they wanted and take them to a cashier to be paid for. Items were displayed to attract the consumer's attention. This was a less customer based system but was faster for the consumer.

In 1925, the National Grocers Company Limited was established by George Weston which would purchase, warehouse and deliver foods to grocery stores, avoiding the duplication of these tasks.

Store sizes and needs varied depending on where the store was located. So stores were put in a category: large, medium, or small and needs were determined by the category. These categories also helped to plan for advertising, market information and store planning.

Manufacturers put their goods in boxes, tins, and bags. Refrigerator units were now required to hold cold and/or frozen items.



By the 1930's the grocery stores were about 2500 square feet (the size of our convenience stores). By the 1940's and 1950's, the stores had grown to 10 000 square feet. Do you think most of the grocery stores looked the same?

Today there are few independent grocers existing. The chains have bought out most of the independents and often pre-purchase sites for future grocery stores. Some grocery store chains are the main store in a shopping mall.

Today you can select the foods or items that you want; you can ring them through a self-serve checkout aisle for payment, pay with cash or credit/debit card and package them yourself. However, the grocer still wants to provide service to the customer by making shopping more convenient and efficient.

Scanning of the product at the cash register not only tallies your purchases; it is also an automatic method of re-ordering a product. This reduces paper re-ordering and ensures that the store shelves will always be filled. Hydroponics has allowed the grocers to offer fresh fruits and vegetables beyond the traditional growing seasons and harvest times.

The future seems to be presenting "one stop shopping" where a consumer can not only get groceries, but also flowers, photo development, personal care items, gardening equipment, travel, financial services, clothing and health foods. Some even have fitness centres and a snack area becoming the focal point of a community. Some have classrooms where meetings and consumer related topics are offered. At the Georgia Institute of Technology they have been testing the use of personal digital assistants (PDA) that enable consumers to interact with the store's computer to locate items and learn about special promotions.





Shoppers found that this device made shopping more efficient and easier to find items, and they avoided impulse buying.

How does the grocery store today attract the consumer's attention?

Advertising "specials" is the main way to attract consumer's interest. Check out the first page of a grocery store flyer. The first page of the flyer is very important as it advertises "specials" that every consumer would choose each week, e.g. lettuce, laundry detergent, cookies. Inside the flyer there are usually more pages of "specials" (dairy, produce, meat and fish, and non-food items) that often include seasonal specials (such as a springtime colouring contest). The flyer must be attractive to different ages, different cultures and different economic groups.

Advertising



The grocery stores use different methods of advertising, including flyers, magazines, web sites, television, radio, billboards, T-shirts, and newspapers.

Grocery stores also use different techniques to attract the consumer. Why do you and your family members choose one grocery store over another? Owners consider cleanliness, lighting, convenience, selection, price, freshness, location, services offered, specials, and friendliness. Habit also plays a role in why we shop at a particular store.

Customers can be classified into 3 categories:

1. "Cherry Picker" - the consumer who comes for the weekly "specials." They may visit many stores in one week - always purchasing the "specials."
2. "Transient Customer" - this is the consumer who purchases what they need that day. Perhaps they were at work a bit later than expected and so stop on the way home to pick up something for supper.
3. "Loyal Customer" - this is the customer who always shops at that store on a weekly basis.

Advertising Techniques

There are many techniques used in the advertising world:

- Testimonial: a well known person endorses a product.
- Transfer: transfer the qualities of one idea to those of another.
- Plain Folk: talking down to people to appeal to them, you are one of them.
- Bandwagon: everyone is doing this.
- Snob Appeal: the elite purchase this, you want a desirable lifestyle.
- Facts & Figures: figures and statistics prove a point.
- Hidden Fears: appealing to a person's fears and insecurities.
- Repetition: repeat a point, and fix the image in a person's mind.
- Magic Ingredient: implying that a product is scientifically proven.
- Weasel Words: use vague qualifiers or disclaimers to mislead the consumer into thinking the product is better than it really is.



Grocery Store Savvy

Grocery stores employ companies who specialize in store layouts and techniques which encourage consumers to spend more money when they are in the store. Some things that are used are:

- re-organizing the aisles. If you usually find an item in a certain aisle and it is moved, you will have to look at other items in other aisles until you find the desired item. On the way, you may have added additional items to your cart.
- the store often has a bakery that produces wonderful smells of fresh baking bread and desserts. If the consumer is hungry, the smell entices them to purchase more food.

Hint: never go shopping when you are hungry! Shop after a meal, or at least have a glass or two of water before you shop.

- stores are designed to make you walk for the staple items you want and therefore spend more time in the store and hopefully spend more money. Did you notice that the milk, bread, eggs and produce are always on the outer walls of the store, or in the far corner?

Hint: make a list of the items you need and stick to it, make a circle around the outside of the store for the items you really need.

- manufacturers of brand named items pay large fees to the grocery store to shelve their products in ideal locations. This ideal location is at eye level for adults, or at child level for cereals aimed at children,

Hint: If you bend down, a similar product will be below or above this brand named product and will be cheaper.

- "Loss Leader" - grocery stores will advertise certain items at rock bottom prices. These may be sold at the stores' lowest price, or even below their wholesale price to entice you to shop there for other items as well. Supermarkets usually have more loss leaders than do convenience stores. All "sale" or "bargain" items may not really be on sale. Stores usually reserve the ends of aisles for these "sale" items. Do check similar products on the shelves, to make sure it is a sale. Some stores may have a "match the competitor's price" policy which can save the consumer additional money. True loss leaders usually have a limit on the quantity you can buy - but you can make more than 1 trip to that store.



- products are packaged in bright colours as red and yellow to attract your attention. The colour of the package does not reflect if it is a good product, or a good price.
- bulk versus small packaging? Most people think that a large package is cheaper than a smaller one. This may not always be the case.

Hint: check the "cost per unit", that is displayed below the product to see if it is really a good price.

- check-out layout: this is a very tempting section to pick up some gum, or a magazine while you are waiting in line to pay for your groceries.

Hint: shop at "off-peak" times to avoid those line-ups- avoid nights and week-ends. Late night (in 24 hour stores) and early mornings usually makes shopping easier.





Recipe Modification

Roll Call: Have you ever run out of an ingredient in a recipe, and substituted another?

Answer to Roll Call

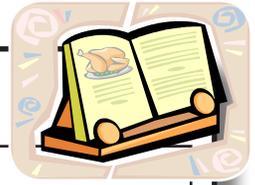
ACTIVITIES

1. Have members suggest modifications for the following recipes - then compare with the modified ingredients shown below. Discuss why the substitutions are healthier. If time permits, make each version of the recipes and compare them.

<i>Basic Muffin Recipe</i>	<i>Modified Recipe</i>
500mL (2 cups) flour.	Could be 1/2 all purpose, 1/2 whole grain
15mL (1 tbsp) baking powder	
75mL (1/4 cup) sugar	30mL (2 tbsp) sugar
5mL (1 tsp) salt	
1 egg, beaten	2 egg whites and 15mL (1 tbsp) oil or water
250mL (1 cup) homo milk	250mL (1 cup) 2% or skim milk
75mL (1/4 cup) oil	30mL (2 tbsp) oil or applesauce

Heat oven to 400F. Stir all ingredients together in a mixing bowl. Mix egg, milk and oil. Make a well in the centre of the dry ingredients and pour in egg mixture all at once. Stir lightly and quickly just until moist. Batter should be lumpy. Spoon into greased muffin pans filling 2/3 full. Bake for 15-20 minutes until golden brown. Makes 12 muffins

Grease muffin tins with non-stick spray or use non-stick pans, or paper muffin cups.



Lasagna

Original Recipe	Modified Recipe
75mL (1/3 cup) olive oil	30mL (2 tbsp) vegetable oil
375mL (½ cup) diced onion	625mL (2 ½ cup) diced onion
2 minced garlic cloves	3 minced garlic cloves
750g (1 ½ lb) ground chuck	2 medium green peppers, diced
5mL (1 tsp) salt	1 carrot, peeled and diced
2 cans (14oz / 398mL) tomato sauce	1 celery stalk, diced
1 can (28oz. / 796mL) Italian style peeled tomatoes	750g (1 ½ lb) sliced mushrooms
1 can (5 ½ oz. 156mL) tomato paste	375g (3/4 lb) ground round
15mL (1 tbsp) dried oregano	1 mL (1/4tsp) black pepper
25mL (2 tbsp) olive oil	500mL (2 cups) chicken stock
500g (1 lb) lasagna noodles	2 cans (5 1/2oz/156mL) Italian style tomatoes, peeled
500g (1 lb) ricotta cheese	3 ripe diced tomatoes
350g (2 ¼ cup) parmesan cheese	2 cans (5 1/2oz. 156mL) tomato paste
250g (1/2 lb) shredded mozzarella cheese	10mL (2 tsp) dried basil
	10mL (2tsp) dried oregano
	3 drops red pepper sauce
	50mL (1/4 cup) minced fresh parsley
	500g (1 lb) lasagna noodles
	250g (1 cup) skim milk shredded mozzarella cheese
	250g (1 lb) 2% cottage cheese
	250mL (1 cup) parmesan cheese

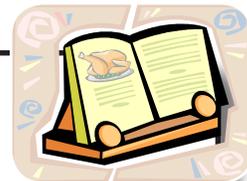
Cook vegetables until tender. Brown meat and pour off excess fat. Add tomatoes and tomato sauce and/or paste. Cook noodles in boiling water. Mix cheeses.

In a greased 3.5L (13x9 inch) pan, layer sauce, then lasagna noodles, cheese, sauce, noodles, etc. bake at 350F for 25 minutes. Serves 16.



<http://www.pdphoto.org>





There are many ways and techniques that you can use to change a recipe- making it healthier.

- 1) You can change a cooking method: broil, roast, barbecue, poach, steam, bake rather than frying. You can make a stew, let it cool and skim off the fat. Baking can often replace frying for french fries. Cook using a non-stick frying pan or a non-stick spray
- 2) You can change an ingredient:
 - by decreasing the amount used. Often you can reduce the sugar by 1/3 without changing the product
- 3) Leave out the ingredient. Some ingredients are for appearance, habit or tradition. e.g. salt and fat in the water when you cook pasta. "Optional" ingredients can be omitted. However, if you are making a yeast product do not leave the salt out as it is needed in the chemical reaction.
- 4) You can substitute 1 ingredient for another, often lowering the fat or sodium content. You can use yogurt instead of sour cream. Herbs and spices can replace salt in tomato /spaghetti sauce. Sautéed mushrooms or tofu can replace meat in a meat sauce. You can use applesauce instead of oil in muffins.
- 5) You can use skim or 2% milk rather than homogenized.

Some useful substitutions include:

<i>Instead of:</i>	<i>Use:</i>
• Sour cream	• Yogurt (skim)
• Salt in tomato / spaghetti sauce	• Herbs and spices
• Cream or coffee whitener	• Skim milk
• Sausage, salami, luncheon meats	• Cold lean meats, fish, chicken (without skin)
• 1 egg	• 2 egg whites + 15 mL (1 tbsp) oil
• 250mL (1 cup) butter or shortening	• 250mL (1 cup) oil or soft margarine melted
• 15mL (1 tbsp) butter or shortening	• 15mL (1 tbsp) oil
• Homogenized milk	• Skim or 2% milk
• 250 mL (1 cup) whipped topping	• beat 50mL (1/4 cup) skim milk powder with 50mL (1/4 cup) ice water until thick. Add 1 mL (1/4tsp) vanilla, 2mL (1/2tsp) lemon juice and 25-50mL (1/8-1/4 cup) sugar.
• High fat cheese	• Low fat cheese
• Egg yolk as thickener	• Starches: flour, rice, corstarch 15 mL (1 tbsp)
• Thick sauces	• Thinner sauces
• Double pie crust	• Single pie crust
• Butter or margarine on sandwiches	• Plain yogurt, light mayo, low fat cottage cheese





Fitness and Exercise

Roll Call: what is your favourite exercise?

Answer to Roll Call:

ACTIVITIES:

1. Have the members come up with ideas of why someone should exercise or the benefits of exercise.
2. Have the members make a goal for himself or herself and a chart or method to measure their accomplishments.
3. Have members discuss what they think fitness is. Does it mean fit and healthy? Or does it mean looking good? Does it mean being healthy and/or free of illness? Does it mean you can jump the farthest or the highest or run the fastest? Think of a person that you consider "fit". Why is the person "fit"? What makes them fit?
4. Have each member list 3 activities they enjoy doing - then using the chart below (written on a flipchart, whiteboard etc.), check off the activities they enjoy doing. Next, have them choose one activity that is:
 - An endurance activity
 - A flexibility exercise
 - A strength exercise

walking	ice skating	football	wheeling	Other activities
running	wall climbing	tennis	climbing	
hiking	skiing	baseball	bowling	
cycling	basketball	softball	hockey	
swimming	volleyball	dancing	playing with friends	
jogging	tobogganing	martial arts	skateboarding	
playing tag	in-line skating	yoga	badminton	
gymnastics	soccer	frisbee	lacrosse	

5. Put on some music and move around for 10 minutes. How do the members feel?

Warm, breathing hard, and heart beating faster. You should get this same effect from walking fast, running around the block, or running up and down stairs.

6. Have members try a vigorous physical activity, such as jumping rope for 5 minutes. How do they feel? Hot, puffing and huffing, hearts beating fast. Discuss how they are helping their hearts and lungs do their best work and are taking lots of oxygen into their blood. Ask members if they feel more alive? You need to do some vigorous exercise every day - maybe start at 10 minutes for the first month and increase it to 15 minutes the second month, etc. to a total of 30 minutes a day.



ACTIVITIES: In Depth

1. Have a member set up a PAR Trail: different stations with different activities at each one. e.g. obstacle course, hoola hoop, skip for 2 minutes, jump a pogo stick 10 times, etc.
2. Have a Jump Rope for Health event - contact the Canadian Heart and Stroke Foundation to set this up.
3. Set up a hiking trail by using orienteering or maps with a small prize left at a station. Each person can take the prize but they must leave a prize for the next person (small trinket, tooth brush, whatever)
4. Have members give a report of the activities that are available in your own community. If activities locally are not available, as a group meet with council or local community group (Optimist, Rotary Club, Lions Club) to try and establish some physical activity opportunities for everyone.

Other Ideas:

- take members to a different active sports activity e.g. wall climbing, lacrosse, kayaking, martial arts, surfing.
- plan a community activity day/picnic/evening. Celebrate "Life".
- Canada Girl Guides/ YMCA all have new healthy /activity programs - get ideas from and work with these organizations.
- have a speaker from Yoga or another fitness venue that members are interested in.
- invite another 4-H Club for a Fun Activity Night.
- visit a YM / YWCA and see what programs are offered, maybe have a "trial run" program arranged for the members.
- have an Achievement Day Program for the youth of your community and plan physical activities and healthy snacks. Perhaps work with the local Health Unit, or Heart and stroke Foundation on this project.
- have a youth physical trainer speak to the group.
- have a sports celebrity come and speak to your group or for several groups at a Fun day.
- have members join in a marathon, or charity walk.
- start a Physical Activity Challenge in your local paper, community, club, or class at school - set goals and time frames.

Resources:

There are many resources are now available both in print and on the Internet.

Fitness and Health - The 4-H Way. 4-H 825 90 ME

4-H Fun Pack. 10 Fun and Enlightening Games and Activities for 4-H Members. National 4-H Council, Ottawa. Feb. 2004 www.4-h.canada.ca.

Let's Get Active. Everyday It's Fun and Healthy Too! Physical Activity Guide for Healthy Active Life. Magazine for Youth 10-14 years of age. Health Canada

Nutrition Matters: Helping Children to Be Active, Eat Well and Accept their Bodies. Toronto Public Health. Feb. 2005



The Vitality Approach. Health Canada, Health Canada Publications, Ottawa, 2000. Phone : 1-613-954-5995. www.hc-sc.gc.ca. (search the site for vitality approach).

The Lifestyle Journey CD. Ideas for People. Inc.

Internet:

www.ideasforpeople.com

www.hc-sc.gc.ca

www.healthportal.gc.ca

www.teachnutrition.org.

www.activehealthykids.ca

www.dietitians.ca/eatwell

www.caringforkids.cps.ca.



Some of the benefits of exercise are:

- stronger muscles and bones
- leaner body because exercise helps control body fat + less likely to become fat
- a decreased risk of developing Type 2 diabetes + possibly lower blood pressure and blood cholesterol levels
- have a better outlook on life.
- sleep better
- relieves stress
- aids in handling physical and emotional challenges.
- meet new friends
- improve physical self-esteem
- achieve a healthy body weight
- maintain flexibility
- promote good posture and balance
- improve fitness
- strengthen the heart
- increase relaxation
- promote healthy growth and development

What an impressive list!!

??What is Fitness??

Fitness is an individual measurement; you should not be comparing your fitness level with others - it is not a competition.

Health and Welfare, Canada defines physical fitness as: "the ability to carry out daily tasks with vigour and alertness, without undue fatigue and with ample energy to enjoy leisure pursuits and to meet unforeseen emergencies".

There are different kinds of exercise:

1. **Aerobic**- means "with oxygen". Aerobic exercises are continuous activity that gets you breathing a little faster and makes your heart pump a little faster. This strengthens your heart and makes your lungs work better. Walking, swimming, running, aerobic dancing, cycling, skipping, basketball, skating (in-line and ice), soccer, tennis, jogging, and stationary rowing are aerobic activities.
2. **Anaerobic** - means "without oxygen". Anaerobic exercise is the kind that requires short bursts of speed, power, and strength. These activities could tire you out quickly.





As well, there are **3 elements** of fitness:

- a) **Endurance** - is developed when someone regularly engages in aerobic activity. With time, aerobic activity strengthens the heart and improves the body's ability to deliver oxygen to all its cells
- b) **Strength** - to help build muscles and bones. Push-ups, stomach crunches, pull-ups and any exercises that tone and strengthen muscles.
- c) **Flexibility** - stretching exercises improve flexibility allowing muscles and joints to bend and move easily through their full range of motion.

People give many reasons why they cannot or do not do sports, exercises or fitness workouts. Some reasons may be:

- no time
- too tired
- don't like exercise
- I look ugly in shorts
- I can't stand pain
- I hate sweating
- I'll do it to-morrow
- I don't have the right equipment
- it costs too much
- my dog died
- I'd rather watch television, or play video games



All of these are good reasons, but they don't provide a "good enough" reason.

Why not look at fitness /exercise in a different way? Health Canada has a new program called:

"Vitality." It is a positive approach to healthy living. The message it sends out is: "Feel Good about Yourself." Their slogan is: "Enjoy eating well, being active and feeling good about yourself". Copies of their guide are available through Health Canada. Phone : 1-613-954-5995. www.hc-sc.gc.ca.

How many of you like exercise?

Let's try and think about **active living** instead. Everything we do all day, like walking, dancing, gardening, climbing stairs, walking the dog, walking to school or the store are all important for your health.

Value and practice activities that you **enjoy**. Be active each and every day. Participate for the joy of feeling your body move. Enjoy physical activities as part of your daily lifestyle.

In the past, people felt that they must feel pain when exercising to achieve their goals. Or, that you had to exercise vigorously three times a week, with the goal of exercise being to burn up energy (lose weight). Many people became discouraged with this and quit.

Vitality suggests that you do activities that feel good for you and are moderate and most of all, fun.



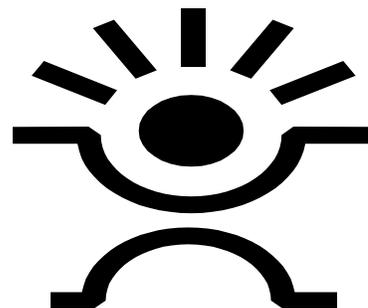


Physical activity is part of your everyday life. Active living is for everyone, no matter what his or her age, size, or shape.

Exercise programs and regimes may suit some people who are concerned about fitness, but the programs may not appeal or may not be possible for everyone.

Try giving yourself some "**positive strokes**" which make you feel good: when you like how you look, when you feed yourself healthy food, and when you share active time with friends and family.

Negative strokes would be for: hassling yourself about your weight, when you don't eat well, or when you do too little physical activity.



"**Vitality**" means feeling good about yourself. Decide to live life to it's fullest and enjoy giving yourself some "positive" strokes. Some of the best strokes are small everyday ones like physical activities that are fun and easy, eating experiences that nourish your mind and body, and telling yourself good things that boost your self-image.

The Shift to Vitality*

The Vitality approach calls for a shift from negative to positive thinking about how to achieve and maintain healthy weights.

Dieting	Healthy Eating
<ul style="list-style-type: none"> • Restrictive eating • Counting Calories, prescriptive diets • Weight cycling (yo-yo diets) • Eating disorders 	<ul style="list-style-type: none"> • Take pleasure in eating a variety of foods • Enjoy lower-fat and complex-carbohydrate foods more often • Meet the body's energy and nutrient needs through a lifetime of healthy, enjoyable eating
Exercise	Active Living
<ul style="list-style-type: none"> • No pain, no gain • Must be done three times a week in your target heart rate zone • Burns calories • High attrition rates for vigorous exercise programs 	<ul style="list-style-type: none"> • Value and practise activities that are moderate and fun • Be active your way, every day • Participate for the joy of feeling your body move • Enjoy physical activities as part of your daily lifestyle
Dissatisfaction With Self	Positive Self and Body Image
<ul style="list-style-type: none"> • Unrealistic goals for body size and shape • Obsession and preoccupation with weight • Fat phobia and discrimination against overweight people • Striving to be a perfect "10" and maintain an impossible "ideal" (thin or muscular) body size • Accepting the fashion, diet and tobacco industries' emphasis on slimness 	<ul style="list-style-type: none"> • Accept and recognize that healthy bodies come in a range of weights, shapes and sizes • Appreciate your strengths and abilities • Be tolerant of a wide range of body sizes and shapes • Relax and enjoy the unique characteristics you have to offer • Be critical of messages that focus on unrealistic thinness and muscularity as symbols of success and happiness

*from *The Vitality Approach*, Health Canada, 2000 pp. 10 - 11





Let's Get Started: Let's get Active!!

Set yourself a goal. Maybe it might be joining a swim club, perhaps helping the family garden. Start by increasing your physical activity by 30 minutes a day. Decrease your "non-active" time spent on the TV, videos, computer games and surfing the internet - by 30 minutes a day. You can build up your physical activity times by periods of 5-10 minutes.

Ideas to help you get active:

- get a friend to join in an activity with you.
- do an activity with your family as a family outing- canoeing, kayaking, and hiking.
- take activity breaks while watching TV: stretch for several minutes. Tighten and then relax muscles 1 group at a time: first your legs, then your arms, your fingers, your toes, even your face and neck. Hold the contraction for 10-60 seconds and then relax.
- when you are at the computer take a health break: get up and walk around the house, run up the stairs, or stretch to the ceiling.
- help a neighbour or elderly citizen by raking their leaves, shovelling snow, cutting their lawn, or carrying their groceries. All are physical activities and all are appreciated.
- put on some favourite music and move to it.
- take the stairs rather than an elevator.
- go for a walk after supper.
- break up homework time, by a short walk. It helps clear the mind for better work.
- see what your friends do to keep active and join them.

MOST POPULAR ACTIVITIES PEOPLE FIT INTO THEIR SCHEDULES:

Taking the stairs instead of the elevator -	80%
Choosing to do light chores for exercise -	67%
Choosing to do heavy chores for exercise-	66%
Commuting by walking-	64%
Commuting by bicycle-	24%

*from The Vitality Approach, Health Canada, 2000 pp.39





Fit Kid Activity Chart

Fit kids strive to be physically active at least 60 minutes every day.

All types of physical activity can count towards your 60 minutes. Riding your bike, walking to school, jumping rope, playing basketball or dancing are examples of physical activities that help keep your body strong and healthy. Use this chart to track your physical activity for one week and see if you can meet the goal of being physically active 60 minutes or more of physical activity every day.

Day	List all activities and total minutes for each activity.	Total Minutes
<i>EXAMPLE</i>	<i>Walked to school (10 minutes), rode bike (20 minutes), played soccer (40 minutes)</i>	<i>70 minutes</i>
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		
Sunday		

How'd you do?

If you logged at least 60 minutes of physical activity every day this week, CONGRATULATIONS! You're a SUPER FIT KID!

If you logged at least 60 minutes of physical activity 5-6 days this week, CONGRATULATIONS! You're a FIT KID!

If you logged at least 60 minutes of physical activity 3-4 days this week, GREAT JOB! You're on your way to becoming a FIT KID!

If you logged at least 60 minutes of physical activity 1-2 days this week, TRY TO FIND MORE FUN PHYSICAL ACTIVITIES YOU CAN DO NEXT WEEK!

Take the Kids Regen.org® Feel Good Challenge!

31 Days of Fun and Fitness for Everyone in the Family!

Follow Kidsregen.org's calendar for fitness, good food, and a healthy outlook everyone will enjoy.

<p>1</p> <p>Round up your family or friends for a 10-minute walk!</p>	<p>2</p> <p>Try 3 fruits or 3 vegetables you've never eaten before.</p>	<p>3</p> <p>Get Moving! *Push-ups for all!</p>	<p>4</p> <p>Feel Good Day! Greet everyone you meet with a smile.</p>	<p>5</p> <p>Play 30 minutes of volleyball with balloons!</p>	<p>6</p> <p>*Palm Tree Stretch! Bend with the ocean breeze.</p>	<p>7</p> <p>REWARD DAY! Cook, bake, or buy a healthy treat.</p>
<p>8</p> <p>Jump around! like a Mexican bean 20 times, then take a 14-minute walk.</p>	<p>9</p> <p>*Snack Attack! Substitute healthy alternatives for junk foods.</p>	<p>10</p> <p>Repeat Day 3 then take the *Up and Down Partner Challenge.</p>	<p>11</p> <p>Feel Good Day! Pamper yourself from head to toe.</p>	<p>12</p> <p>Pay Your Dues! Do 30 minutes of activity for every 30 minutes of TV time.</p>	<p>13</p> <p>Reach for the Stars! Stretch to the sky, breathe deeply, play soft music, and daydream for a while.</p>	<p>14</p> <p>REWARD DAY! Have a dance party; serve healthy snacks and fruit smoothies.</p>
<p>15</p> <p>Walk and Talk! Play "I Spy" as you take an 18-minute walk.</p>	<p>16</p> <p>*Free Your Fridge! Clear Your Cupboards!</p>	<p>17</p> <p>Do some *Follow the Leader Lunges.</p>	<p>18</p> <p>Get Creative! Paint, sew, cook, or plant something beautiful.</p>	<p>19</p> <p>Let's Sweat! Ride a bike, swim, hike, jog, or jump rope for 20-30 minutes.</p>	<p>20</p> <p>Do the *Buddy Stretch!</p>	<p>21</p> <p>REWARD DAY! Invent a celebration that's all about YOU.</p>
<p>22</p> <p>Wacky Walk! Throw on costumes or silly hats and walk in wacky ways for 24 minutes.</p>	<p>23</p> <p>*Take Control of Your Plate. Don't let your food take you over; portion it!</p>	<p>24</p> <p>Looking good! Repeat Days 10 and 17 then do the *Back Builder.</p>	<p>25</p> <p>*Go Fly a Kite! If you don't have one, make one using recycled materials.</p>	<p>26</p> <p>*Backyard Olympics. Head out for fun in the backyard, park, or playground.</p>	<p>27</p> <p>Head to Toe Stretch.</p>	<p>28</p> <p>REWARD DAY! Celebrate the day with a picnic...start with dessert!</p>
<p>29</p> <p>Pump Up the Pace! Take a BRISK 30-minute walk.</p>	<p>30</p> <p>Repeat Day 24 then do the *Partner Squats.</p>	<p>31</p> <p>*Play Food Detective! Whose favorite food packs the best nutritional punch?</p>	<p>You've made it to the finish line. Don't you feel great? Start over for a new month - just be sure to build up your exercise time and keep drinking that water!</p>			

= Get Fit!
 = Eat Healthy!
 = Feel Good Day!
 = Drink extra glasses of water.
 = You're up to the challenge. Congratulations! * = See activity sheet for more information.