

Canada's Food Guide:

Where differing protein sources fit for a healthy diet

Gordon Zello



*Located on Treaty 6 Territory and the Homeland of the Métis
Respectful of Indigenous Peoples and their ancestors*

The Nutrition Message ...

NUTRITION AND THE ELDERLY

The Sugar Bugaboo

CAN MEGADOSES OF VITAMIN C HELP AGAINST COLDS?

a basic primer on fats in the diet

Things Nobody Ever Told Rocky Balboa About Protein

DIPLOMA MILLS GRIND OUT SELF-STYLED NUTRITIONISTS

Might Canadians be taking in too much iron?

The Supplement Story: Can Vitamins Help?

FAT FOR THE FIT

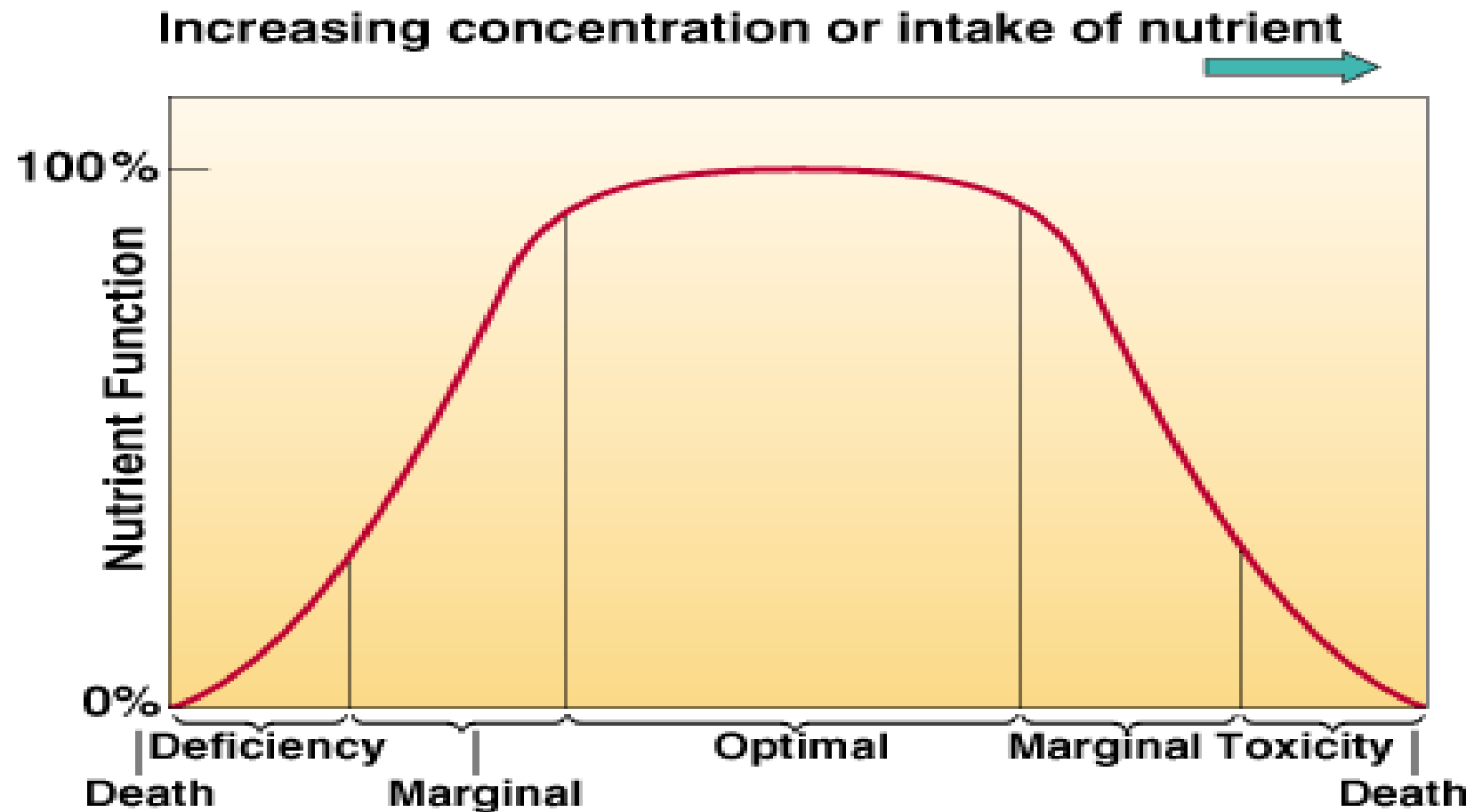
Yo-Yo Dieting Threatens Heart

nutrition myths and misinformation

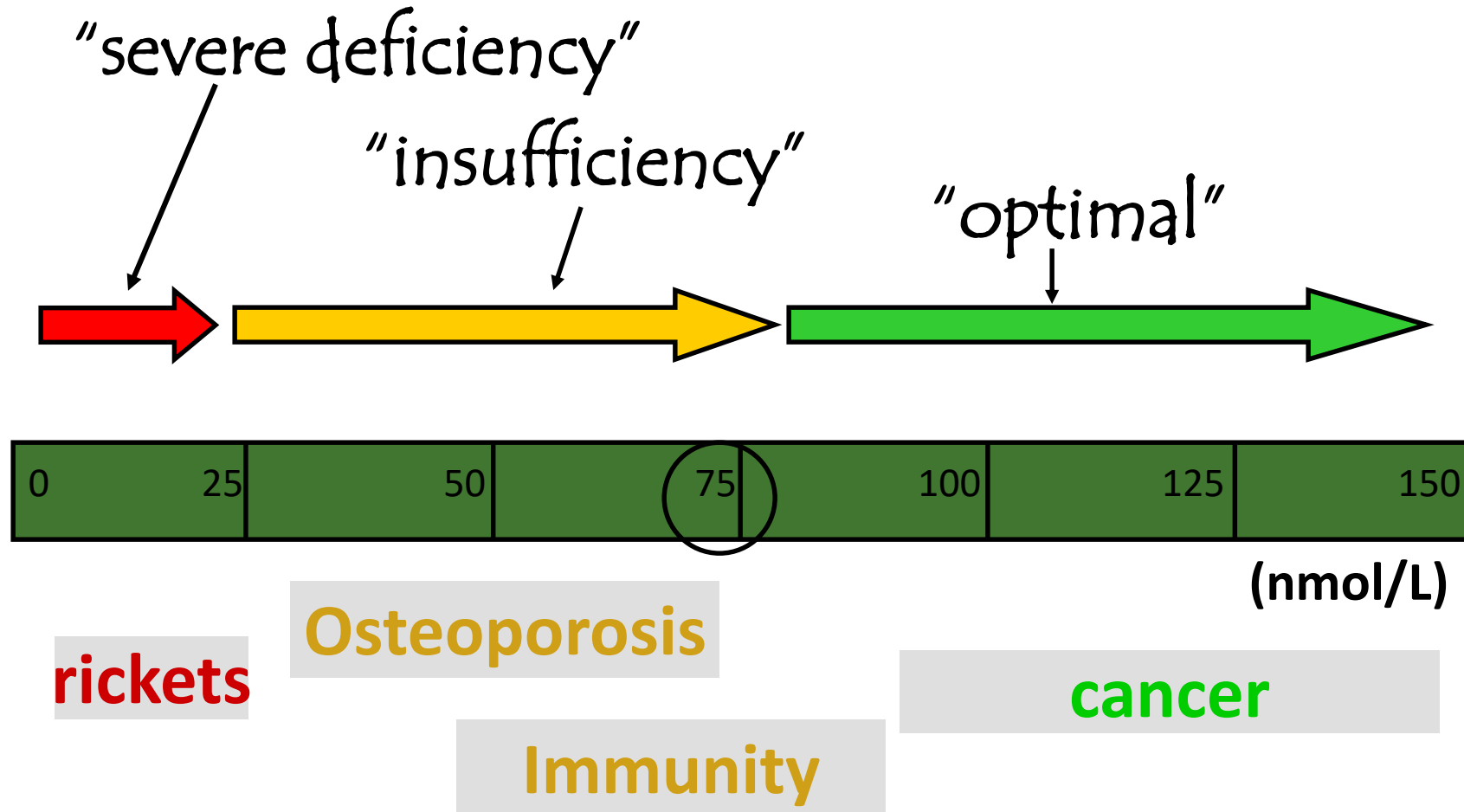
...What Message are You Getting



Poor nutrition can occur from inadequate or excess intake



THE 25(OH)D CONTINUUM





Dietary **DRI** Reference Intakes

The Essential
Guide to
Nutrient
Requirements



The definitive summary resource about nutrient reference values: how much of each nutrient healthy people need, why they are important, and how to use nutrient reference values in planning and assessing diets.

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

DRI

DIETARY REFERENCE INTAKES

FOR
Energy,
Carbohydrate,
Fiber,
Fat,
Fatty Acids,
Cholesterol,
Protein,
and
Amino Acids

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

DRI

DIETARY REFERENCE INTAKES

FOR
Vitamin A,
Vitamin K,
Arsenic,
Boron,
Chromium,
Copper,
Iodine,
Iron,
Manganese,
Molybdenum,
Nickel,
Silicon,
Vanadium, and
Zinc

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

What are the purposes of the DRIs?

- To maintain nutritional adequacy
- To promote health
- To reduce risk of chronic disease
- To provide a measure for evaluating inadequacy and/or excess
- To assess intakes as distributions
 - Across population groups
 - For individuals
- To plan diets



What are characteristics of the DRIs?

- Apply to healthy individuals
- Refer to average daily nutrient intakes
- Values set for several life stage and gender groups
- May vary substantially from day to day without ill effect in most cases



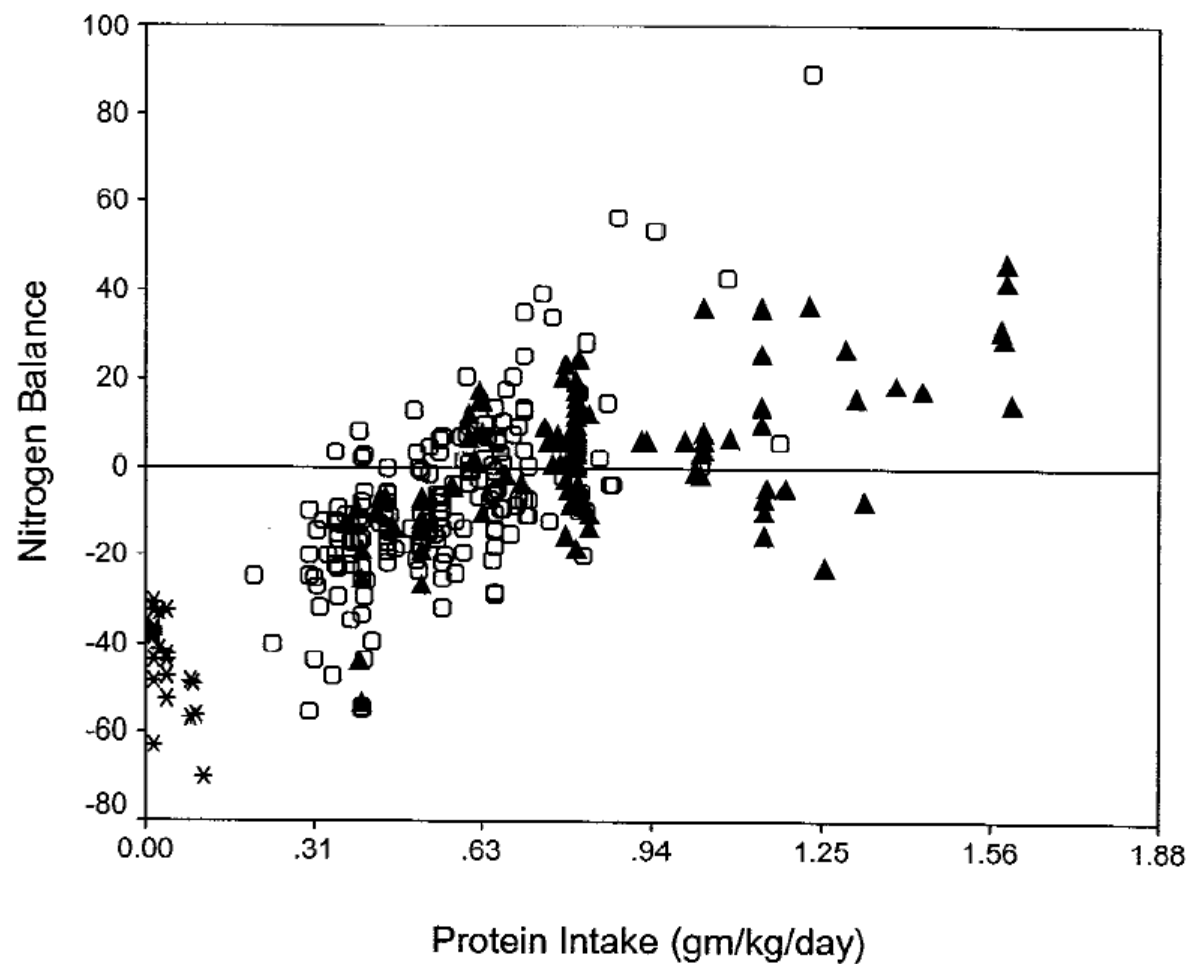
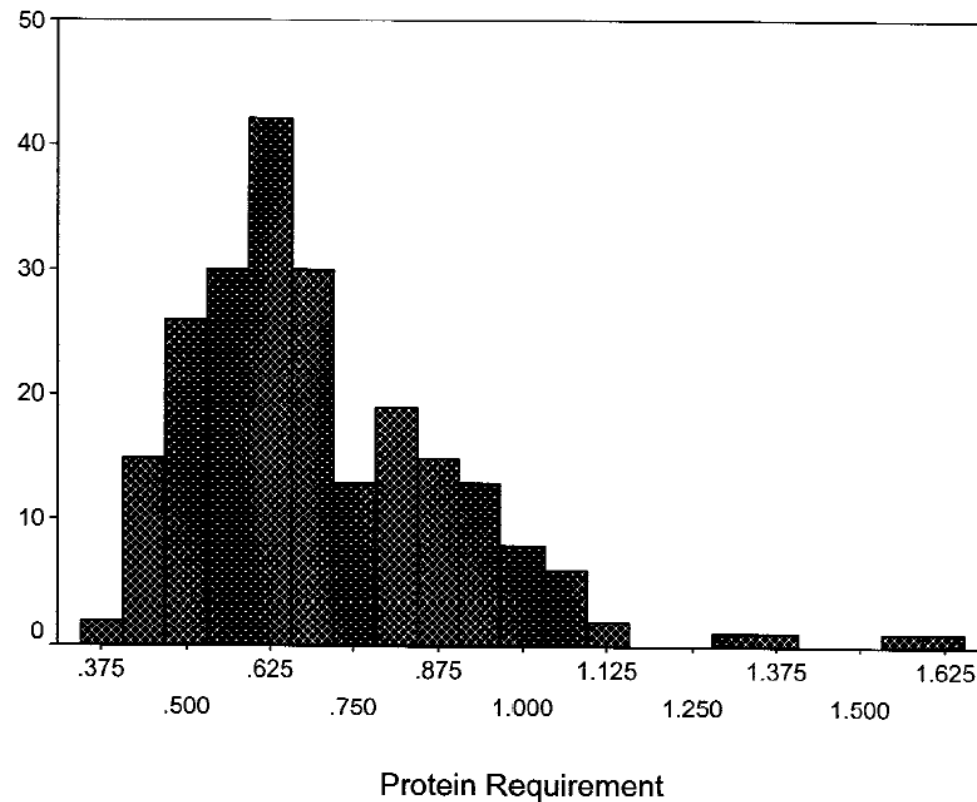


FIGURE 10-6 Relationship between individual nitrogen balances, corrected for integumental and nitrogen losses and nitrogen intake in random selection of data. □ = primary data; ▲ = test data; * = obligatory losses data.

SOURCE: Rand et al. (in press).



Adults/Elderly:

- EAR = 0.66 /kg/d

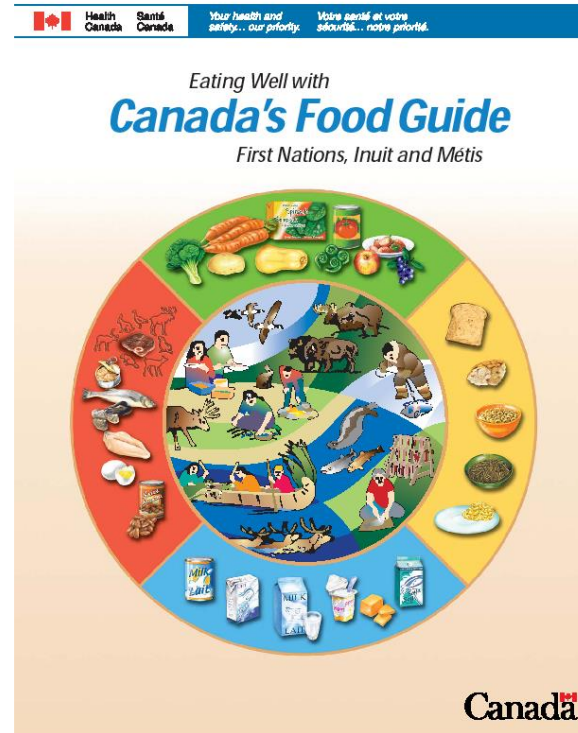
- RDA = 0.80 g/kg/d
(~46 – 56 g/d)

Adult intakes:

~100 g/d

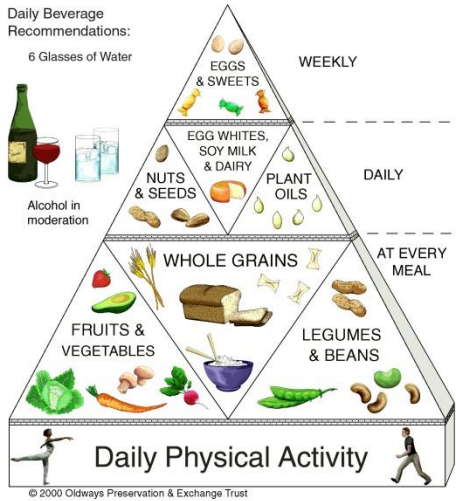
FIGURE 10-5 Distribution of the estimated protein requirements for the 225 individuals (Rand et al., in press) in the trimmed data set showing the skewness of protein requirement.
 SOURCE: William Rand, personal communication, 2002.

Tools to Guide Nutritional Adequacy through Food Intake (Eat Food)

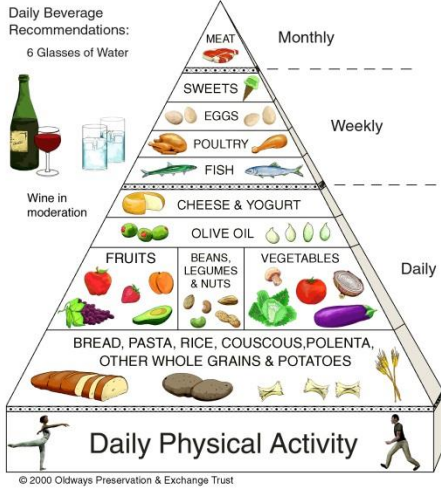


Nutrients —————> Foods and Food Patterns —————> Avoid/Delay Disease

The Traditional Healthy Vegetarian Diet Pyramid



The Traditional Healthy Mediterranean Diet Pyramid



The Traditional Healthy Asian Diet Pyramid



The Traditional Healthy Latin American Diet Pyramid



Canada's Official Food Rules - 1942

CANADA'S OFFICIAL FOOD RULES

These are the Health-Protective Foods

Be sure you eat them every day in at least these amounts.

(Use more if you can)

MILK—Adults— $\frac{1}{2}$ pint. Children—more than 1 pint. And some CHEESE, as available.

FRUITS—One serving of tomatoes daily, or of a citrus fruit, or of tomato or citrus fruit juices, and one serving of other fruits, fresh, canned or dried.

VEGETABLES (In addition to potatoes of which you need one serving daily)—Two servings daily of vegetables, preferably leafy green, or yellow, and frequently raw.

CEREALS AND BREAD—One serving of a whole-grain cereal and 4 to 6 slices of Canada Approved Bread, brown or white.

MEAT, FISH, etc.—One serving a day of meat, fish, or meat substitutes. Liver, heart or kidney once a week.

EGGS—At least 3 or 4 eggs weekly.

Eat these foods first, then add these and other foods you wish.

Some source of Vitamin D such as fish liver oils, is essential for children, and may be advisable for adults.

These are the health protective foods. Be sure to eat them every day in at least these amounts

•MILK- Adults- $\frac{1}{2}$ pint. Children- more than 1 pint. And some cheese as available.

•FRUITS- One serving of tomatoes daily, or of a citrus fruit, or of tomato or citrus fruit juices, and one serving of other fruits, fresh, canned or dried.

•VEGETABLES- (In addition to potatoes of which you need one serving daily) - Two servings daily of vegetables, preferably leafy green or yellow and frequently raw.

•CEREALS AND BREADS- one serving of a whole grain cereal and four to six slices of Canada Approved Bread, brown or white.

•MEAT, FISH, etc. - One serving a day of meat, fish, or meat substitutes. Liver, heart or kidney once a week.

•EGGS- at least 3 or 4 eggs weekly

Eat these foods first, then add these and other foods you wish.

Some source of vitamin D such as fish liver oils, is essential for children, and may be advisable for adults.

Canada's Food Rules -1944



THESE ARE THE FOODS FOR HEALTH. EAT THEM EVERY DAY.
DRINK PLENTY OF WATER.

•Milk- Adults- $\frac{1}{2}$ to 1 pint. Children, $1\frac{1}{2}$ pint to 1 quart.

•Fruit- One serving of citrus fruit or tomatoes or their juices; and one serving of other fruit.

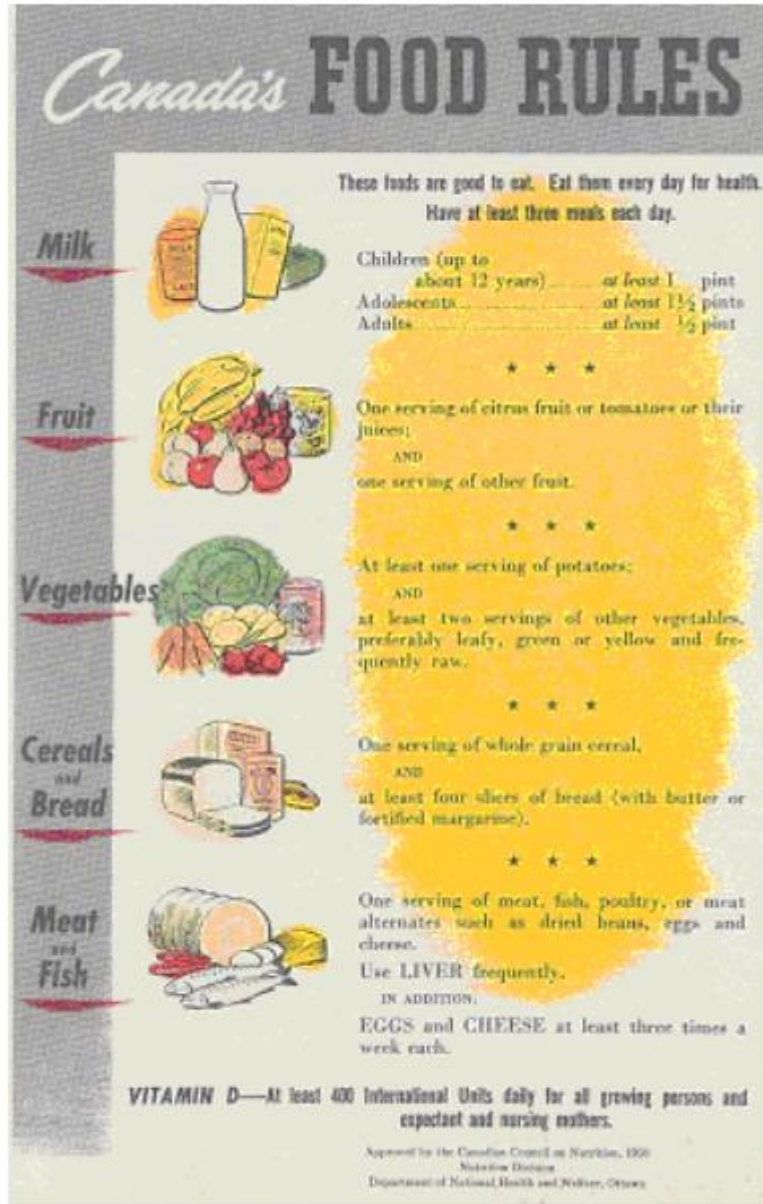
•Vegetables- At least one serving of potatoes. At least two servings other vegetables, preferably leafy, green or yellow, and frequently raw.

•Cereals and bread- One serving of a whole-grain cereal and at least four slices of Canada Approved Vitamin B bread (whole wheat, brown or white) with butter.

•Meat and fish- One serving of meat, fish, poultry or meat alternatives such as beans, peas, nuts, eggs or cheese. Also use eggs and cheese at least three times a week each, and liver frequently.

A fish liver oil, as a source of vitamin D, should be given to children and expectant women, and may be advisable for older adults.
Iodised salt is recommended.

Canada's Food Rules - 1949



These foods are good to eat. Eat them every day for health. Have at least three meals each day.

- Milk: Children (up to about 12 years) - at least 1 pint. Adolescents- at least 1½ pints. Adults- at least ½ pint.

- Fruit: One serving of citrus or tomatoes or their juices and one serving of other fruit.

- Vegetables: At least one serving of potatoes and at least two servings of other vegetables preferably leafy, green or yellow and frequently raw.

- Cereals and bread: One serving of whole grain cereal and at least four slices of bread (with butter or fortified margarine).

- Meat and fish: One serving of meat, fish, poultry or meat alternatives such as dried beans, eggs and cheese. Use liver frequently. In addition, eggs and cheese at least three times a week each.

-

- Vitamin D: At least 400 International Units daily for all growing persons and expectant and nursing mothers.

Breakfast:

Citrus fruit; whole grain cereal **with milk**; bread with butter or fortified margarine; **egg or other protein food** (if desired); **beverage-milk for children**.

Dinner (at noon or at night):

Meat, fish or poultry; potato; other vegetable(s); bread (if desired); fruit or fruit dessert; **beverage-milk for children**.

Supper or lunch:

Cheese, egg or other protein food; vegetable; bread with butter or fortified margarine; **dessert**; **beverage-milk**.

A Pattern For Meals

(following Canada's Food Rules, as given on the other side)

Breakfast

Citrus fruit

Whole grain cereal with milk

Bread with butter or fortified margarine

Egg or other protein food (if desired)

Beverage—milk for children

Dinner

(at noon or at night)

Meat, fish or poultry

Potato Other vegetable(s)

Bread (if desired)

Fruit or fruit dessert

Beverage—milk for children

Supper or Lunch

Cheese, egg or other protein food

Vegetable

Bread with butter or fortified margarine

Dessert

Beverage—milk

Printed 1953

Revised 1954

Reprinted 1955, 1957, 1958

Canada's Food Guide - 1961

CANADA'S FOOD GUIDE		
THESE FOODS ARE GOOD TO EAT. EAT THEM EVERY DAY FOR HEALTH. HAVE THREE MEALS EACH DAY.		
MILK	Children up to about 11 years Adolescents Adults Expectant and nursing mothers	2½ cups (20 fl. oz.) 4 cups (32 fl. oz.) 1½ cups (12 fl. oz.) 4 cups (32 fl. oz.)
FRUIT	Two servings of fruit or juice (including a satisfactory source of vitamin C (ascorbic acid) such as oranges, tomatoes, vitaminized apple juice).	
VEGETABLES	One serving of potatoes. Two servings of other vegetables, preferably yellow or green and often raw.	
BREAD AND CEREALS	Bread (with butter or fortified margarine). One serving of whole grain cereal.	
MEAT AND FISH	One serving of meat, fish or poultry. Eat liver occasionally. Eggs, cheese, dried beans or peas, may be used in place of meat. In addition, eggs and cheese each at least three times a week.	
VITAMIN D	400 International Units, for all growing persons and expectant and nursing mothers.	
APPROVED BY THE CANADIAN COUNCIL ON NUTRITION, 1961. NUTRITION DIVISION, DEPARTMENT OF NATIONAL HEALTH & WELFARE, CANADA.		

Milk

- Children up to about 11 years: 2½ (20 fluid ounces)
- Adolescents: 4 cups (32 fluid ounces)
- Adults: 1½ cups (12 fluid ounces)
- Expectant and nursing mothers: 4 cups (32 fluid ounces)

Fruit

- Two servings of fruit or juice, including a satisfactory source of vitamin C (ascorbic acid) such as oranges, tomatoes, and vitaminized apple juice.

Vegetables

- One serving of potatoes. Two servings of other vegetables, preferably yellow or green and often raw.

Bread and cereals

- Bread (with butter or fortified margarine). One serving of whole grain cereal.

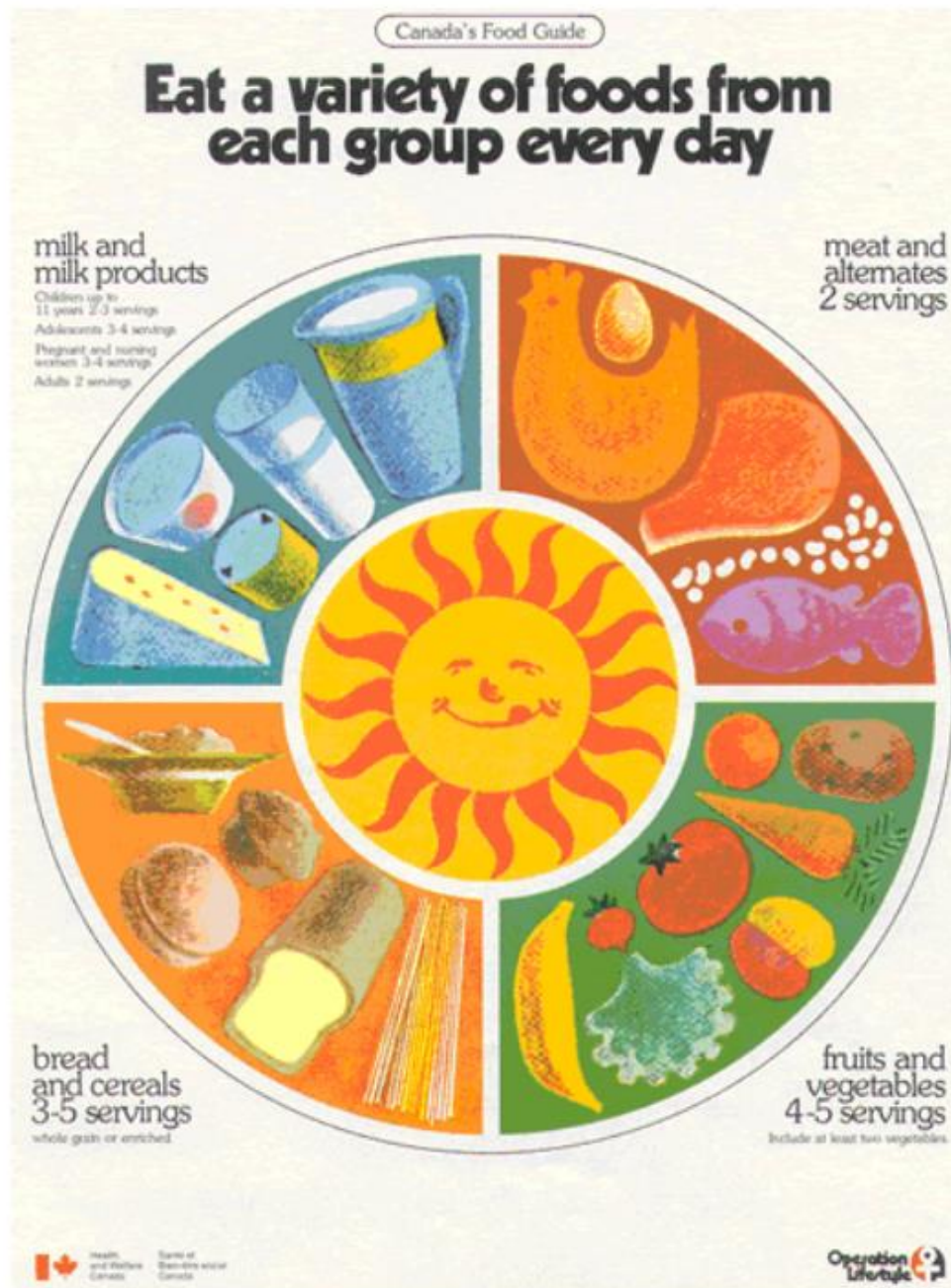
Meat and fish

- One serving of meat, fish or poultry. Eat liver occasionally. Eggs, cheese, dried beans or peas may be used in place of meat. In addition, eggs and cheese at least three times a week.

Vitamin D

- 400 International Units, for all growing persons and expectant and nursing mothers.

Canada's Food Guide - 1977 - Front



Eat a variety of foods from each group every day.

Milk and milk products are depicted in the top left section of the wheel. Foods depicted are milk, canned milk, yogurt and cheese.

Meat and alternatives are depicted in the top right section of the wheel. Foods depicted are chicken, an egg, a meat cut, **legumes** and fish. Two servings are recommended.

Bread and cereals are depicted in the bottom left section of the wheel. Foods depicted are pasta, bread, a muffin, a bun and a bowl of cereal. Three to five servings are recommended, specifically whole grain or enriched.

Fruits and vegetables are depicted in the lower right section of the wheel. Foods depicted are a potato, an orange, a carrot, a tomato, an apple, a leaf of lettuce, a banana and a radish. Four to five servings are recommended, including a specification to include at least two vegetables.

Food groups are divided into four sections below these statements.

Milk and milk products:

- Children up to 11 years: 2 to 3 servings.
- Adolescents: 3 to 4 servings.
- Pregnant and nursing women: 3 to 4 servings.
- Adults: 2 servings
- Skim, 2%, whole, buttermilk, dry or evaporated Cheese may also be chosen.
- Examples of one serving
 - 250 mL milk, yoghurt or cottage cheese
 - 45 g cheddar or process cheese
 - Supplement of vitamin D is recommended when milk does not contain added vitamin D.

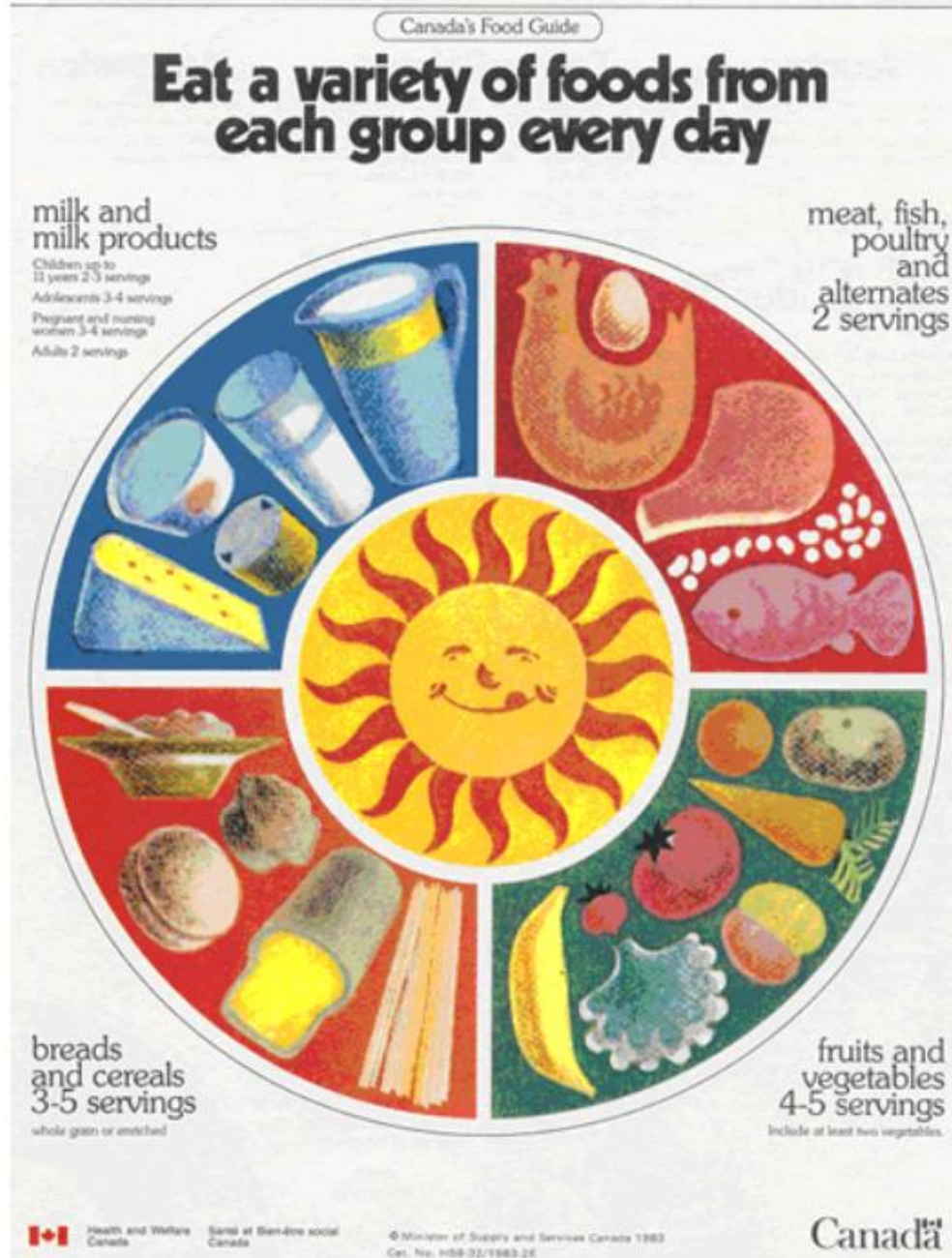
Meat and alternatives: 2 servings.

- Examples of one serving
 - 60-90 g lean meat, poultry, liver or fish
 - 60 mL peanut butter
 - **250 mL cooked dried peas, beans and lentils**
 - 80-250 mL nuts or seeds
 - 60 g cheddar, process of cottage cheese
 - Two eggs.

Canada's Food Guide - 1977 - Back



Canada's Food Guide - 1982 - Front



Eat a variety of foods from each group every day.

Milk and milk products are depicted in the top left section of the wheel. Foods depicted are milk, canned milk, yogurt and cheese. Messages on the number of servings specific to each age

Meat, fish, poultry and alternatives are depicted in the top right section of the wheel. Foods depicted are chicken, an egg, a meat cut, **legumes** and fish. Two servings are recommended.

Breads and cereals are depicted in the bottom left section of the wheel. Foods depicted are pasta, bread, a muffin, a bun and a bowl of cereal. Three to five servings are recommended, specifically whole grain or enriched.

Fruits and vegetables are depicted in the lower right section of the wheel. Foods depicted are a potato, an orange, a carrot, a tomato, an apple, a leaf of lettuce, a banana and a radish. Four to five servings are recommended, including a specification to include at least two vegetables.

Milk and milk products

Meat, fish, poultry and alternatives

- 60 mL peanut butter
- 250 mL cooked dried peas, beans and lentils
- 125 mL nuts or seeds



Canada's Food Guide to Healthy Eating - 1992 - Front



Eat a variety of foods from each food group every day.
Choose lower-fat foods more often.

Largest arc of the rainbow: Grain products food group

Second largest arc: Vegetables and Fruit group

Third arc: Milk Products food group.

Fresh, powdered and canned milk, cheeses, yogurts and ice cream.

Smallest arc: Meat and Alternatives food group.

Processed meats, cooked turkey, different types of red meat, fresh and canned fish, **tofu**, an egg, **canned beans** and a **peanut butter jar**. At the bottom of the band it states: Choose leaner meats, poultry and fish, as well as **dried peas, beans and lentils** more often.

Canada's Food Guide to Healthy Eating - 1992 - Back

The back page provides specific numbers of servings and serving sizes for each food group.

Milk Products: Children 4 to 9 years: 2 to 3 servings per day. Youth 10 to 16 years: 3 to 4 servings per day. Adults: 2 to 4 servings per day. Pregnant and breastfeeding women: 3 to 4 servings. Examples of one serving are 250 millilitres (1 cup); 50 grams of cheese, equivalent to a piece measuring 3 inches by 1 inch by 1 inch or 2 slices of processed cheese; 175 milliliters (3/4 cup) of yogurt.

Meat and alternatives: 2-3 servings per day. Examples of 1 serving are 50 to 100 grams of meat, poultry or fish, including canned fish (equivalent to 1/3 to 2/3 of a can); 1-2 eggs; **125 to 250 millilitres of canned beans; 100 grams (1/3 cup) of tofu; 30 millilitres (2 tablespoons) of peanut butter.**

Grain Products
5-12 SERVINGS PER DAY

1 Serving: 1 Slice, 30 g, 175 mL, 3/4 cup
2 Servings: 1 Bagel, Pita or Bun, 250 mL, 1 cup

Vegetables and Fruit
5-10 SERVINGS PER DAY

1 Serving: 1 Medium Size Vegetable or Fruit, 125 mL, 1/2 cup, 250 mL, 1 cup, 125 mL, 1/2 cup

Milk Products
SERVINGS PER DAY
Children 4-9 years: 2-3
Youth 10-16 years: 3-4
Adults: 2-4
Pregnant and Breast-feeding Women: 3-4

1 Serving: 250 mL, 1 cup, 2 x 1 x 1, 50 g, 2 Slices, 30 g, 175 g, 3/4 cup

Meat and Alternatives
2-3 SERVINGS PER DAY

1 Serving: Meat, Poultry or Fish, 50-100 g, 1/3-2/3 Can, 30-100 g, 1-2 Eggs, Beans, 125-250 mL, 100 g, 1/3 cup, Peanut Butter, 30 mL, 2 tbsp

Other Foods
Taste and enjoyment can also come from other foods and beverages that are not part of the 4 food groups. Some of these foods are higher in fat or calories, so use these foods in moderation.

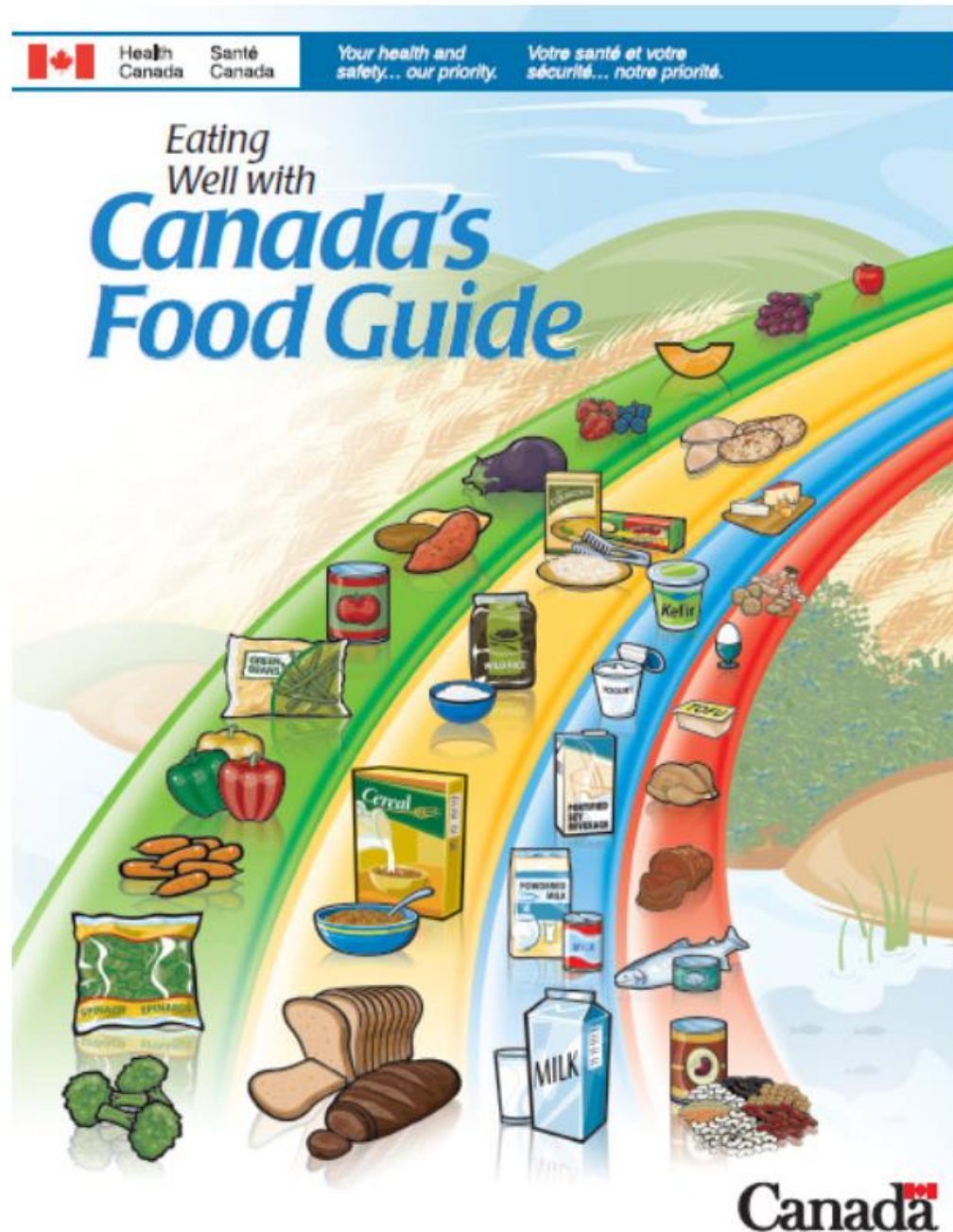
Different People Need Different Amounts of Food
The amount of food you need every day from the 4 food groups and other foods depends on your age, body size, activity level, whether you are male or female and if you are pregnant or breast-feeding. That's why the Food Guide gives a lower and higher number of servings for each food group. For example, young children can choose the lower number of servings, while male teenagers can go to the higher number. Most other people can choose servings somewhere in between.

Consult Canada's Physical Activity Guide to Healthy Active Living to help you build physical activity into your daily life.

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

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Eating Well with Canada's Food Guide 2007



Rainbow with four arcs representing the four food groups.

Largest arc of the rainbow includes illustrated examples of fresh, frozen and canned vegetables and fruit.

Next arc is smaller and includes illustrated examples of grain products.

A smaller arc next to this includes illustrated examples of milk and milk products.

The smallest includes illustrated examples of meat and alternatives.

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.

	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)
Vegetables and Fruit Fresh, frozen and canned.	4	5-6	7-8	7-10
Grain Products	3	4-6	6-7	7-8
Milk and Alternatives	2	2-4	Teens 3-4 Adults (19-50 years) 2 Adults (51+ years) 3	Teens 3-4 Adults (19-50 years) 2 Adults (51+ years) 3
Meat and Alternatives	1	1-2	2	3

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.

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.



Dark green and orange vegetables
125 mL (1/2 cup)



Other vegetables
125 mL (1/2 cup)



Leafy vegetables and wild plants
cooked 125 mL (1/2 cup)
raw 250 mL (1 cup)



Berries
125 mL (1/2 cup)



Fruit
1 fruit or 125 mL (1/2 cup)



100% Juice
125 mL (1/2 cup)

Make at least half of your grain products whole grain each day. Choose grain products that are lower in fat, sugar or salt.



Bread
1 slice (35 g)



Bannock
35 g (2" x 2" x 1")



Cold cereal
30 g (see food package)



Hot cereal
175 mL (3/4 cup)



Cooked pasta
125 mL (1/2 cup)



Cooked rice
White, brown, wild
125 mL (1/2 cup)

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.



Milk



Powdered milk, mixed
250 mL (1 cup)



Fortified soy beverage
250 mL (1 cup)



Canned milk (evaporated)
125 mL (1/2 cup)



Yogurt
175 g (3/4 cup)



Cheese
50 g (1 1/2 oz.)

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.



Traditional meats and wild game
75 g cooked (2 1/2 oz/125 mL (1/2 cup))



Fish and shellfish
75 g cooked (2 1/2 oz/125 mL (1/2 cup))



Lean meat and poultry
75 g cooked (2 1/2 oz/125 mL (1/2 cup))



Eggs
2 eggs



Beans - cooked
175 mL (3/4 cup)



Peanut butter
30 mL (2 Tbsp)

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 ooligan 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 margarine 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.

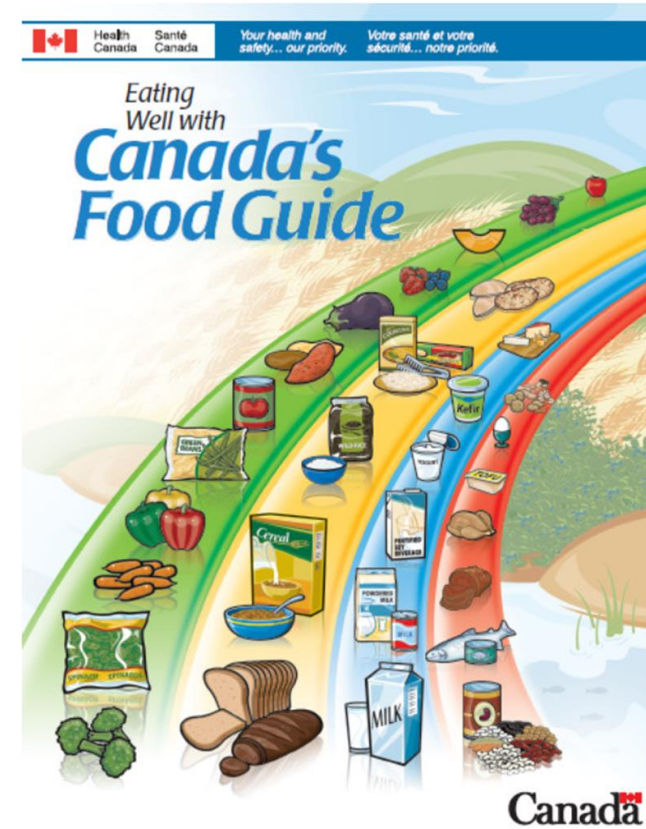
David of the 16th Century

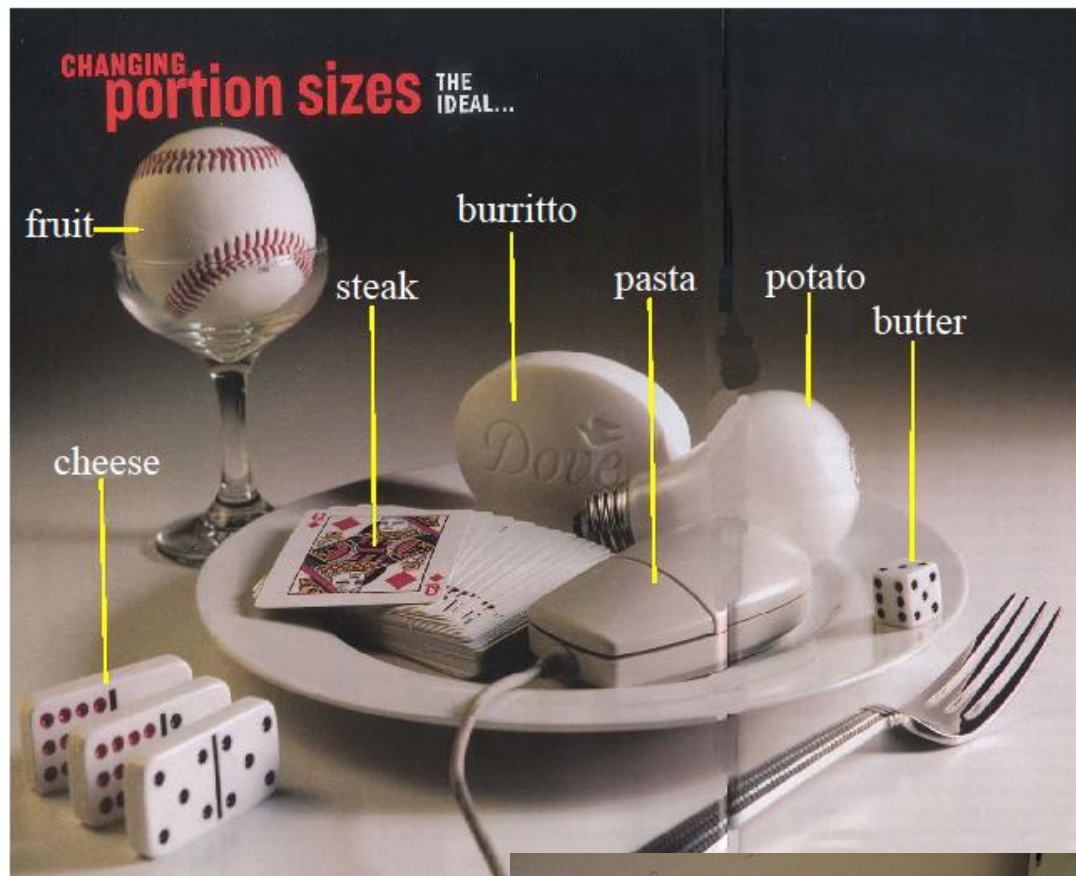


David of the 21st Century



Eating Well with Canada's Food Guide





Portion Distortion

20 Years Ago



500 calories

1 Cup spaghetti with sauce
and 3 small meatballs

Today



1,025 calories

2 Cup pasta with sauce and 3
large meatballs

Calorie Difference: 525 calories





Canada Food Guide changes: More veg, less meat, and no more eating alone

Canada's new food guide shifts toward plant-based diets at expense of meat, dairy



Eat plant-based foods more often, new Food Guide says

AGCanada.com

HEALTH

January 4, 2019 2:53 pm

Updated: January 4, 2019 10:49 pm

New food guide to encourage Canadians to eat more plant-based protein



The new Canada's Food Guide explained: Goodbye four food groups and serving sizes, hello hydration



canoe.com

New Canada Food Guide nixes portion sizes, promotes plant-based proteins

Got milk? Not so much. Health Canada's new food guide drops 'milk and alternatives' and favours plant-based protein

NATIONAL POST

Canada's new food guide, the first update in more than a decade, recommends fruits and vegetables make up half our plates at any meal

Canada's Food Guide recommends we eat more plants, less meat



New Canada food guide calls for plant-based diet, pushes salt and saturated fat to the side

THE STAR

By Michele Henry Staff Reporter

Health

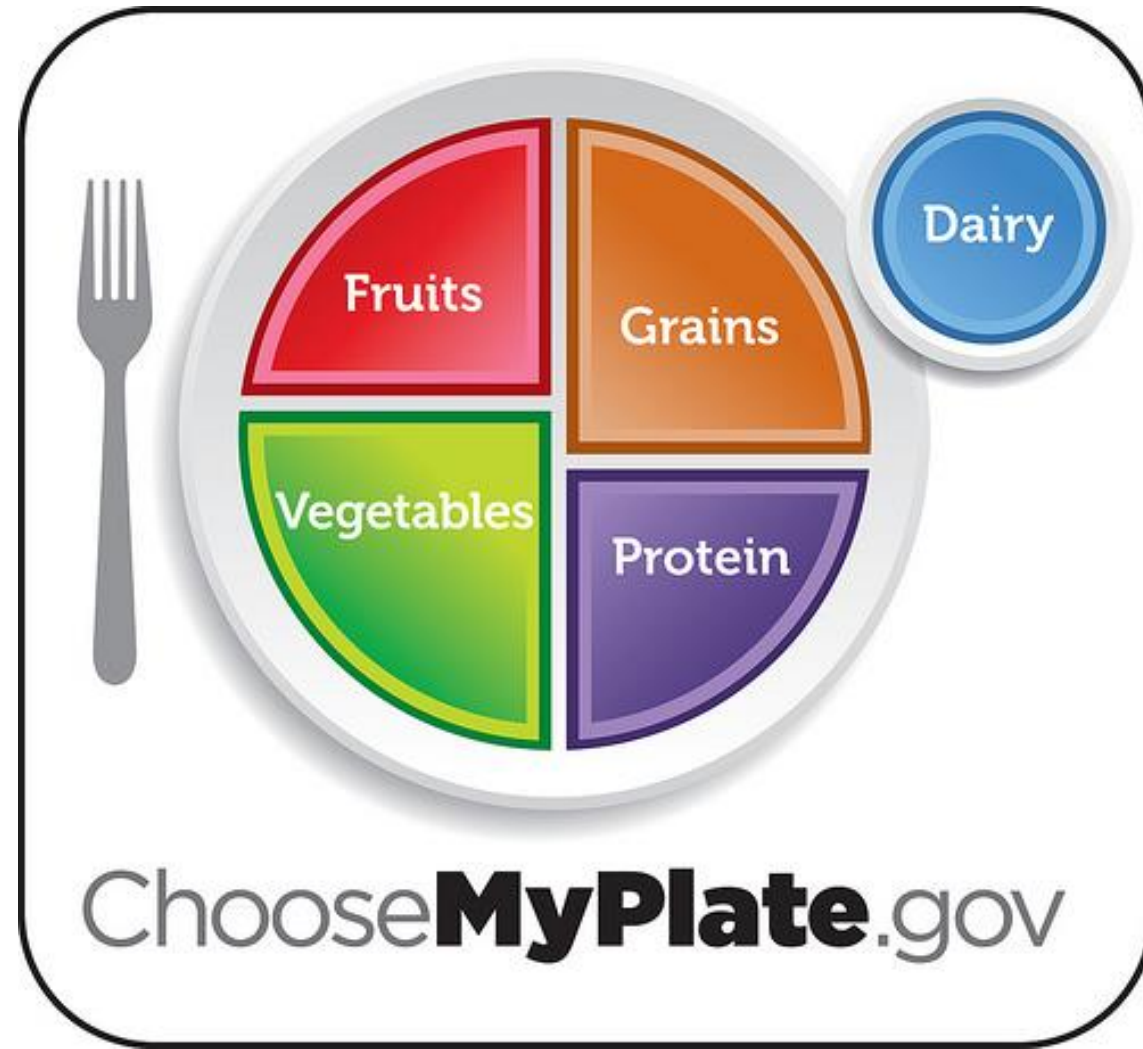


MENU

New food guide unveiled without food groups or recommended servings

Released Tuesday, new guide emphasizes fruits and veggies, whole grain foods, protein, sharpening food skills

CBC News - Posted: Jan 21, 2019 6:39 PM ET | Last Updated: January 22



Canada's Food Guide

Eat plenty of vegetables and fruits, whole grain foods and protein foods.

Choose protein foods that come from plants more often

Choose foods with healthy fats instead of saturated fat

Limit highly processed foods. If you choose these foods, eat them less often and in small amounts.

Prepare meals and snacks using ingredients that have little to no added sodium, sugars or saturated fat

Choose healthier menu options when eating out

Make water your drink of choice (replace sugary drinks with water)

Use food labels

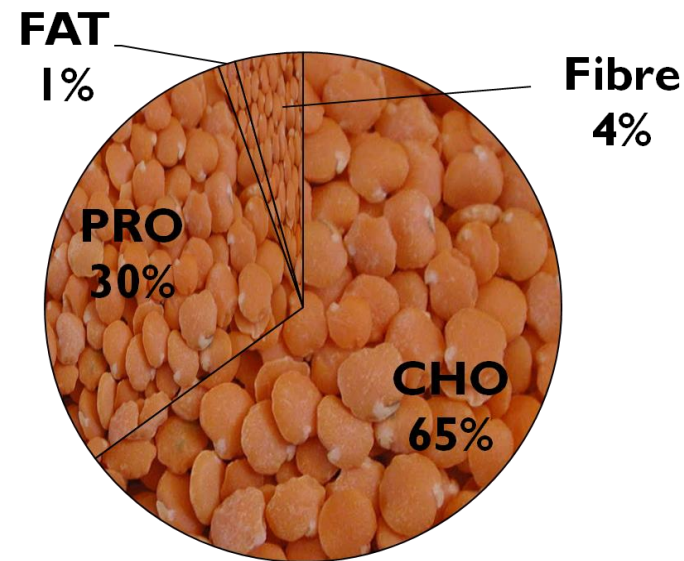
Be aware that food marketing can influence your choices



Milk and Meat Alternatives Groups Removed

Nutrients in Pulses

- Pulses are the seeds from the pods of legumes, and include beans, peas, chickpeas, and lentils (i.e. low fat legumes)
 - Micronutrients (Fe, Zn, Se)
 - Soluble fiber
 - Oligosaccharides
 - Isoflavones
 - Anti-oxidants
 - Folic acid
 - Phytosterols





Some Long Term Health Benefits of Pulse Crops in the Human Diet

In infant and children's diet for:

- Growth and development

In adult diet can reduce risks for:

- Cancer (colon and mammary)
- Type 2 Diabetes
- Obesity
- Heart disease

Position of the American Dietetic Association and Dietitians of Canada: Vegetarian diets

ABSTRACT

It is the position of the American Dietetic Association and Dietitians of Canada that appropriately planned vegetarian diets are healthful, nutritionally adequate, and provide health benefits in the prevention and treatment of certain diseases. Approximately 2.5% of adults in the United States and 4% of adults in Canada follow vegetarian diets. A vegetarian diet is defined as one that does not include meat, fish, or fowl. Interest in vegetarianism appears to be increasing, with many restaurants and college foodservices offering vegetarian meals routinely. Substantial growth in sales of foods attractive to vegetarians has occurred, and these foods appear in many supermarkets.

This position paper reviews the current scientific data related to key nutrients for vegetarians, including protein, iron, zinc, calcium, vitamin D, riboflavin, vitamin B-12, vitamin A, n-3 fatty acids, and iodine. A vegetarian, including vegan, diet can meet current recommendations for all of these nutrients. In

some cases, use of fortified foods or supplements can be helpful in meeting recommendations for individual nutrients.

Well-planned vegan and other types of vegetarian diets are appropriate for all stages of the life cycle, including during pregnancy, lactation, infancy, childhood, and adolescence. Vegetarian diets offer a number of nutritional benefits, including lower levels of saturated fat, cholesterol, and animal protein as well as higher levels of carbohydrates, fiber, mag-

POSITION STATEMENT

It is the position of the American Dietetic Association and Dietitians of Canada that appropriately planned vegetarian diets are healthful, nutritionally adequate, and provide health benefits in the prevention and treatment of certain diseases.

VEGETARIANISM IN PERSPECTIVE

A vegetarian is a person who does not eat meat, fish, or fowl or products containing these foods. The eating patterns of vegetarians may vary considerably. The lacto-ovo-vegetarian eating pattern is based on grains, vegetables, fruits, legumes, seeds, nuts, dairy products, and eggs but excludes meat, fish, and fowl. The lacto-vegetarian excludes eggs as well as meat, fish, and fowl. The vegan, or total vegetarian, eating pattern is similar to the lacto-vegetarian pattern, with the additional exclusion of dairy and other animal products. Even within these patterns, considerable variation may exist in the extent to which animal products are avoided.

People choosing macrobiotic diets are frequently identified as following a vegetarian diet. The macrobiotic diet is based largely on grains, legumes, and vegetables. Fruits, nuts, and seeds are used to a lesser extent. Some people following a macrobiotic diet are not truly vegetarian because they use limited amounts of fish. Some "self-described" vegetarians, who are not vegetarians at all, will eat fish, chicken, or even meat (1,2). Some research studies have identified these "self-de-

Protein Quality

Protein foods are good for you

You can eat a variety of protein foods as part of a healthy eating pattern.

Protein foods have important nutrients such as: protein, vitamins, minerals

Choose protein foods that come from plants more often. Plant-based protein foods can provide more fibre and less saturated fat than other types of protein foods. This can be beneficial for your heart health. You don't need to eat large amounts of protein foods to meet your nutritional needs.

Try to eat protein foods such as:

Eggs, lean meats and poultry, lean cuts of beef, pork and wild game, turkey, chicken

Nuts and seeds (peanuts?, almonds, cashews, nut butters, sunflower seeds)

Fish and shellfish (trout, shrimp, salmon, scallops, sardines, mackerel)

Lower fat dairy products (milk, yogurt, lower sodium cheeses)

Beans, peas and lentils (brown, green or red or other lentils, peas such as chickpeas and split peas, dried beans such as black beans and kidney beans)

Fortified soy beverages, tofu, soybeans and other soy products

Choosing and preparing healthy protein foods:

Beans, peas and lentils

- dried beans, peas and lentils to soak and cook at home
- low sodium canned beans, peas and lentils, or rinse and drain them to reduce the amount of sodium

Nuts and seeds

- dry roasted nuts and seeds without added sugars, fat (oils), sodium (salt)
- peanut butter or other nut butters that list peanuts or nuts as the only ingredient.

How to eat more protein foods that come from plants

- Add soft tofu to a blended soup to make it thicker and creamier.
- Try a **bean salad, lentil** and rice pilaf or a bowl of vegetarian chili for lunch.
- Make your own trail mix by combining your favourite whole grain cereal with a handful of nuts and seeds.
- Spread **hummus** on the inside of a whole grain pita and fill with vegetables such as romaine lettuce and shredded carrots.

Each week, plan a couple of meatless meals. As your main course, try using:

•**beans in a burrito**

- tofu in a vegetable stir-fry

•**chickpeas and beans in tacos**

•**lentils in a soup, stew or casserole**

**Healthy eating is more than the foods you eat.
It is also about where, when, why and how you eat**

Be mindful of your eating habits

- Take time to eat
- Notice when you are hungry and when you are full

Cook more often

- Plan what you eat
- Involve others in planning and preparing meals

Enjoy your food

- Culture and food traditions can be a part of healthy eating

Eat meals with others

Healthy eating is more than the foods you eat



Be mindful of your eating habits



Cook more often



Enjoy your food



Eat meals with others



Use food labels



Limit foods high in sodium, sugars
or saturated fat



Be aware of food marketing



Français

Italiano

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Español

繁體中文

Ojibwe

العربية

Polski

فارسی

Tagalog

ᐃᓄᐃᑦᐅᑦ

Inuinnaqtun

русский

Food guide snapshot

हिंदी

简体中文

Now available in 28 languages

Paskwāwinīmowin



Food guide snapshot – Other languages

**Canada's
food guide**



Minister of Health, Ginette Petitpas Taylor, announced the translation of Canada's Food Guide Snapshot into additional languages in Brampton, ON on June 24th. (CNW Group/Health Canada)



Using the Nutrition Facts Table: % Daily Value

How to CHOOSE

The Nutrition Facts table gives you information on calories and 13 core nutrients. Use the amount of food and the % Daily Value (% DV) to choose healthier food products.

Follow these three steps:

1 LOOK at the amount of food

Nutrition Facts are based on a specific amount of food (also known as the serving size). Compare this to the amount you actually eat.

2 READ the % DV

The % DV helps you see if a specific amount of food has a little or a lot of a nutrient.

5% DV or less is a **LITTLE**
15% DV or more is a **LOT**

This applies to all nutrients.

3 CHOOSE

Make a better choice for you. Here are some nutrients you may want...

less of

- Fat
- Saturated and trans fats
- Sodium

more of

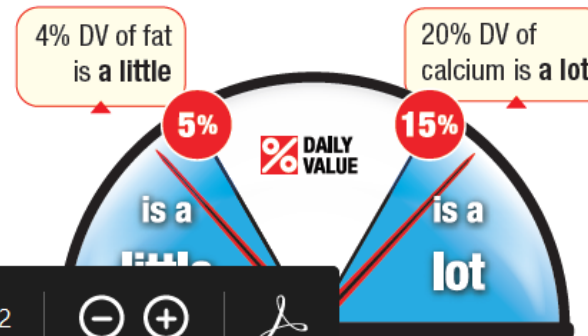
- Fibre
- Vitamin A
- Calcium
- Iron

Here is an example of how to choose:

You are at the grocery store looking at yogurt. The small container (175 g) of yogurt you pick has a **little** fat (4% DV) and a **lot** of calcium (20% DV) – this is a better choice as part of a healthy diet.

Yogurt

Nutrition Facts	
Per 3/4 cup (175 g)	
Amount	% Daily Value
Calories 160	
Fat 2.5 g	4 %
Saturated 1.5 g + Trans 0 g	8 %
Cholesterol 10 mg	
Sodium 75 mg	3 %
Carbohydrate 25 g	8 %
Fibre 0 g	0 %
Sugars 24 g	
Protein 8 g	
Vitamin A 2 %	Vitamin C 0 %
Calcium 20 %	Iron 0 %





Nutrition Facts

NEW

English Muffin Beyond
Meat Sausage & Egger



Beyond Meat Burger



Beyond Meat Burger – Calories 500, Fat 29g, Protein 22g, Serving Size 231g

Teen Burger – Calories 500, Fat 26g, Protein 25g, Serving Size 230g

Nutrition Facts

Serving Size 1 burger (231g)

Amount Per Serving
Calories 500

% Daily Values*	
Total Fat 29g	45%
Saturated Fat 5g	25%
Trans Fat 0g	
Cholesterol 5mg	2%
Sodium 1110mg	46%
Total Carbohydrate 40g	13%
Dietary Fiber 3g	12%
Sugars 8g	
Protein 22g	
Vitamin D -	
Calcium -	
Iron -	
Potassium -	

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Edit this Food



Calories 500 Fat 29g Protein 22g

Serving Size 231g

Nutrition Contents	% of Daily Value
Sugar 8g	Calcium 6%
Carbohydrates 40g	Iron 45%
Trans Fat 0g	Vitamin A 0%
Saturated Fat 5g	Vitamin C 4%
Cholesterol 5mg	
Fibre 3g	
Sodium 1110mg	

Nutrition Facts

Serving Size 1 burger (239g)

Amount Per Serving
Calories 500

% Daily Values*	
Total Fat 26g	40%
Saturated Fat 11g	55%
Trans Fat 0.5g	
Cholesterol 70mg	23%
Sodium - 1,420 mg	
Total Carbohydrate 41g	14%
Dietary Fiber 1g	4%
Sugars 8g	
Protein 25g	
Vitamin D -	
Calcium -	
Iron -	
Potassium -	

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Edit this Food

Beyond Meat Sausage & Egger®

English Muffin

Sausage & Veggie

Calories **540** Fat **33g** Protein **28g**

Serving Size **195g**

Nutrition Contents

% of Daily Value

Sugar **4g**

Calcium **15%**

Carbohydrates **34g**

Iron **50%**

Trans Fat **0.30g**

Vitamin A **20%**

Saturated Fat **12g**

Vitamin C **0%**

Cholesterol **205mg**

Fibre **3g**

Sodium **680mg**



Sausage & Egger®

English Muffin

Calories **530** Fat **34g** Protein **24g**

Serving Size **185g**

Nutrition Contents

% of Daily Value

Sugar **5g**

Calcium **30%**

Carbohydrates **34g**

Iron **30%**

Trans Fat **0g**

Vitamin A **20%**

Saturated Fat **12g**

Vitamin C **0%**

Cholesterol **245mg**

Fibre **1g**

Sodium **720mg**



NUTRITION SECURITY HEALTH PROMOTION – LOCAL

Diet Approaches to Increase Lentil Consumption in Youth (DAILY): Knowledge, beliefs and barriers affecting pulse consumption

Lentil, an inexpensive plant-based meat alternative

- do not require pre-soaking and are a versatile
- nutritious addition when cooking.

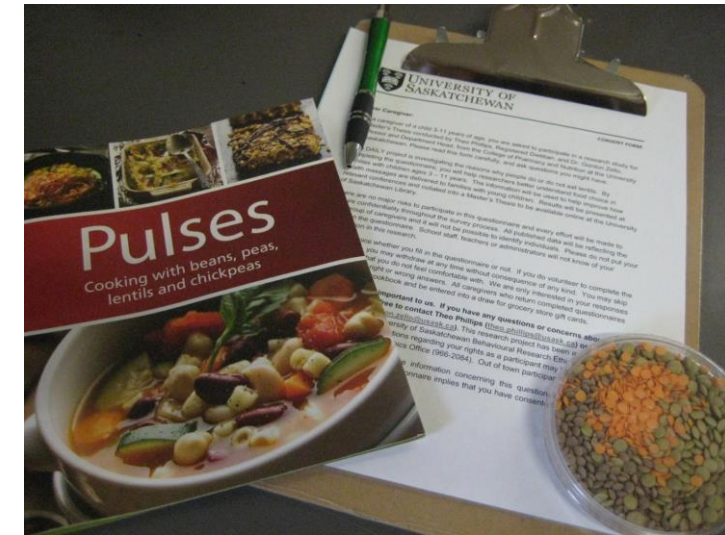
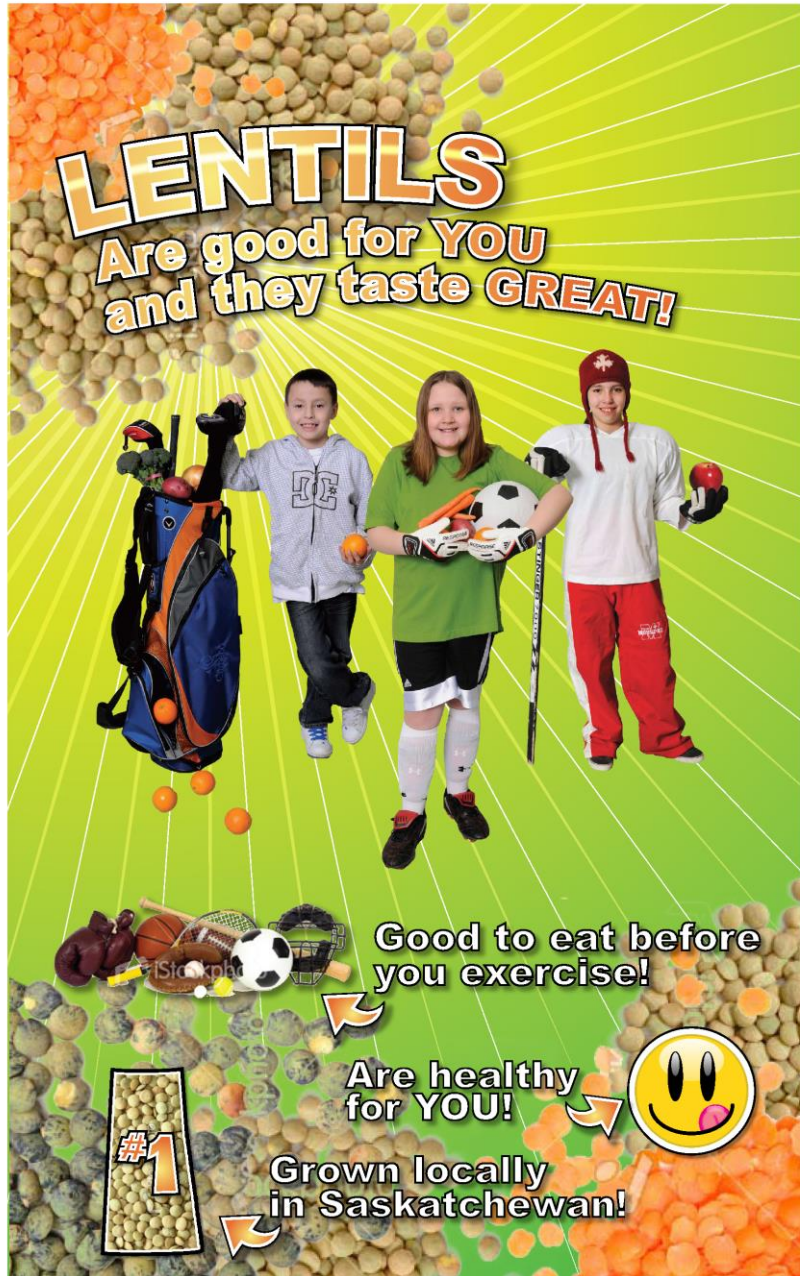
Lentil (and pulse) consumption is low in many countries (healthy).

Children are future consumers of lentils (pulses)

DAILY project examined

- questionnaire given to caregivers
- benefits and barriers to lentil consumption
- nutrition knowledge of pulse foods
- current lentil consumption and demographics

***Increase consumption of pulse foods
as a vehicle to combat
local and global food insecurity***



NUTRITION SECURITY HEALTH PROMOTION – GLOBAL

Linking Agro-food Systems and Community Equity for Food Security in Rural Ethiopia

College of Pharmacy and Nutrition
College of Agriculture and Bioresources
University of Saskatchewan

Hawassa University

International Development Research Centre (IDRC), Canadian International
Food Security Research

Improving Fe Status in Adolescent Girls in Bangladesh

College of Pharmacy and Nutrition
College of Agriculture and Bioresources
University of Saskatchewan

BRAC (NGO)



Ameseginalehu

Thank You

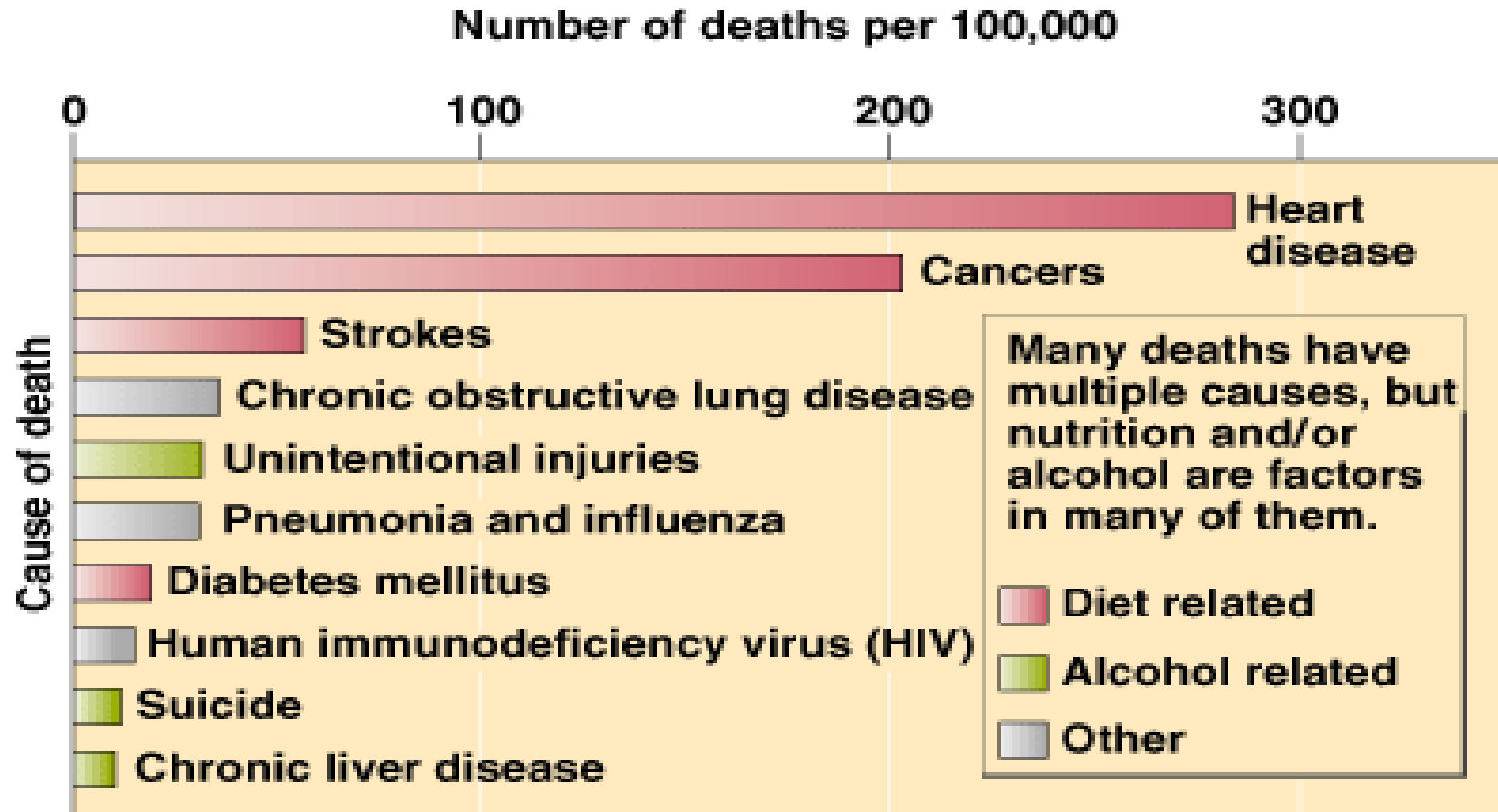


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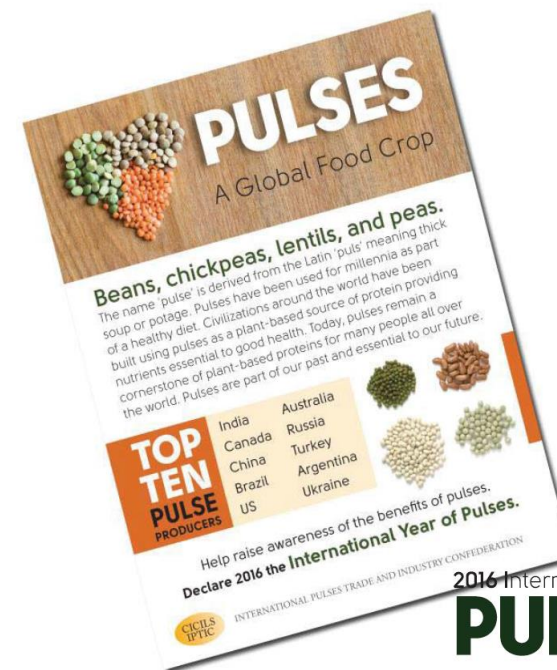
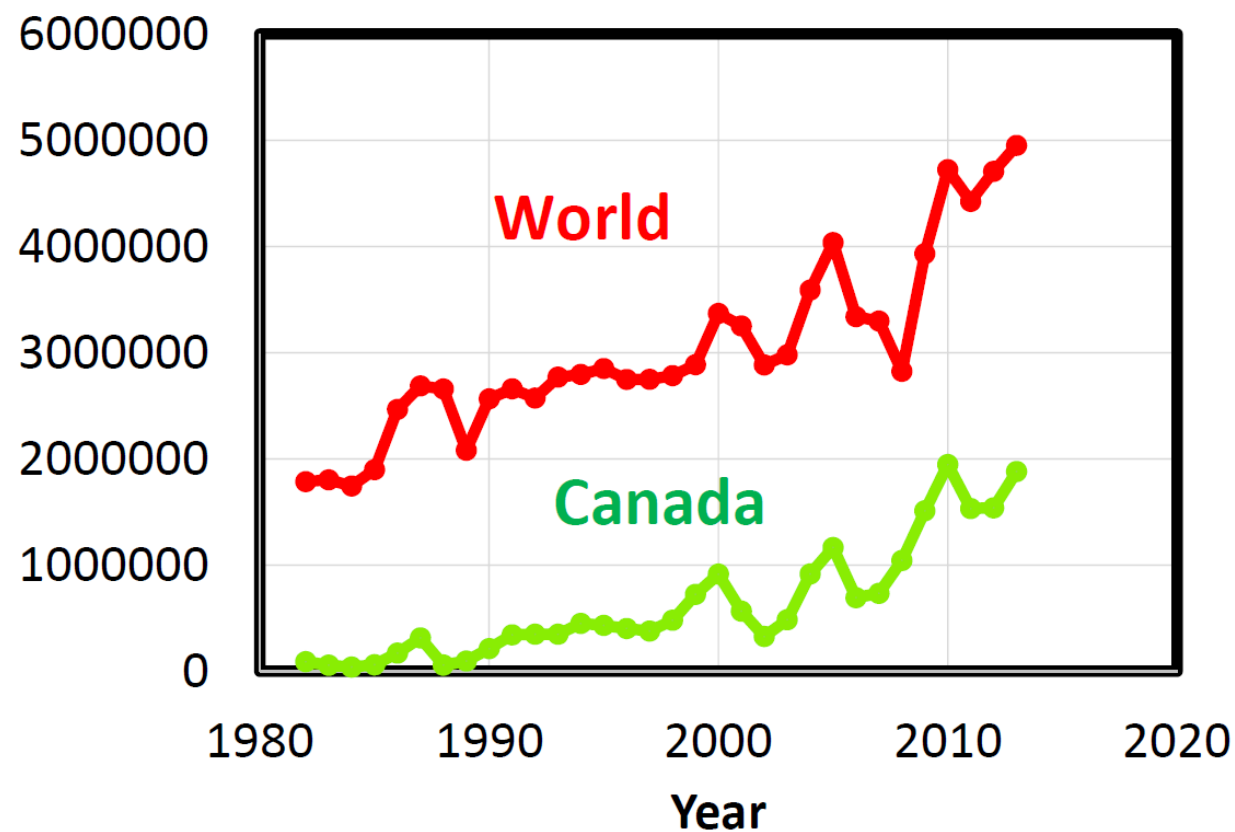




Nutrition & Chronic Diseases (Adult)

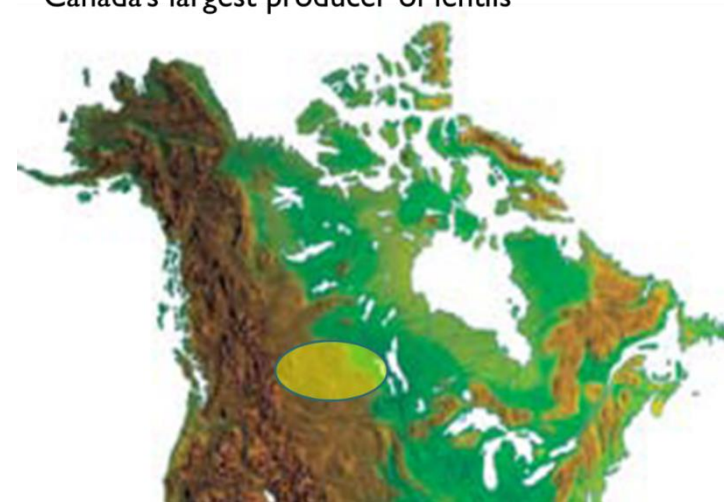


Lentil Production (tonnes)

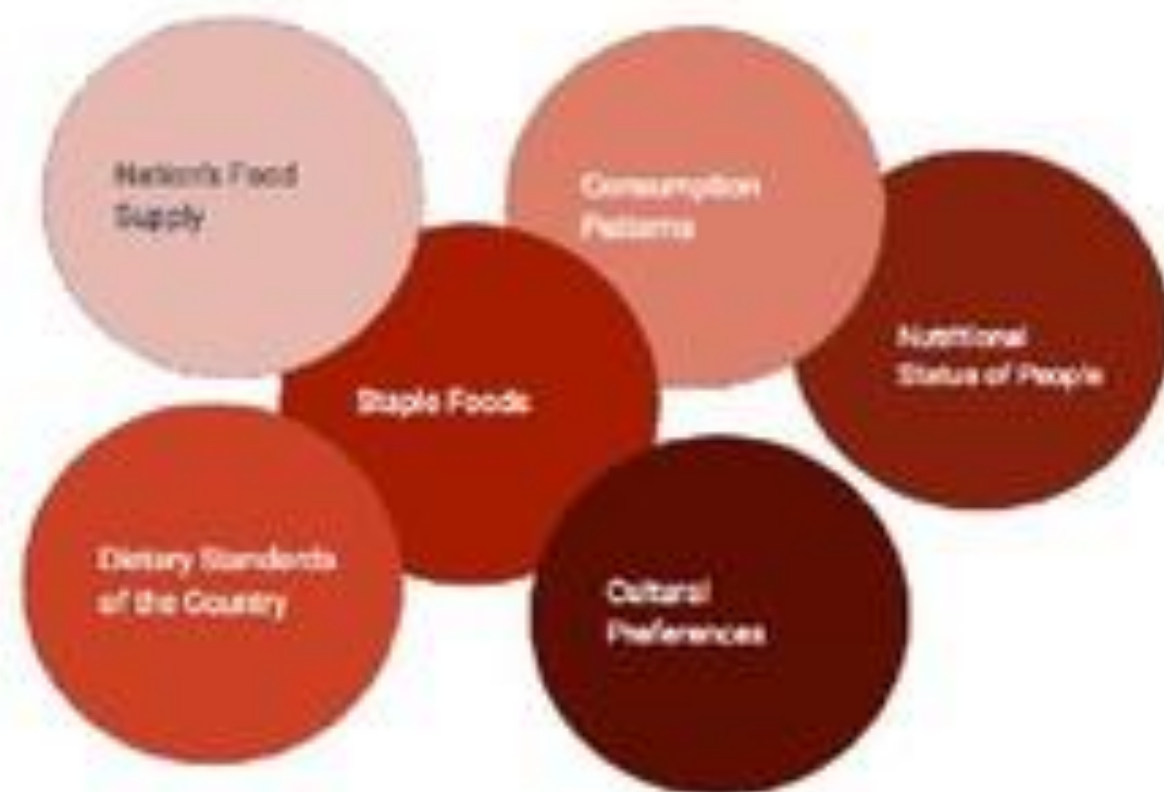


2016 International Year of
PULSES

Canada's largest producer of lentils



Different countries have designed their own food guides based on:



Pulse Based Research



Soccer Studies
Low GI Sports Bar
Sports Recovery
Prebiotic Effects
Barriers to Intake
Sedentary Office Worker

PCOS Clinical Trial
Metabolic Syndrome
Nutr Dense Emg Food
Food Security (Local)
Food Security (Global)



Science &
Research



Healthy Food



Healthy People

