Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. ***Nutritional Requirements: Components of a Healthy Diet***

Essential Nutrients = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

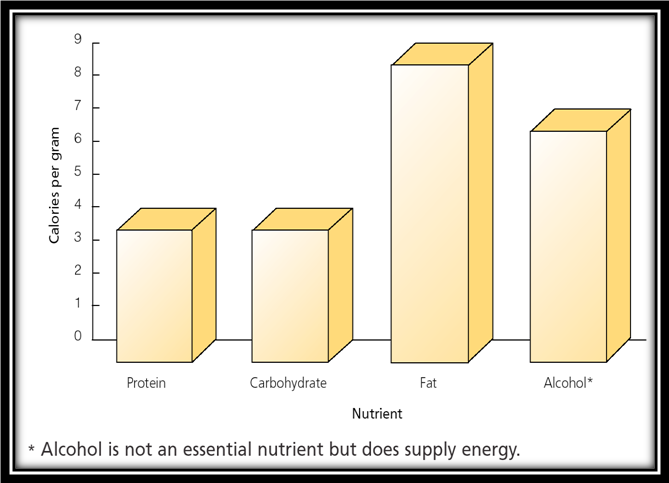
* + Proteins
  + Carbohydrates
  + Fats
  + Vitamins
  + Minerals
  + Water

1. ***Energy from Food***

Three classes of essential \_\_\_\_\_\_\_\_\_\_\_\_\_ supply \_\_\_\_\_\_\_\_\_\_\_\_\_.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = a measure of energy content in food; the amount of heat it takes to raise the temperature of 1 liter of water 1°C; commonly referred to as “calorie”

1. ***Sources of Energy in the Diet***



1. ***Proteins—The Basis of Body Structure***

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = a compound made of amino acids that contains \_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Of \_\_\_\_\_\_\_\_\_\_ common \_\_\_\_\_\_\_\_\_\_\_in foods, nine are ­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Proteins form key parts of the body’s main \_\_\_\_\_\_\_\_\_\_\_\_ components—\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_ —and of blood, enzymes, cell membranes, and some hormones

1. ***Complete and Incomplete Proteins***

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = foods that supply all the essential amino acids in adequate amounts
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_ = foods that supply most but not all essential amino acids
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. ***Recommended Protein Intake***

* Adequate daily intake of protein = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(0.36 gram per pound) of body weight
* Acceptable \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Distribution Range = \_\_\_\_\_\_\_\_ of total daily calories as protein

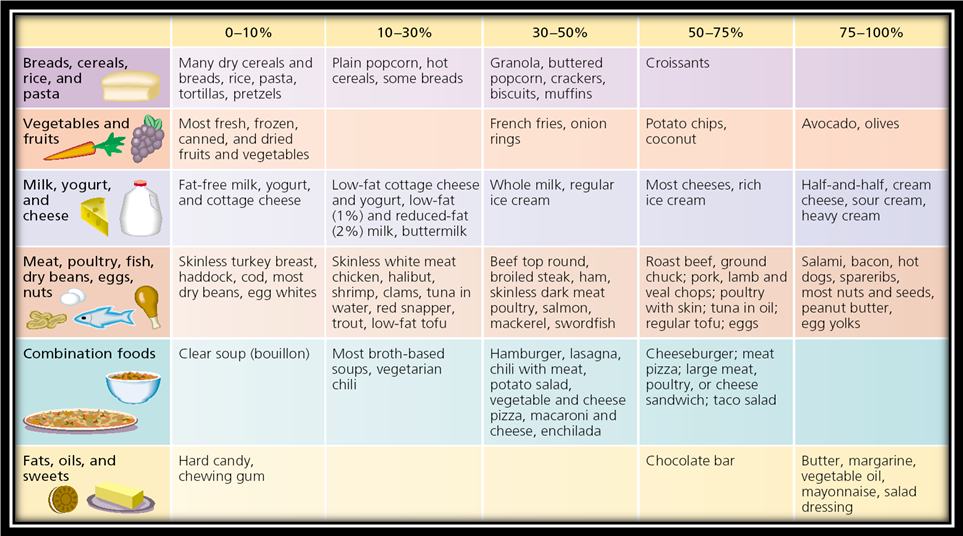
1. ***Fats—Essential in Small Amounts***

* Fats supply \_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_ the body, support and cushion organs, absorb fat-soluble vitamins, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (linoleic acid and alpha-linolenic acid) are key regulators of body process such as the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and the progress of a healthy pregnancy

1. ***Types and Sources of Fats***

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = a fat with no carbon-carbon double bonds; usually solid at room temperature
  + Found primarily in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and palm and coconut oils
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_= a fat with one carbon-carbon double bond; usually liquid at room temperature
  + Found in certain vegetables, nuts, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_= a fat with two or more carbon-carbon double bonds; usually liquid at room temperature
  + Found in certain vegetables, nuts, and vegetable oils and in fatty fish
* *Two key forms of polyunsaturated fats*:
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are produced when the endmost double bond of a polyunsaturated fat occurs three carbons from the end of the fatty acid chain
  + Found primarily in \_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_are produced when the endmost double bond of a polyunsaturated fat occurs six carbons from the end of the fatty acid chain
  + Found primarily in certain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ especially corn, soybean, and cottonseed oils

1. ***Total Fat Content of Foods***



1. ***Fats and Health***

* Fats affect blood \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (LDL) = “bad” cholesterol
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (HDL) = “good” cholesterol
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_raise levels of LDL; trans fats also lower levels of HDL
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ lower levels of LDL
* Fats also affect \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Best choices = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fats and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fats
* Limit intake of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. ***Saturated and Trans Fats: Comparing Butter and Margarine***
2. ***Recommended Fat Intake***

* Adequate daily intake of fat: = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Acceptable Macronutrient Distribution Range = \_\_\_\_\_\_\_\_\_\_\_of total daily calories as fat

1. ***Carbohydrates—An Ideal Source of Energy***

* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of dietary carbohydrate is to supply \_\_\_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_\_\_.
* Some cells, such as those in the \_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_, use only \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_for fuel
* During \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_exercise, \_\_\_\_\_\_\_\_\_\_\_\_\_\_ get most of their energy from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, carbohydrates are \_\_\_\_\_\_\_\_\_\_\_\_ into single sugar \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ such as glucose for \_\_\_\_\_\_\_\_\_\_\_\_\_\_; the liver and muscles take up glucose and store it in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. ***Simple and Complex Carbohydrates***

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ contain one or two sugar units in each molecule
  + Found naturally in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and added to many other foods
  + Include: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_consist of chains of many sugar molecules
  + Found in plants, especially \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Include: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. ***Whole Grains***

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, all grains are whole grains consisting of an inner layer of germ, a middle layer called the endosperm, and an outer layer of bran
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, the germ and bran are often removed, leaving just the starchy endosperm
* Refined carbohydrates usually \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. ***Refined Carbohydrates Versus Whole Grains***

* Whole grains are higher than refined carbohydrates in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Choose foods that have a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_as the \_\_\_\_\_\_\_\_\_\_\_ item on the ingredient list on the \_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. ***Recommended Carbohydrate Intake***

* Adequate daily intake of carbohydrate = \_\_\_\_\_\_\_\_\_\_
* Acceptable Macronutrient Distribution Range = \_\_\_\_\_\_\_\_\_\_\_of total daily calories as carbohydrate
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Food and Nutrition Board: \_\_\_\_\_\_\_\_ or less of total daily calories
* World Health Organization: \_\_\_\_\_\_\_\_\_ or less of total daily calories

1. ***Acceptable Macronutrient Distribution Ranges: Summary***

* \_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_ of total daily calories
* \_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_ of total daily calories
* \_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_ of total daily calories

1. ***Fiber—A Closer Look***

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_ = nondigestible carbohydrates and lignin that are present naturally in plants
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_ = nondigestible carbohydrates isolated from natural sources or synthesized in a lab and added to a food or supplement
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_ = dietary fiber + functional fiber

1. ***Sources of Fiber***

* All plant foods contain \_\_\_\_\_\_\_\_\_\_\_, but processing can remove it
* Good sources of fiber:
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_(especially whole, unpeeled fruits)
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_(especially oat bran)
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (found in some cereals and laxatives)

1. ***Recommended Intake of Fiber***

* Women = \_\_\_\_\_\_\_\_\_\_\_ per day
* Men = \_\_\_\_\_\_\_\_\_\_\_ per day
* Americans currently consume about \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Vitamins—\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_ = organic (carbon-containing) substances needed in small amounts to help promote and regulate chemical reactions and processes in body cells.
* Four vitamins are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (A, D, E, and K)
* Nine vitamins are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (C and the eight B-complex vitamins: thiamin, riboflavin, niacin, vitamin B-6, folate, vitamin B-12, biotin, and pantothenic acid)

1. ***Vitamins***

* Vitamins are abundant in\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; they are also added to some processed foods
* If you consume \_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_ of a particular vitamin, characteristic symptoms of excess or deficiency can develop
* *Vitamins commonly lacking in the American diet*:
  + Vitamin \_\_\_\_
  + Vitamin \_\_\_\_
  + Vitamin \_\_\_\_
  + Vitamin \_\_\_\_

1. ***Minerals***

* If you consume too much or too little of a particular mineral, characteristic symptoms of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* *Minerals commonly lacking in the American diet*:
* Iron = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Calcium = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Potassium = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

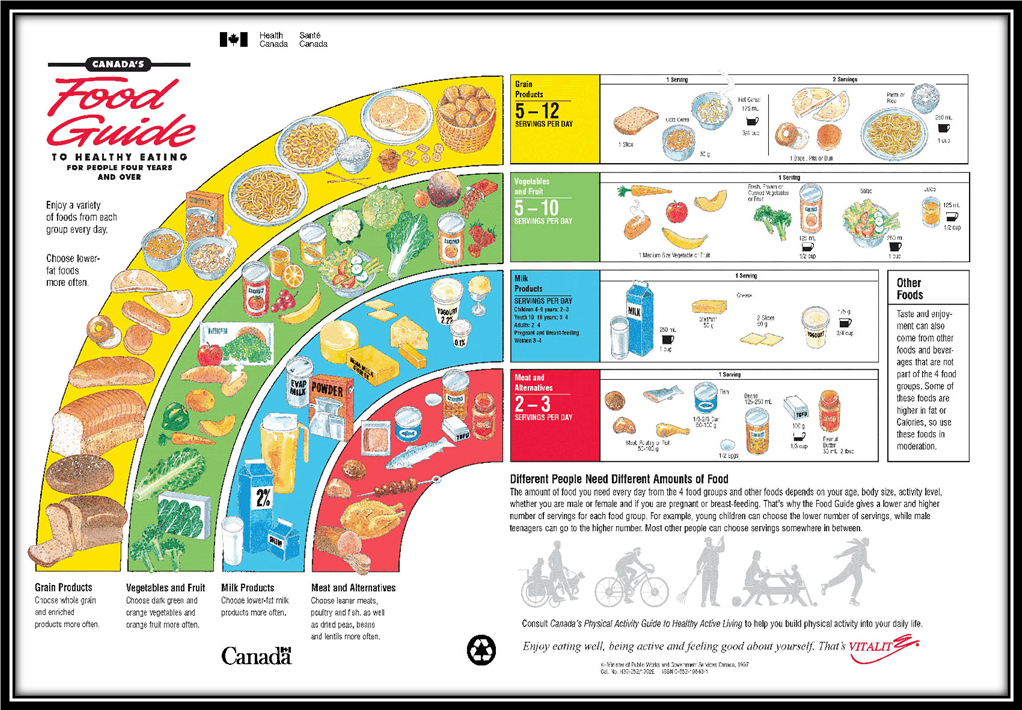
1. ***Water—A Vital Component***

* Human body is composed of about \_\_\_\_\_\_\_\_\_\_\_\_; you can live only a few days without water
* Foods and fluids you consume provide \_\_\_\_\_\_\_ of your daily water intake
* Adequate intake to maintain hydration:
  + \_\_\_\_\_\_\_\_\_\_ need to drink about \_\_\_\_ cups of fluid per day
  + \_\_\_\_\_\_\_\_\_\_ need to drink about \_\_\_\_ cups of fluid per day
  + Drink in response to \_\_\_\_\_\_\_; consume additional fluids for \_\_\_\_\_\_\_\_

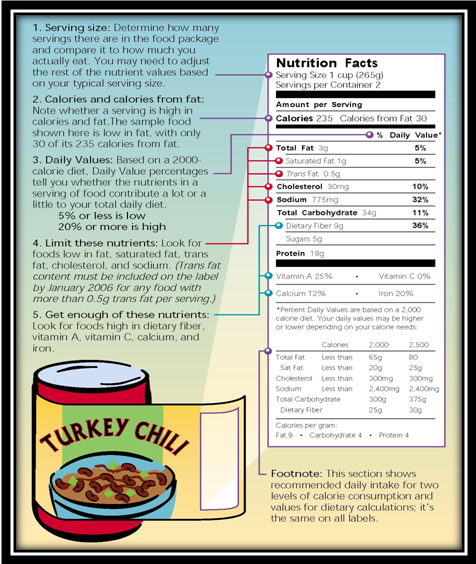
1. ***Should You Take Supplements?***

* The Food and Nutrition Board recommends supplements only for certain groups:
  + \_\_\_\_\_\_\_\_\_\_\_ for women capable of becoming pregnant (400 µg/day)
  + \_\_\_\_\_\_\_\_\_\_\_ for people over age 50 (2.4 mg/day)
* Other possible situations for supplements:
  + Vitamin C for \_\_\_\_\_\_\_\_\_\_\_\_\_
  + Iron for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Vitamin K for \_\_\_\_\_\_\_\_\_\_\_\_\_
  + People with certain special health cancer

1. ***Canada’s Food Guide***



1. ***Food Labels***



Read labels to learn more about your food choices.

1. ***Dietary Supplements***

* May contain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Not \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the way drugs are by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in terms of testing and manufacture
* May interact with\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. ***Dietary Supplements***

