

CONCEPT REVIEW
25

FOOD AND NUTRIENTS

PAGES 160 TO 166

Complete this concept review handout and keep it as a record of what you have learned.

DEFINITIONS

- Food is any substance that is ingested and sustains life.

- A nutrient is a substance found in food that is used by the body to meet important needs.

NUTRIENTS

Nutrient	Function	Sources
Proteins	<ul style="list-style-type: none"> ● <u>Build and repair cells and tissues.</u> ● <u>Provide energy.</u> 	<ul style="list-style-type: none"> ● <u>Dairy products, meat, fish, eggs, nuts, legumes, tofu</u>
Carbohydrates	<ul style="list-style-type: none"> ● <u>The body's main source of energy</u> 	<ul style="list-style-type: none"> ● <u>Monosaccharides and disaccharides: fruits and fruit juices, pastries, sweets, granulated sugar, etc.</u> ● <u>Polysaccharides (starch): breads, cereals, pasta, potatoes, rice, etc.</u>
Fats	<ul style="list-style-type: none"> ● <u>Provide energy.</u> ● <u>Protect organs and insulate the body from the cold.</u> ● <u>The building blocks of hormones and cell membranes.</u> 	<ul style="list-style-type: none"> ● <u>Vegetable oils, butter, French fries, croissants, non-skim dairy products, fatty fish, etc.</u>
Water	<ul style="list-style-type: none"> ● <u>Transports nutrients and waste products.</u> ● <u>Regulates body temperature.</u> ● <u>Is essential in numerous chemical reactions in the body.</u> 	<ul style="list-style-type: none"> ● <u>Fruits and fruit juice, soups, milk, energy drinks, vegetables and vegetable juice, etc.</u>



NUTRIENTS (CONT.)

Nutrient	Function	Sources
<u>Vitamins</u>	<ul style="list-style-type: none"> • <u>Contribute to chemical reactions.</u> • <u>Help in energy production.</u> • <u>Help fight off infections.</u> • <u>Repair damaged tissue, etc.</u> 	<ul style="list-style-type: none"> • <u>Fruits, vegetables, whole grains, dairy products</u>
<u>Minerals</u>	<ul style="list-style-type: none"> • <u>Maintain fluid balance in the body.</u> • <u>Help muscles contract.</u> • <u>Build tissue.</u> • <u>Transport oxygen in the blood, etc.</u> 	<ul style="list-style-type: none"> • <u>Dairy products, legumes, fish and other seafood, fruits, vegetables</u>

AVERAGE ENERGY CONTENT IN NUTRIENTS

Nutrients	Energy content	
	kJ/g	Cal/g
Carbohydrates	17	4
Fats	37	9
Proteins	17	4
Water	Nil	Nil
Vitamins	Nil	Nil
Minerals	Nil	Nil

RECOMMENDATIONS FROM CANADA'S FOOD GUIDE FOR 14- TO 18-YEAR-OLDS

Food groups	Number of servings per day		Servings
	Females	Males	
Fruits and vegetables	7	8	1 orange 125 mL juice 250 mL lettuce 125 mL of broccoli
Grain products	6	7	1 slice of bread 125 mL rice 30 g cold cereal
Milk and alternatives	3-4	3-4	250 mL milk 50 g cheese 175 g yogurt
Meat and alternatives	2	3	75 g fish, lean meat or cooked poultry 2 eggs

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