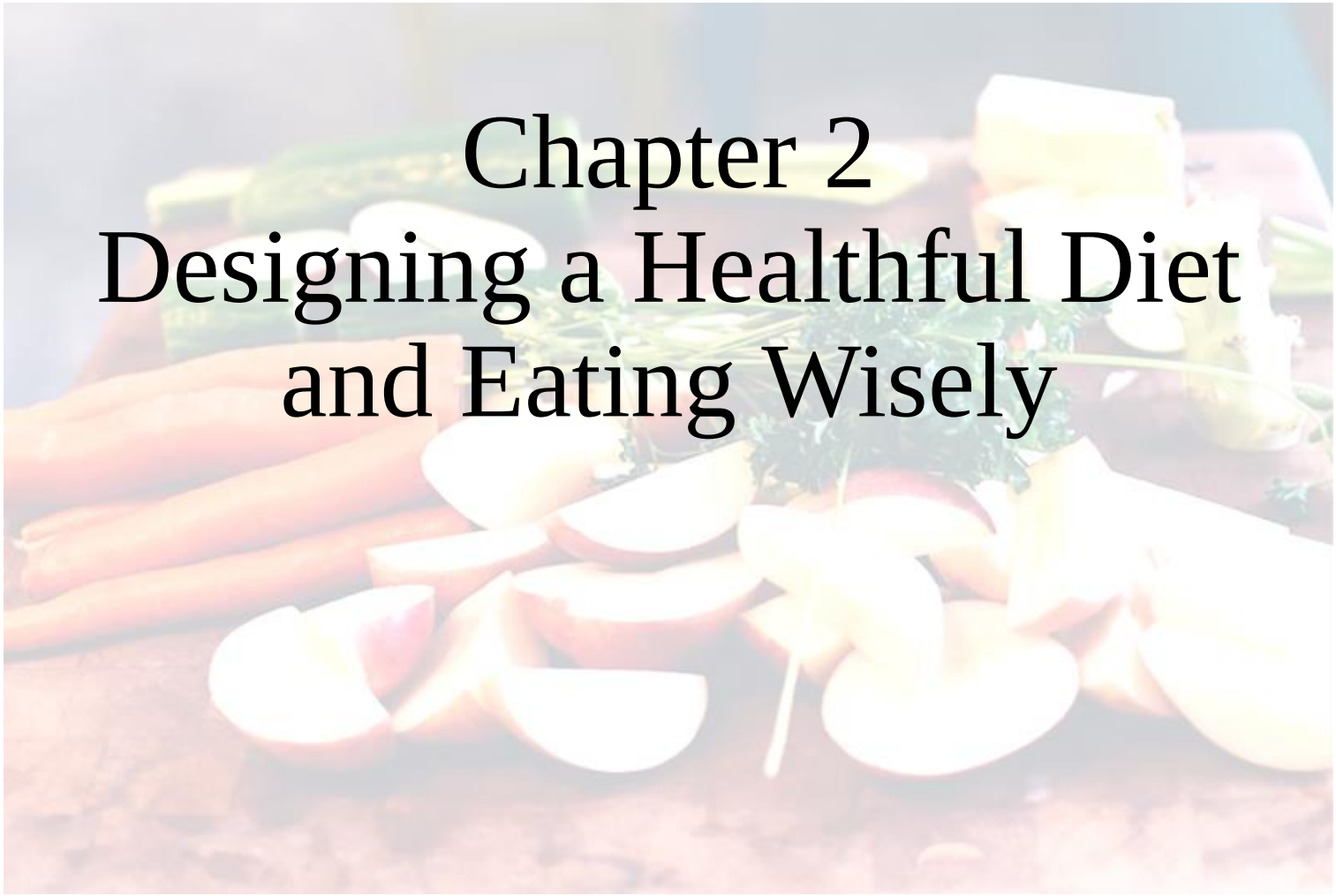


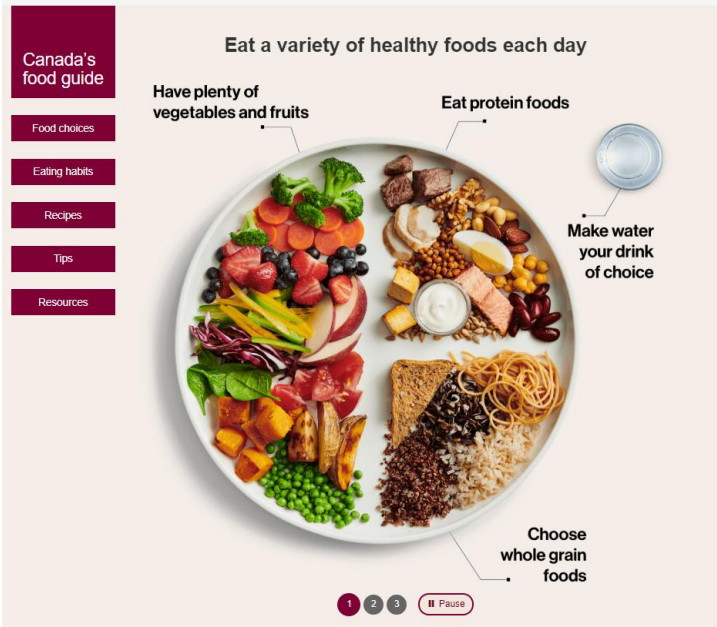
Chapter 2
Designing a Healthful Diet and Eating Wisely

What is a Healthful Diet?

- **A healthful diet** is:
  - Adequate: Provides enough energy, nutrients, and fiber to support a person's health
    - A diet adequate in one area can still be inadequate in another
    - A diet adequate for one person may not be adequate for another
  - Moderate: Contains the right amounts of foods for maintaining proper weight and nutrition
  - Balanced: Contains the right combinations of foods to provide the proper proportions of nutrients
  - Varied: Eating many different foods from all food groups on a regular basis

Tools for Designing a Healthful Diet

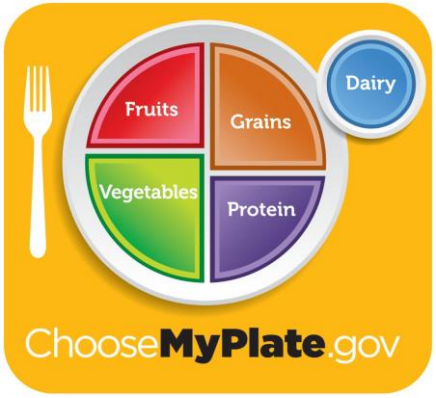
- Canada's Food Guide
  - Eat plenty of vegetables and fruits, whole grain foods and protein foods. Choose protein foods that come from plants more often
  - Limit highly processed foods. If you choose these foods, eat them less often and in small amounts.
  - Make water your drink of choice
  - **Use food labels**
  - Beware that food marketing can influence your choices



Canada's Food Guide 2020

Tools for Designing a Healthful Diet

- MyPlate & Food Groups
  - Visual representation of the USDA Food Patterns
  - Released in 2011
  - An interactive, personalized guide that can be accessed on the Internet



Grains

Make half your grains whole. At least half of the grains you eat each day should come from whole-grain sources.

Eat at least 3 oz of whole-grain bread, cereal, crackers, rice, or pasta every day.

Whole-grain foods provide fiber-rich carbohydrates, riboflavin, thiamin, niacin, iron, folate, zinc, protein, and magnesium.

Vegetables

Vary your veggies. Eat a variety of vegetables and increase consumption of dark-green and orange vegetables, as well as dry beans and peas.

Eat at least 2½ cups of vegetables each day.

Vegetables provide fiber and phytochemicals, carbohydrates, vitamins A and C, folate, potassium, and magnesium.

Fruits

Focus on fruits. Eat a greater variety of fruits (fresh, frozen, or dried) and go easy on the fruit juices.

Eat at least 1½ cups of fruit every day.

Fruits provide fiber, phytochemicals, vitamins A and C, folate, potassium, and magnesium.

Dairy Foods

Get your calcium-rich foods. Choose low-fat or fat-free dairy products, such as milk, yogurt, and cheese. People who can't consume dairy foods can choose lactose-free dairy products or other sources, such as calcium-fortified juices and soy and rice beverages.

Get 3 cups of low-fat dairy foods, or the equivalent, every day.

Dairy foods provide calcium, phosphorus, riboflavin, protein, and vitamin B_{12} and are often fortified with vitamins D and A.

Protein Foods

Go lean with protein. Choose low-fat or lean meats and poultry. Switch to baking, broiling, or grilling more often, and vary your choices to include more fish, processed soy products, beans, nuts, and seeds. Legumes, including beans, peas, and lentils, are included in both the protein and the vegetable groups.

Eat about 5½ oz of lean protein foods each day.

These foods provide protein, phosphorus, vitamin B_6, vitamin B_{12}, magnesium, iron, zinc, niacin, riboflavin, and thiamin.

Tools for Designing a Healthful Diet

- Mediterranean Diet
  - Olive oil is the primary fat
  - Daily foods are grains, legumes, nuts, vegetables, cheese, and yogurt
    - Eggs poultry, fish, and sweets are eaten weekly
    - Red meat is only eaten monthly
  - Wine is included in moderation

Food Labels

- Five components listed on a food label:
  - Statement of identity
  - Net contents of the package
  - Ingredient list
  - Name and address of the food manufacturer, packer, or distributor
  - Nutrition information

Nutrition Labels – Can they be Misleading?

- Serving Size
- Calories per serving
- Nutrition
- List
- Footnotes

Nutrition Facts / Valeur nutritive

Per 1/4 box (56 g) / pour 1/4 de boîte (56 g)
About 3/4 cup prepared / environ 3/4 de tasse préparée

Amount / Teneur	Dry Mix / Poudre	Prepared† / Préparée†
Calories / Calories	210	240
	% Daily Value / % valeur quotidienne	
Fat / Lipides 2 g*	3 %	7 %
Saturated / saturés 1 g + Trans / trans 0 g	4 %	7 %
Cholesterol / Cholestérol 5 mg	2 %	2 %
Sodium / Sodium 370 mg	15 %	17 %
Carbohydrate / Glucides 40 g	13 %	14 %
Fibre / Fibres 1 g	4 %	4 %
Sugars / Sucres 7 g		
Protein / Protéines 7 g		
Vitamin A / Vitamine A	0 %	6 %
Vitamin C / Vitamine C	0 %	0 %
Calcium / Calcium	8 %	10 %
Iron / Fer	10 %	10 %
Thiamine / Thiamine	20 %	20 %
Riboflavin / Riboflavine	15 %	20 %
Niacin / Niacine	8 %	8 %
Folate / Folate	30 %	30 %

* Amount in dry mix / Quantité dans la préparation sèche.
† Prepared using 1 Tbsp. non-hydrogenated margarine and 1/3 cup skim milk. / Préparée avec 1 c. à soupe de margarine non hydrogénée et 1/3 de tasse de lait écrémé.

Nutrition Facts Panel

- Knowing the difference between serving size and servings per container is key
  - **Serving size** is used to calculate the ‘Nutrition Facts’ information
  - **Servings per container** indicates how many servings are in the entire container

- Percent Daily Values (%DV)
  - Describes how much a serving of food contributes to your total intake of a nutrient
  - Based on a diet of 2,000 Calories per day
  - These values can be misleading because all individuals have unique nutritional needs

FDA-Approved Terms

TABLE 2.1 U.S. Food and Drug Administration (FDA)–Approved Nutrient-Related Terms and Definitions

Nutrient	Claim	Meaning
Energy	Calorie free	Less than 5 kcal per serving
	Low Calorie	40 kcal or less per serving
	Reduced Calorie	At least 25% fewer kcal than reference (or regular) food
Fat and Cholesterol	Fat free	Less than 0.5 g of fat per serving
	Low fat	3 g or less fat per serving
	Reduced fat	At least 25% less fat per serving than reference food
	Saturated fat free	Less than 0.5 g of saturated fat **AND** less than 0.5 g of *trans* fat per serving
	Low saturated fat	1 g or less saturated fat and less than 0.5 g *trans* fat per serving **AND** 15% or less of total kcal from saturated fat
	Reduced saturated fat	At least 25% less saturated fat **AND** reduced by more than 1 g saturated fat per serving as compared to reference food
	Cholesterol free	Less than 2 mg of cholesterol per serving **AND** 2 g or less saturated fat and *trans* fat combined per serving
	Low cholesterol	20 mg or less cholesterol **AND** 2 g or less saturated fat per serving
	Reduced cholesterol	At least 25% less cholesterol than reference food **AND** 2 g or less saturated fat per serving
Fiber and Sugar	High fiber	5 g or more fiber per serving*
	Good source of fiber	2.5 g to 4.9 g fiber per serving
	More or added fiber	At least 2.5 g more fiber per serving than reference food
	Sugar free	Less than 0.5 g sugars per serving
	Low sugar	Not defined; no basis for recommended intake
	Reduced/less sugar	At least 25% less sugars per serving than reference food
	No added sugars or without added sugars	No sugar or sugar-containing ingredient added during processing

FDA-Approved Terms

TABLE 2.1 U.S. Food and Drug Administration (FDA)–Approved Nutrient-Related Terms and Definitions *(Continued)*

Nutrient	Claim	Meaning
Sodium	Sodium free	Less than 5 mg sodium per serving
	Very low sodium	35 mg or less sodium per serving
	Low sodium	140 mg or less sodium per serving
	Reduced sodium	At least 25% less sodium per serving than reference food
Relative Claims	Free, without, no, zero	No or a trivial amount of given nutrient
	Light (lite)	This term can have three different meanings: (1) a serving provides one-third fewer kcal than or half the fat of the reference food; (2) a serving of a low-fat, low-Calorie food provides half the sodium normally present; or (3) lighter in color and texture, with the label making this clear (for example, light molasses)
	Reduced, less, fewer	Contains at least 25% less of a nutrient or kcal than reference food
	More, added, extra, or plus	At least 10% of the Daily Value of nutrient as compared to reference food (may occur naturally or be added); may be used only for vitamins, minerals, protein, dietary fiber, and potassium
	Good source of, contains, or provides	10% to 19% of Daily Value per serving (may not be used for carbohydrate)
	High in, rich in, or excellent source of	20% or more of Daily Value per serving for protein, vitamins, minerals, dietary fiber, or potassium (may not be used for carbohydrate)

*High-fiber claims must also meet the definition of low fat; if not, then the level of total fat must appear next to the high-fiber claim.

Data adapted from: "Food Labeling Guide" (U.S. Food and Drug Administration).

Nutrient Density

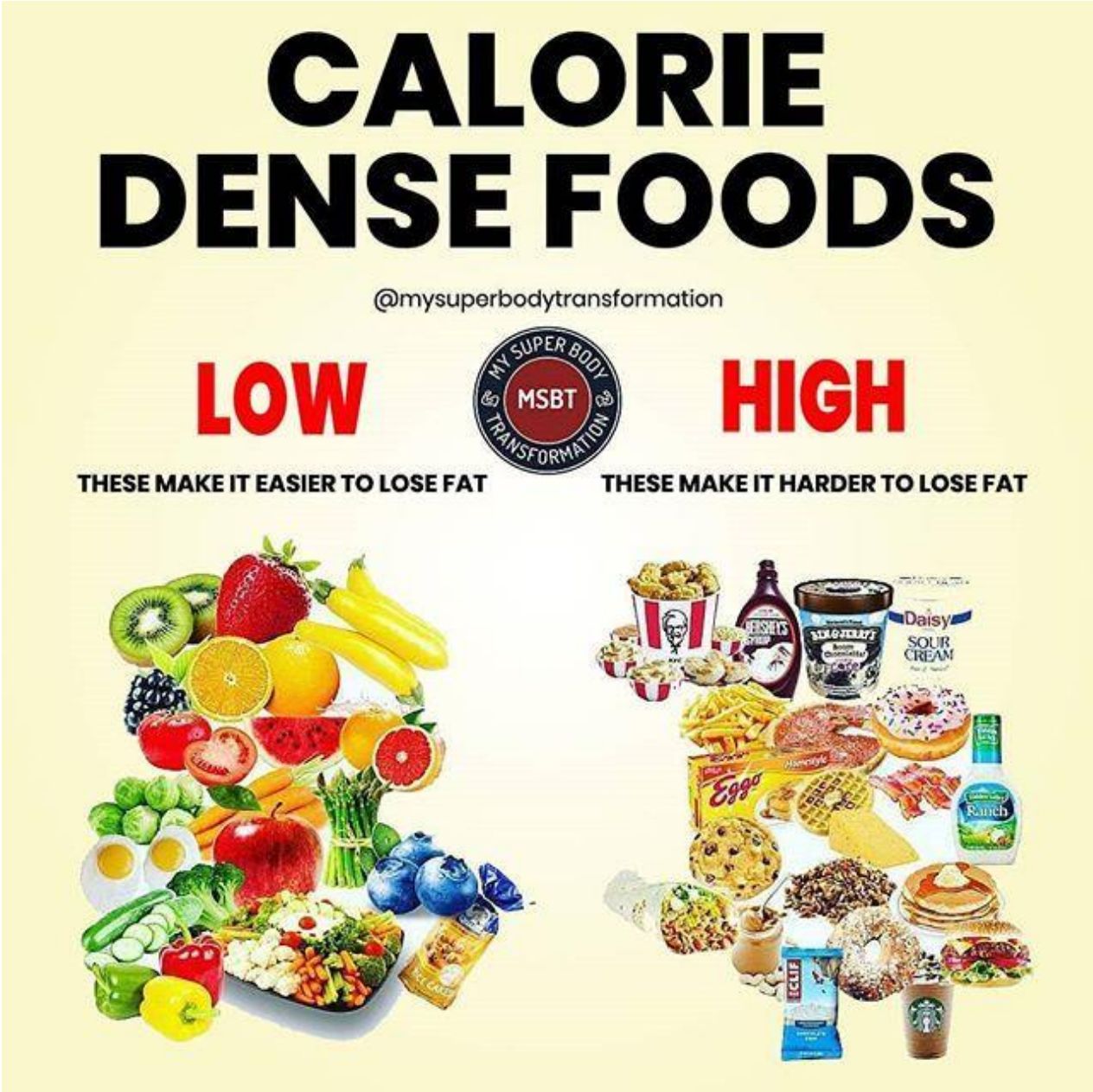
- **High Nutrient Density**: Foods rich and varied in nutrients – generally good for you
- High Nutrient: Whole wheat
- Low Nutrient: White bread
- **High Calorie Density**: Foods high in calories and often low in nutrients – generally not good for you

Calorie Density

- **High Calorie Density**: Foods with high number of calories per grams. Often low in nutritional value. Generally, not good for you.

Examples

- Pop
- Candy
- Chips
- Dessert foods
- Fried foods



Comparing Nutrient Density

TABLE 2.3 Ways to Incorporate the Dietary Guidelines for Americans into Your Daily Life

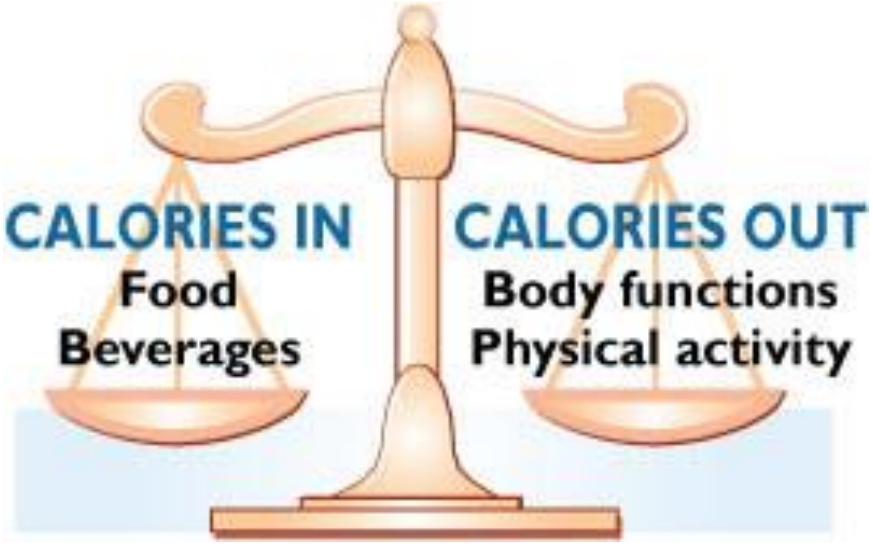
If You Normally Do This	Try Doing This Instead
Watch television when you get home at night	Do 30 minutes of stretching or lifting of hand weights in front of the television
Drive to the store down the block	Walk to and from the store
Go out to lunch with friends	Take a 15- or 30-minute walk with your friends at lunchtime 3 days each week
Eat white bread with your sandwich	Eat whole-wheat bread or some other bread made from whole grains
Eat white rice or fried rice with your meal	Eat brown rice or try wild rice
Choose cookies or a candy bar for a snack	Choose a fresh nectarine, peach, apple, orange, or banana for a snack
Order french fries with your hamburger	Order a green salad with low-fat salad dressing on the side
Spread butter or margarine on your white toast each morning	Spread fresh fruit compote on whole-grain toast
Order a bacon double cheeseburger at your favorite restaurant	Order a turkey burger or grilled chicken sandwich without the cheese and bacon, and add lettuce and tomato
Drink non-diet soft drinks to quench your thirst	Drink iced tea, ice water with a slice of lemon, seltzer water, or diet soft drinks
Eat salted potato chips and pickles with your favorite sandwich	Eat carrot slices and crowns of fresh broccoli and cauliflower dipped in low-fat or nonfat Ranch dressing

The Concept of Empty Calories

- **Empty Calories** are Calories from solid fats and/or added sugars that provide few or no nutrients
- USDA recommends limiting empty Calories to a small number that fit your nutrient needs, depending on your
  - Age
  - Gender
  - Level of physical activity

Energy Budget/Balance

- **Calorie Surplus** – on average consumer MORE calories than you burn – results in weight gain (muscle and/or fat).
- **Calorie Deficit** – on average consumer LESS calories than you burn – results in weight loss (muscle and/or fat).
- **Balanced Calorie Budget -** on average consumer equal calories to what you burn – results in maintaining weight.



Food Portions Have Increased

Nutritional Value of Fast Foods

TABLE 2.4 Nutritional Value of Selected Fast Foods

Menu Item	kcal	Fat (g)	Fat (% kcal)
McDonald's			
Hamburger	250	9	32
Cheeseburger	300	12	36
Quarter Pounder with Cheese	520	26	45
Big Mac	550	29	47
French fries, small	230	11	43
French fries, medium	380	19	45
French fries, large	500	25	45
Coke, large	310	0	0
McCafe Chocolate Shake (small)	560	16	26
McCafe Chocolate Shake (large)	880	24	25
Burger King			
Hamburger	260	9	31
Cheeseburger	300	14	42
Whopper	670	40	54
Double Whopper	900	57	57
Bacon Double Cheeseburger	520	31	54
French fries, small	340	15	40
French fries, medium	410	18	40
French fries, large	500	22	40

Healthy Eating Habits

- 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 part of healthy eating
- Eat meals with others

Healthy Restaurant Choices

- Eating in restaurants often involves high-fat foods and large portion sizes
- Avoid
  - All-you-can-eat buffets
  - Breaded and fried foods
  - Cream and cheesy sauces
- Choose
  - Broth-based soups
  - Salads with dressing on the side
  - Lean cuts of meat, vegetarian dishes, and chicken or fish burgers
  - Steamed vegetables instead of potatoes or rice
  - Beverages with few or no Calories
- Skip dessert or have fruit

Influences on Appetite

- Hunger is a basic biological urge, while appetite is a psychological