Unit V – Wellness, Fitness and First Aid

Chapter 6 - Controlling Fat

Section 3 – Special Diets and Evaluating Foods

What You Will Learn to Do

Estimate your body fat content

Objectives

1. Identify the risks of obesity
2. Explore tendencies that encourage fat accumulation
3. Define current and desired state for healthy lifestyle
4. Identify steps that can lead to a lean body fat content
5. Relate food intake and physical activity to weight control

Special Diets

Certain physical conditions, like diabetes and hypoglycemia, call for specific diets with special nutritional needs.

Lifestyle choices like not eating meat, may affect how people meet their nutritional needs.

Diet and High Blood Pressure

High blood pressure (hypertension) is a condition where the force of blood pushing against the blood vessel walls is too high.

People with hypertension need to limit their salt intake by:

- Using herbs instead of salt
- Avoiding salty snacks and processed foods
- Reading labels carefully

Diets for Diabetics

Your body's cells use glucose for energy. Insulin enables glucose to pass from the blood into the cells.

Diabetes mellitus is a condition where the body does not produce or properly use insulin, resulting in too much glucose.

If you have a combination of symptoms indicating diabetes mellitus, you should see a physician.

Diets for Diabetics

Diabetes can usually be controlled, sometimes with daily injections.

It's important for a diabetic person to eat balanced meals, and exercise on a regular schedule.

Diabetics should omit food high in sugar and focus on complex carbohydrates. The American Diabetes Association recommends high fiber, low fat foods.

Obesity is also a factor in one type of diabetes.

Diets and Hypoglycemia

Hypoglycemia (low blood sugar) is a condition where the body produces too much insulin, and glucose may drop dramatically.

Hypoglycemics need to eat several small meals a day instead of three big meals.

Their diet should be rich in complex carbohydrates, low in fat, and they should avoid concentrated sugars.

Vegetarianism

Vegetarians do not eat meat. Some (vegans) don't eat foods that come from animal sources , while others will eat eggs and dairy products.

Vegans must obtain their complete proteins, with the essential amino acids, by combining plant foods like rice and beans.

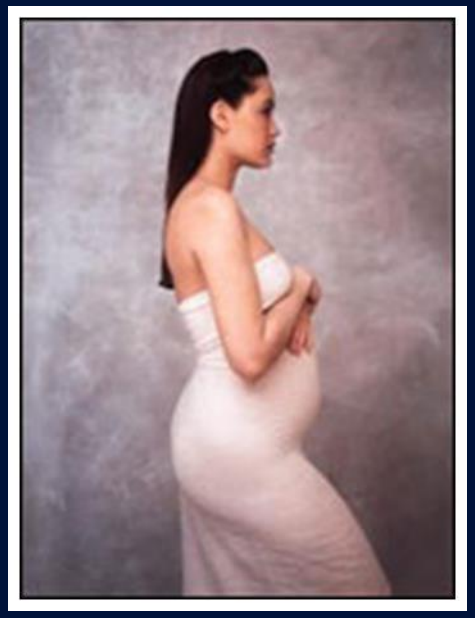
Vegetarianism

Since vegetarians do not eat meat, they are less likely to suffer from heart attacks.

However, in addition to protein, they must make sure they are getting enough vitamins and minerals.

Variety is therefore especially important in a vegetarian diet.

Nutrition and Pregnancy



During pregnancy a woman's diet must provide for her needs and those of the baby.

With an inadequate diet, a mother may give birth to a premature or underweight baby.

A low birth weight baby may be susceptible to disease or slow development.

Nutrition and Pregnancy

Most pregnant women should gain 25-35 pounds. They need to consume more calories and additional nutrients essential to form the baby's cells.

Pregnant teenagers have higher nutritional needs than any other group. Their diets need to supply nutrients for their own continued growth as well as their baby's development, so they are encouraged to gain about 35 pounds.

Diets for Athletes

Athletes should eat a basic well-balanced diet with added calories to accommodate their higher physical activity.

Most calories should come from complex carbohydrates, not high-fat or sugar-rich foods.

During competition, they should increase fluid intake to replace water lost in perspiration.

Diets for Athletes

Marathon runners sometimes practice carbohydrate loading before a race.

This consists of greatly increasing carbohydrates and greatly reducing activity days before a race, in order to store more energy for the muscles.

It may benefit highly conditioned athletes, but for most athletes, a normal diet is best.

Buying Food Wisely

You need knowledge and practice to choose nutrient-dense foods.

Do not be swayed by clever packaging.

Read the labels and other information to evaluate foods.

Food Labels

Nutrition Facts

Serving Size 1 cup (85g) (3 oz.)

Servings per container 2.5

Amount per serving

Calories 45 Calories from Fat 0

	% Daily Value*
Total Fat 0g	0%
Saturated Fat 0g	0%
Cholesterol 0mg	0%
Sodium 55 mg	2%
Total Carbohydrate 10g	3%
Dietary Fiber 3g	12%
Sugars 5g	
Protein 1g	

Vitamin A 360% • Vitamin C 8% • Calcium 2% • Iron 0%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily value may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat. Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate	Less than	300mg	375mg
Dietary Fiber	Less than	25g	30g

Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4

Ingredients: Carrots.

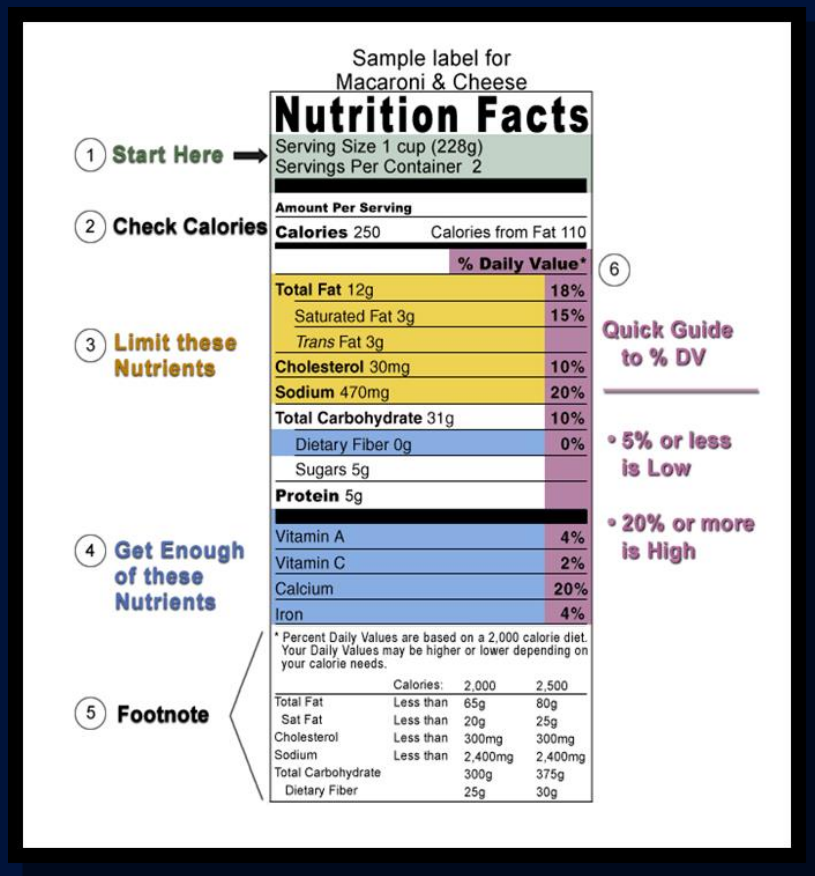
Manufacturers must provide their name, address, a list of certain pieces types of information on a food's label, including:

- Weight of food
- Ingredients by weight
- Number of servings based on the standard for that type of food

Nutrition Information

The Food and Drug Administration also requires that food labels provide:

- Total number of servings
- Number of calories from fat
- Weight of nutrients
- Percentage of daily values



Food Additives

Additives are chemicals added to:

- Prevent spoiling
- Control and improve color and texture
- Replace or add nutrients
- Improve flavor

Food Additives

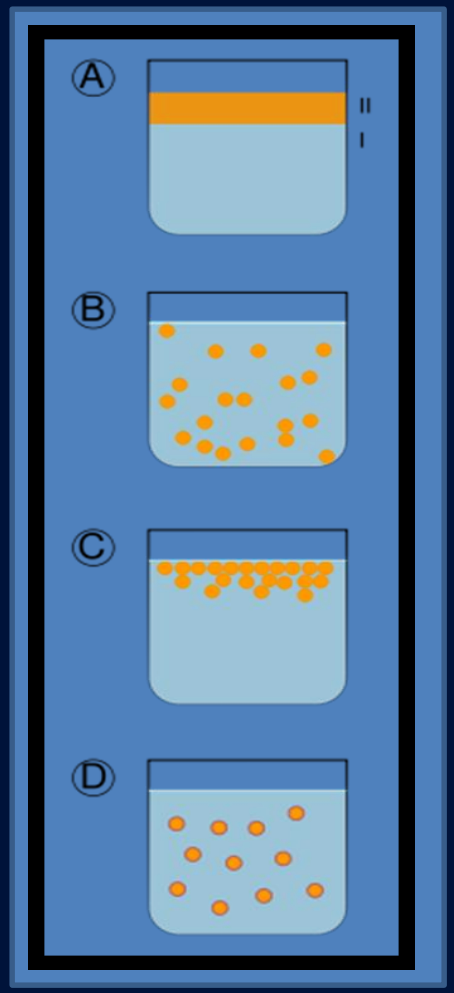
Additives used to prevent spoilage or retain color or texture are called preservatives, and they can:

- Keep peeled and cut fruit from turning brown
- Prevent food poisoning
- Increase the time that foods are safe to eat

When nutrients are added to food to replace those lost in processing, it is enriched.

When vitamins, minerals or proteins are added to food that does not normally contain them, it is fortified.

Food Additives



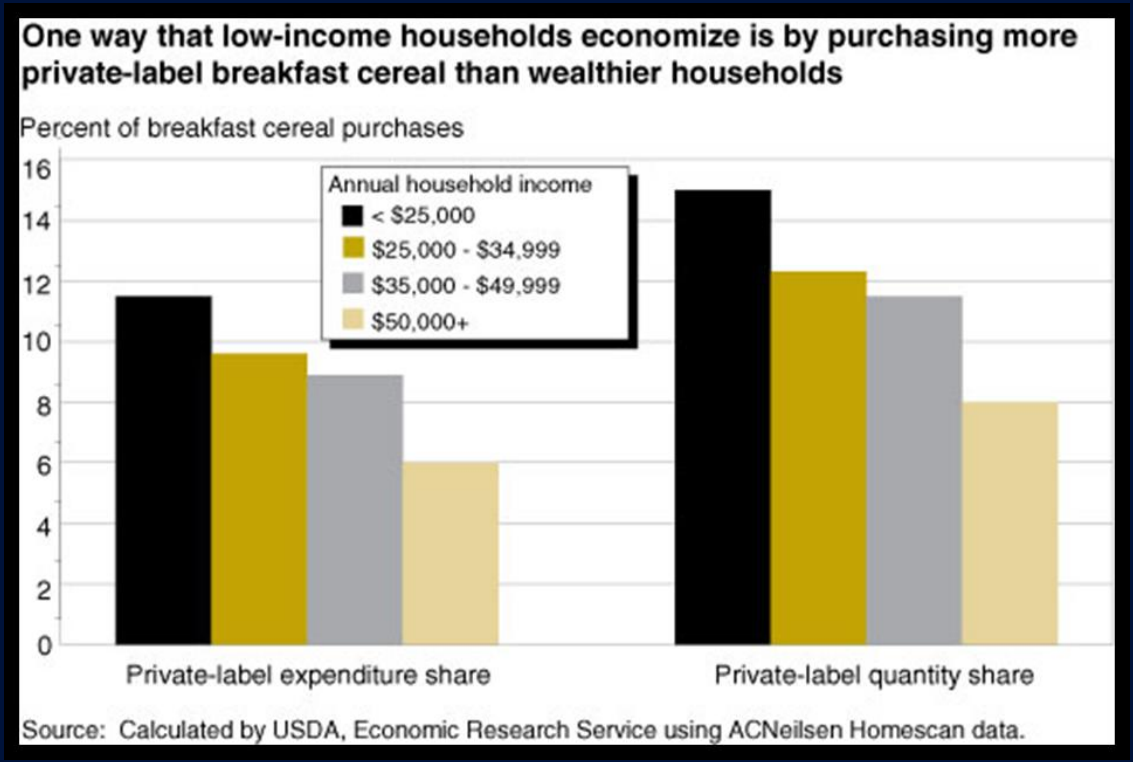
Manufacturers may use additives to improve texture or taste.

A leavening agent makes baked goods rise.

An emulsifier (ih MUL suh fy ur) keeps fats from separating from other ingredients.

Evaluating Foods

Wise shoppers check the nutrient content, price and freshness of foods.



Nutrients

Read packaged food labels carefully, and compare similar foods. Look for:

- Number of calories
- Amount of fat
- Amount of sugar
- Dietary fiber
- Vitamins
- Minerals
- Protein

Nutrition Facts

Per 125 mL (87 g)*

Amount	% Daily Value**
Calories 80	
Fat 0.5 g	**1** %
Saturated 0 g + Trans 0 g	**0** %
Cholesterol 0 mg	
Sodium 0 mg	**0** %
Carbohydrate 18 g	**6** %
Fibre 2 g	**8** %
Sugars 2 g	
Protein 3 g	

Vitamin A	2 %	Vitamin C	10 %
Calcium	0 %	Iron	2 %

Reading a Food Label

Every time you go into a supermarket, you are bombarded with the visual of thousands of food products cleverly designed and packaged to get your attention and make you want to buy them. In addition, before you enter the store, advertisements in all types of media try to convince you to buy.

Instead, you need to objectively compare products to judge their nutritional value and compare pricing.

Reading a Food Label

The US Food and Drug Administration (FDA) requires packaged foods to be labeled with a list of ingredients and standard nutrition information.

Use this information to evaluate products using the steps that follow…

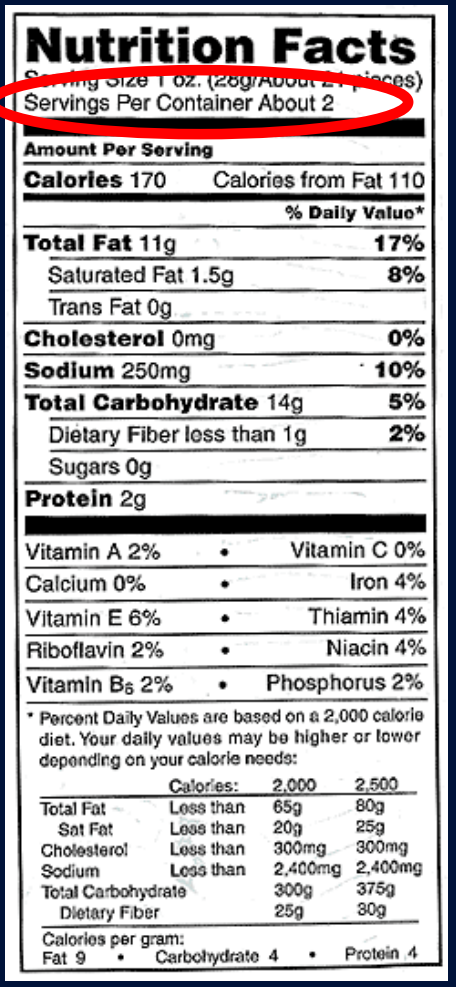
Reading a Food Label

1. Read the ingredients. Be aware of the ingredients that a food contains, and the different terms that could be used.
   - Note that any word that ends with –ose is probably a type of sugar
   - Ingredients are listed in order by weight most to least
   - Ingredients are especially important for anyone who has food allergies

INGREDIENTS: ENRICHED FLOUR (WHEAT FLOUR, NIACIN, REDUCED IRON, THIAMIN MONONITRATE [VITAMIN B_1], RIBOFLAVIN [VITAMIN B_2], FOLIC ACID), CORN SYRUP, SUGAR, SOYBEAN AND PALM OIL (WITH TBHQ FOR FRESHNESS), CORN SYRUP SOLIDS, DEXTROSE, HIGH FRUCTOSE CORN SYRUP, FRUCTOSE, GLYCERIN, CONTAINS 2% OR LESS OF COCOA (PROCESSED WITH ALKALI), POLYDEXTROSE, MODIFIED CORN STARCH, SALT, DRIED CREAM, CALCIUM CARBONATE, CORNSTARCH, LEAVENING (BAKING SODA, SODIUM ACID PYROPHOSPHATE, MONOCALCIUM PHOSPHATE, CALCIUM SULFATE), DISTILLED MONOGLYCERIDES, HYDROGENATED PALM KERNEL OIL, SODIUM STEAROYL LACTYLATE, GELATIN, COLOR ADDED, SOY LECITHIN, DATEM, NATURAL AND ARTIFICIAL FLAVOR, VANILLA EXTRACT, CARNAUBA WAX, XANTHAN GUM, VITAMIN A PALMITATE, YELLOW #5 LAKE, RED #40 LAKE, CARAMEL COLOR, NIACINAMIDE, BLUE #2 LAKE, REDUCED IRON, YELLOW #6 LAKE, PYRIDOXINE HYDROCHLORIDE (VITAMIN B_6), RIBOFLAVIN (VITAMIN B_2), THIAMIN HYDROCHLORIDE (VITAMIN B_1), CITRIC ACID, FOLIC ACID, RED #40, YELLOW #5, YELLOW #6, BLUE #2, BLUE #1.

Reading a Food Label

2. Notice the number of servings per container, which is standardized to be able to compare similar food products.



Nutrition Facts

Serving Size 1 oz. (28g/About 24 pieces)
Servings Per Container About 2

Amount Per Serving

Calories 170	Calories from Fat 110
	% Daily Value*
Total Fat 11g	**17%**
Saturated Fat 1.5g	**8%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 250mg	**10%**
Total Carbohydrate 14g	**5%**
Dietary Fiber less than 1g	**2%**
Sugars 0g	
Protein 2g	

Vitamin A 2%	•	Vitamin C 0%
Calcium 0%	•	Iron 4%
Vitamin E 6%	•	Thiamin 4%
Riboflavin 2%	•	Niacin 4%
Vitamin B_6 2%	•	Phosphorus 2%

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

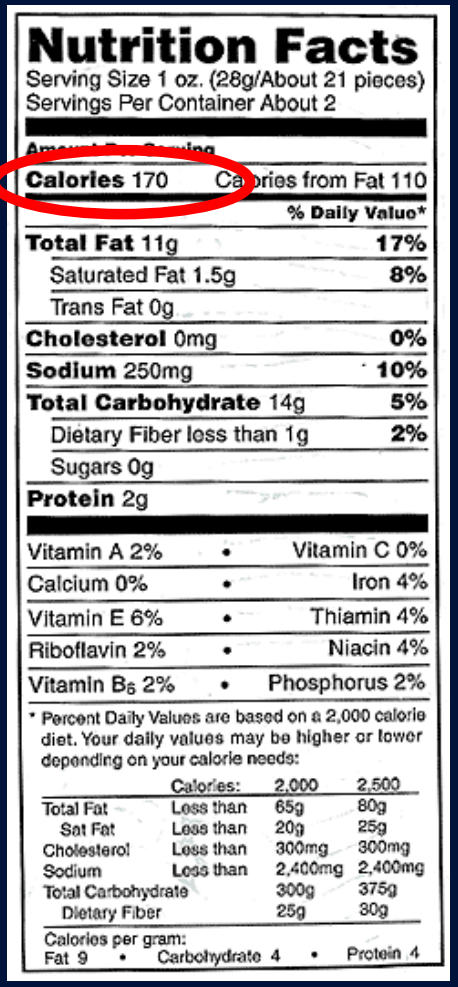
	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

Reading a Food Label

3. Note the calories in one serving. Remember that recommended calorie intake varies by person and their age/sex/weight/BMR and activity level.

   If the number of calories is high and you want to lose weight, perhaps choose another food.



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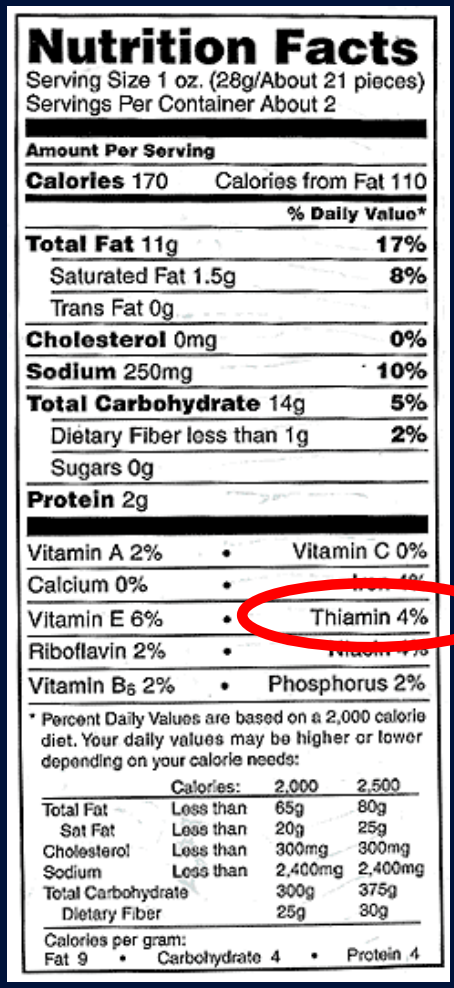
Reading a Food Label

4. Look at percentages of the Daily Values for individual nutrients. In this example, the product provides 4% of the daily recommended allowance of the vitamin Thiamin, based on a standard 2,000 calories/day.

Remember that cholesterol and saturated fat should be limited, so note if these are high.



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Calcium 0%	•	[illegible]	
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Riboflavin 2%	•	[illegible]	
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Reading a Food Label

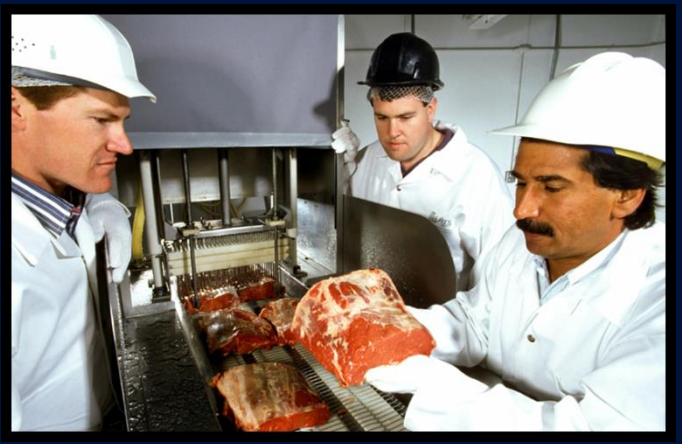
5. Read any health-related descriptions or claims.

The FDA sets standards for use of descriptions such as “high fiber” and “low fat,” so use these for guidance.

Freshness

Many foods, like meat and baked goods, have a date on their package.

This product date is an estimate of how long the product is usable. Reduced prices may be available for products past the date.



Price

Compare unit price (each) or cost per unit of measurement ($/pound or ¢/ounce) to see which item is a better buy.

Two loaves of break with the same nutrients, each cost the same … $1.50

Loaf A is 20 ounces	$1.50/20 = < 8¢ / ounce
Loaf B is 16 ounces	$1.40/16 = >9¢ / ounce

Which loaf is the better buy?

Advertising and Food Choices

Advertising can have a strong influence on food choices.

Special techniques can make products appealing, but the label may indicate that they are really not very nutritious.

Be a smart shopper, and know that the advertisements can easily be misleading.

Conclusion

- The science of nourishing the body is continually evolving with new facts, information and misleading information.
- However, some material has remained consistent throughout the years.
- An understanding of these basics will enable you to stay properly nourished.
- We reviewed up-to-date information and guidelines, but there are still many unanswered questions to be pursued, in search of a healthier way of life.

Conclusion

The Dietary Guidelines of America provides the following advice:

- Eat a variety of foods
- Maintain a healthy weight
- Choose a diet low in total fat, saturated fat and cholesterol
- Choose a diet high in vegetables, fruit and grains
- Use sugars, salt and sodium in moderation
- Avoid alcohol

Questions?