Nutrition

A **Calorie** is a Measure of how Much energy is in a food.

- A **Nutrient** is a chemical substance found in food that provides energy for growth, movement, thinking, fighting disease, and healing.
Nutrition

6 Nutrients

Fats
Carbohydrates
Proteins
Vitamins
Minerals
Water
Nutrition

FACTORS THAT INFLUENCE OUR FOOD CHOICES:
Nutrition

WHY DO WE EAT, WHAT WE EAT?
Nutrition

FACTORS THAT INFLUENCE OUR FOOD CHOICES:

WHY DO WE EAT, WHAT WE EAT?
Nutrition

TASTE
Nutrition

TASTE
CONVENIENCE
Nutrition

TASTE
CONVENIENCE
APPEARANCE
Nutrition

TASTE
CONVENIENCE
APPEARANCE
FAMILY-ETHNICITY
Nutrition

TASTE
CONVENIENCE
APPEARANCE
FAMILY-ETHNICITY
FRIENDS
Nutrition

TASTE
CONVENIENCE
APPEARANCE
FAMILY-ETHNICITY
FRIENDS
ADVERTISING
Nutrition

TASTE
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APPEARANCE
FAMILY-ETHNICITY
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ADVERTISING
PRICE
Nutrition

Emotions affect food choices.
Nutrition

Emotions affect food choices.

Depression
Nutrition

Emotions affect food choices.
Depression
Comfort
Frustration
Low self esteem
Nutrition

Food can be used as a Reward or punishment.
Nutrition

Food can be used as a Reward or punishment.

Why is this a bad idea?
Food Facts

The average 12 ounce soft drink contains 10 teaspoons (40 grams) of sugar!!

Would you ever eat 10 teaspoons of sugar At once?
Food Facts

Put these Popular soft drinks in order from most Sugar to least sugar:
Minute Maid Orange
Mountain Dew
Pepsi
Dr. Pepper
Coca Cola Classic
7 Up
Sprite
Food Facts

Sugar contents of popular soft drinks:

- Minute Maid Orange: 48 grams
- Mountain Dew: 46
- Pepsi: 41
- Dr. Pepper: 40
- Coca Cola Classic: 39
- 7 Up: 39
- Sprite: 38
UNDERSTANDING FOOD LABELS
UNDERSTANDING FOOD LABELS

BRIGHT COLORS
UNDERSTANDING FOOD LABELS

BRIGHT COLORS
PHOTOS OF THE FOOD
Cheerios
Toasted Whole Grain Oat Cereal

Clinically PROVEN to Help Reduce Cholesterol!
UNDERSTANDING FOOD LABELS

BRIGHT COLORS
PHOTOS OF THE FOOD
CHARACTERS
CELEBRITIES
Honey Nut Cheerios
Sweetened Whole Grain Oat Cereal With Real Honey and Almonds

Can Help Lower Cholesterol & Reduce the Risk Of Heart Disease
As part of a low fat diet with the soluble fiber in Honey Nut Cheerios
UNDERSTANDING FOOD LABELS

BRIGHT COLORS
PHOTOS OF THE FOOD
CHARACTERS
CELEBRITIES
OFFERS/PRIZES
UNDERSTANDING FOOD LABELS

BRIGHT COLORS
PHOTOS OF THE FOOD
CHARACTERS
CELEBRITIES
OFFERS/PRIZES
SLOGANS
POSITIVE CLAIMS
UNDERSTANDING FOOD LABELS

Made with 100% Whole Grain
0g Trans Fat

May Help Reduce the Risk of Heart Disease
UNDERSTANDING FOOD LABELS

BRIGHT COLORS
PHOTOS OF THE FOOD
CHARACTERS
CELEBRITIES
OFFERS/PRIZES
SLOGANS
**Nutrition Facts**

**Serving Size:** 1 cup (228g)

**Serving Per Container:** 2

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**% Daily Value**

- Vitamin A: 4%
- Vitamin C: 2%
- Calcium: 20%
- Iron: 4%

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

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Limit these Nutrients

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Limit these Nutrients

Get enough of these Nutrients
The first place to start when you look at the Nutrition Facts panel is the serving size and the number of servings in the package. Serving sizes are based on the amount of food people typically eat.
Calories provide a measure of how much **ENERGY** you get from a serving of this food. The label also tells you how many of the calories in one serving come from **FAT**.
Calories provide a measure of how much energy you get from a serving of this food. The label also tells you how many of the calories in one serving come from fat.

In the example, there are 250 calories in a serving of this macaroni and 110 of those calories come from fat. This means almost half come from fat.
To calculate how much of a food is fat:

\[
\text{Fat calories} \div \text{Total calories} = \% \text{ of fat}
\]

\[
110 \div 250 = .44 \text{ or } 44\%
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Fats % of Food

Foods higher than 30% fat should be avoided.
Calculate how much of your food is fat: Do this for all five of your food labels.

1. Name of the food ______________________
   Fat calories ÷ Total calories = % of fat
   _____ ÷ _____ = ____%
The nutrients listed first are the ones Americans generally eat in adequate amounts, or even too much.
Eating too much fat or too much sodium may increase your risk of certain chronic diseases, like **heart disease, cancer, or high blood pressure**.
Eating too many calories is linked to being overweight and obesity.
Check to see what kind of fat is present in your food. Remember, Saturated fat should be avoided.
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You should limit yourself to **300 mg** of cholesterol per day.
You should limit yourself to **2400 mg** of sodium.
We need some sodium. It helps our muscles to work. And it helps to Balance the fluid levels in our bodies.
Too much Sodium can contribute to High Blood Pressure.
Americans often don't get enough dietary fiber, vitamin A, vitamin C, calcium, and iron in their diets.

Get Enough of these Nutrients
Eating enough of these nutrients can help reduce the risk of some diseases and conditions. For example, getting enough calcium can reduce the risk of **osteoporosis**, in which bones become brittle and break as one ages.

Get Enough of these Nutrients
The last part of the label tells you recommendations for a 2000 calorie diet and 2500 calorie diet. The Daily Values for Cholesterol (300mg) and Sodium (2,400mg) remain the same no matter how many calories you eat.
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Fat % of Food
Fat Calories -:- Total Calories = % of Fat in that food
9 Calories per gram of fat

Bacon
70 total calories and 60 calories from fat
Fat % of Food
Fat Calories -:- Total Calories = % of Fat in that food
9 Calories per gram of fat

Bacon
70 total calories and 60 calories from fat

60 -:- 70 = .86 or 86 %
Fat % of Food
Fat Calories -:- Total Calories = % of Fat in that food
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Bagel
200 total calories and 10 calories from fat
Fat % of Food
Fat Calories -:- Total Calories = % of Fat in that food
9 Calories per gram of fat

Bagel
200 total calories and 10 calories from fat

$\frac{10}{200} = .05$ or 5 %
Fat % of Food
Fat Calories ÷ Total Calories = % of Fat in that food
9 Calories per gram of fat

Banana
110 total calories and 5 calories from fat
Fat % of Food
Fat Calories -:- Total Calories = % of Fat in that food
9 Calories per gram of fat

Banana
110 total calories and 5 calories from fat

$\frac{5}{110} = 0.05$ or 5 %
Fat % of Food
Fat Calories ÷ Total Calories = % of Fat in that food
9 Calories per gram of fat

Beans
110 total calories and 0 calories from fat
Fat % of Food
Fat Calories -:- Total Calories = % of Fat in that food
9 Calories per gram of fat

Beans
110 total calories and 0 calories from fat

\[ \frac{0}{110} = 0 \text{ or } 0\% \]
Fat % of Food
Fat Calories ÷ Total Calories = % of Fat in that food
9 Calories per gram of fat

Beef
150 total calories and 40 calories from fat
Fat % of Food
Fat Calories ÷ Total Calories = % of Fat in that food
9 Calories per gram of fat

Beef
150 total calories and 40 calories from fat

\[\frac{40}{150} = 0.27 \text{ or } 27\%\]
Fat % of Food
Fat Calories -:- Total Calories = % of Fat in that food
9 Calories per gram of fat

Beef Patty, Broiled
230 total calories and 140 calories from fat
Fat % of Food
Fat Calories -:- Total Calories = % of Fat in that food
9 Calories per gram of fat

Beef Patty, Broiled
230 total calories and 140 calories from fat

\[
\frac{140}{230} = 0.61 \text{ or } 61\% 
\]
Breakfast
Nutrition

A **Calorie** is a measure of how much energy is in a food.

- A **Nutrient** is a chemical substance found in food that provides energy for growth, movement, thinking, fighting disease, and healing.
Nutrition

A Calorie is a Measure of how Much energy is in a food.

How many?
<table>
<thead>
<tr>
<th>AGE</th>
<th>FEMALES</th>
<th>MALES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SEDENTARY</td>
<td>MODERATELY ACTIVE</td>
</tr>
<tr>
<td>9-13</td>
<td>1600</td>
<td>1800-2000</td>
</tr>
<tr>
<td>14-18</td>
<td>1800</td>
<td>2000</td>
</tr>
<tr>
<td>19-30</td>
<td>2000</td>
<td>2000-2200</td>
</tr>
<tr>
<td>31-50</td>
<td>1800</td>
<td>2000</td>
</tr>
<tr>
<td>51+</td>
<td>1600</td>
<td>1800</td>
</tr>
<tr>
<td></td>
<td>1800</td>
<td>1800-2200</td>
</tr>
<tr>
<td>14-18</td>
<td>2200</td>
<td>2400-2800</td>
</tr>
<tr>
<td>19-30</td>
<td>2400</td>
<td>2600-2800</td>
</tr>
<tr>
<td>31-50</td>
<td>2200</td>
<td>2400-2600</td>
</tr>
<tr>
<td>51+</td>
<td>2000</td>
<td>2200-2400</td>
</tr>
</tbody>
</table>
**FOOD FACTS**

You would have to jog for 2 hours (non-stop) to burn the calories from a Whopper With cheese, medium fries and a 16 oz soft drink. (1400 calories)
Nutrition

6 Nutrients

Fats
Carbohydrates
Proteins
Vitamins
Minerals
Water
Nutrition

6 Nutrients

Fats
Carbohydrates
Proteins
Vitamins
Minerals
Water

Sometimes-Fiber
Fats

Fats are a very good source of energy.

Fats should make up 20-35% of your total daily calories.
Fats

Fats should make up 20-35% of your total daily calories.

But, not all fat is equal.
Fats

Most of the fat you eat should be **polyunsaturated** or **monounsaturated**.

This is the kind found in Fish, nuts and vegetable oils.
Fats

Avoid saturated fat, cholesterol and trans fat, commonly found in cakes, Cookies, chips, and margarine.
Fats

Trans Fat is made when hydrogen is added to vegetable oil to increase shelf life.
It increases your risk of Heart disease.
Fats

Avoid saturated fat, cholesterol and trans fat, commonly found in cakes, Cookies, chips, and margarine.

Each gram of fat provides 9 calories of energy.
7 percent of all Americans eat at McDonald's each day.
7 percent of all Americans eat at McDonald's each day.

21 Million Americans
Carbohydrates

• Simple (Sugars).
  – Cakes, Candies, Fruit

• Complex
  – Pasta, Rice
Carbohydrates

• Simple (Sugars).
  – Cakes, Candies, Fruit

• Complex
  – Pasta, Rice

Simple Carbs provide short Burst of energy.
Complex Carbs provide Long lasting energy.
Carbohydrates

• Simple (Sugars).
  – Cakes, Candies, Fruit
• Complex
  – Pasta, Rice

Simple Carbs provide short bursts of energy.
Complex Carbs provide long-lasting energy.

45-65% of our daily calories should come from Carbs.
Carbohydrates

• Simple (Sugars).
  – Cakes, Candies, Fruit

• Complex
  – Pasta, Rice

  Simple Carbs provide short
  Bursts of energy.
  Complex Carbs provide
  Long lasting energy.

45-65% of our daily calories
Should come from Carbs.

Each Gram of Carbohydrates provides 4 calories
Carbohydrates

Thumbs down on the low-carb diets.
Carbohydrates

Thumbs down on the low-carb diets.

It’s calories that count—not necessarily the proportions of Fat, carbohydrates, and protein in the diet.
Carbohydrates

Thumbs down on the low-carb diets.

Choose your carbs wisely.
Carbohydrates

Thumbs down on the low-carb diets.

Choose your carbs wisely.

Fiber-rich fruits, vegetables, grains and milk are your best bets.
Carbohydrates

Thumbs down on the low-carb diets.

Choose your carbs wisely.

Avoid the foods high in added sugars, which tend to be high in calories but low on nutrients.
White Castle was the world's first hamburger chain founded in 1921, in Wichita, Kansas.
Proteins

- **Complete**
  - Foods from Animals
  - Meats, Dairy products
  - 22 amino acids

- **Incomplete**
  - Foods from Plants
  - Beans, Nuts, Seeds
  - Less than 22 amino acids
Proteins

• Complete
  – Foods from Animals
  – Meats, Dairy products
    – Contain 22 amino acids

• Incomplete
  – Foods from Plants
  – Beans, Nuts, Seeds
  – Less than 22 amino acids
Proteins

AMINO ACIDS
AMINO ACIDS are the "building Blocks" of the body.
Proteins

AMINO ACIDS
AMINO ACIDS are the "building Blocks" of the body.
Proteins

AMINO ACIDS
Without AMINO ACIDS the body weakens.
Proteins

**AMINO ACIDS**
AMINO ACIDS are the "building Blocks" of the body.
Building cells and repairing tissue.
Fights Disease.
Part of the enzyme & hormonal system.
Carry oxygen throughout the body and participate in muscle activity.
Proteins

- **Complete**
  - Foods from Animals
  - Meats, Dairy products
  - 22 amino acids

- **Incomplete**
  - Foods from Plants
  - Beans, Nuts, Seeds
  - Less than 22 amino acids

**Helps build muscles**

30% of our daily calories
Should come from proteins.

Each Gram of Protein provides 4 calories
Vitamins & Minerals

- Vitamins and Minerals do not provide any energy, but they help our bodies use the energy from proteins, carbs, and fats.
Vitamins & Minerals

• Vitamins and Minerals do not provide any energy, but they help our bodies use the energy from proteins, carbs, and fats.

  Fat soluble vitamins-A,D,E,K

  Water soluble vitamins-B’s and C
Vitamins & Minerals

Fat soluble vitamins-A, D, E, K
These vitamins can be stored in the fat cells of your body.

Water soluble vitamins-B’s and C
These vitamins dissolve in the watery parts of your body and can’t be stored in your body.
Vitamins & Minerals

• Vitamins help chemical reactions take place in the body.

• Minerals regulate the chemical reactions in the body.
Vitamins & Minerals

Most Americans do not get enough vitamins and minerals in their diet.

**Calcium** - Non-fat yogurt, milk and cheese

Teeth & Bones
Most Americans do not get enough vitamins and minerals in their diet.

**Potassium**-sweet potatoes, bananas

Reduces Blood Pressure
Helps Heart Rhythm
Most Americans do not get enough vitamins and minerals in their diet.

**Magnesium** - spinach, almonds, artichoke, yellowfin Tuna.

Helps Depression
Prevents Heart Attacks
Most Americans do not get enough vitamins and minerals in their diet.

**Vitamin A** - Carrots, spinach, pumpkin

Vision
Vitamins & Minerals

Most Americans do not get enough vitamins and minerals in their diet.

**Vitamin C** - Oranges, Red and Green Peppers, Kiwi.

Immune System
Most Americans do not get enough vitamins and minerals in their diet.

**Vitamin E** - Peanut Butter, Sunflower seeds, Avocado.

Immune System
Water

• Water may be the most important nutrient of all. Although there is no energy in water. It is needed to transport all the other nutrients throughout our body.
Fiber

- Fiber, also known as dietary fiber, comes from plant foods. There is no energy in fiber, but it helps with our digestion and can reduce our risks of certain cancers like colon cancer. We should try to eat 25g of fiber per day.
Cholesterol Basics

Cholesterol is a waxy substance found in fats that circulate in your bloodstream.
Cholesterol Basics

Cholesterol is a waxy substance found in fats that circulate in your bloodstream.
Cholesterol Basics

Cholesterol is a waxy substance found in fats that circulate in your bloodstream.

Too much cholesterol causes plaque to build up in the arteries.

This increases your risk for heart attacks or strokes.
Coronary artery plaque
Cholesterol Basics

There are two types of Cholesterol

HDL-Good

LDL-Bad
LDL Cholesterol

LDL (low density lipoproteins) is BAD cholesterol. This can contribute to heart disease. LDL causes plaque.
HDL Cholesterol

HDL (high density lipoproteins) "Healthy" cholesterol.
This can protect you from heart disease. HDL removes LDL from your bloodstream. High levels of HDL are good for your body.
Total Cholesterol Levels

Desirable - Less than 200 mg
Total Cholesterol Levels
Desirable-Less than 200 mg

LDL Cholesterol Levels
Desirable-Less than 100 mg
Total Cholesterol Levels
Desirable-Less than 200 mg

LDL Cholesterol Levels
Desirable-Less than 100 mg

HDL Cholesterol Levels
Desirable-More than 60 mg
Triglycerides

Triglycerides are the chemical form of fat in your body.

High triglyceride levels indicate an increased risk of Heart disease.
Triglycerides Levels

Normal - Less than 150 mg
# Nutrition Facts

**Serving Size:** 1 cup (228g)
**Serving Per Container:** 2

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Amount Per Serving</th>
<th>% Daily Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Calories</strong></td>
<td>250</td>
<td></td>
</tr>
<tr>
<td><strong>Total Fat</strong></td>
<td>12g</td>
<td>18%</td>
</tr>
<tr>
<td>Saturated Fat</td>
<td>3g</td>
<td>15%</td>
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<tr>
<td><strong>Cholesterol</strong></td>
<td>30mg</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Sodium</strong></td>
<td>470mg</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Total Carbohydrate</strong></td>
<td>31g</td>
<td>10%</td>
</tr>
<tr>
<td>Dietary Fiber</td>
<td>0g</td>
<td>0%</td>
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<tr>
<td>Sugars</td>
<td>5g</td>
<td></td>
</tr>
<tr>
<td><strong>Protein</strong></td>
<td>5g</td>
<td></td>
</tr>
<tr>
<td><strong>Vitamin A</strong></td>
<td></td>
<td>4%</td>
</tr>
<tr>
<td><strong>Vitamin C</strong></td>
<td></td>
<td>2%</td>
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<tr>
<td><strong>Calcium</strong></td>
<td></td>
<td>20%</td>
</tr>
<tr>
<td><strong>Iron</strong></td>
<td></td>
<td>4%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Calories: 2,000</th>
<th>Calories: 2,500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fat</td>
<td>Less than 65g</td>
<td>Less than 80g</td>
</tr>
<tr>
<td>Saturated Fat</td>
<td>Less than 20g</td>
<td>Less than 25g</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>Less than 300mg</td>
<td>Less than 300mg</td>
</tr>
<tr>
<td>Sodium</td>
<td>Less than 2,400mg</td>
<td>Less than 2,400mg</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
<td>300g</td>
<td>375g</td>
</tr>
<tr>
<td>Dietary Fiber</td>
<td>25g</td>
<td>30g</td>
</tr>
</tbody>
</table>
Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

<table>
<thead>
<tr>
<th></th>
<th>Calories:</th>
<th>2,000</th>
<th>2,500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fat</td>
<td>Less than</td>
<td>65g</td>
<td>80g</td>
</tr>
<tr>
<td>Sati Fat</td>
<td>Less than</td>
<td>20g</td>
<td>25g</td>
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<tr>
<td>Cholesterol</td>
<td>Less than</td>
<td>300mg</td>
<td>300mg</td>
</tr>
<tr>
<td>Sodium</td>
<td>Less than</td>
<td>2,400mg</td>
<td>2,400mg</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
<td></td>
<td>300g</td>
<td>375g</td>
</tr>
<tr>
<td>Dietary Fiber</td>
<td></td>
<td>25g</td>
<td>30g</td>
</tr>
</tbody>
</table>
PORTION CONTROL

Here we go-the all-American snowman!

Maybe yours was all-American 30 years ago...

But with modern eating habits...
PORTION CONTROL

In 1954 when McDonalds sold fries there
Was only one size 2.4 oz.

Today McDonalds has a 5.3 oz. size, 6.3 oz.
and 7.1 oz.
In 1954 when McDonalds sold fries there was only one size 2.4 oz. (approx. 220 cals.)

Today McDonalds has a 5.3 oz. size, 6.3 oz. and 7.1 oz. (approx 600 cals)
PORTION CONTROL

In 1954 when McDonalds sold soft drinks
The regular size was 12 oz.

Today McDonalds has a Medium drink at
22 oz., a Large is 32 oz. and X-Large is 42 oz.
In 1954 when McDonalds sold soft drinks
The regular size was 12 oz. (approx 144 cals)

Today McDonalds has a Medium drink at
22 oz., a Large is 32 oz. and X-Large is 42 oz.

(approx 500 cals)
Bagel

20 Years Ago

3-inch diameter
140 calories

?? calories

350      250      150

Today
Bagel

20 Years Ago

3-inch diameter
140 calories

Today

??? calories

350 250 150
Cheeseburger

20 Years Ago

333 calories

Today

??? calories

590  620  700
Cheeseburger

20 Years Ago

333 calories

Today

590  620  700
Turkey Sandwich

20 Years Ago

320 calories

Today

??? calories

820  510  630
Turkey Sandwich

20 Years Ago

320 calories

Today

??? calories

820  510  630
Blueberry Muffin

20 Years Ago  Today

210 calories  ??? calories

320  400  500
Blueberry Muffin

20 Years Ago

210 calories

Today

??? calories

320  400  500
2 Pepperoni Pizza Slices

20 Years Ago

500 calories

Today

??? calories

1200    850    1000
2 Pepperoni Pizza Slices

20 Years Ago

500 calories

Today

??? calories

1200 850 1000
Popcorn

20 Years Ago

270 calories, 5 cups

520  630  820

Today

??? calories
20 Years Ago

270 calories, 5 cups

Today

??? calories

520  630  820
Portion Sizes

Do This...

To visualize this measured amount...

Useful for these foods...

8 fl oz

Cold and hot beverages

One fist, clenched
Portion Sizes

1 cup

To visualize this measured amount...

Useful for these foods...

Breakfast cereal
Soup
Green salads
Mixed dishes like chili, stew,
Macaroni & cheese
Portion Sizes

1/2 cup

Do This...
To visualize this measured amount...

One hand, cupped

Useful for these foods...

Pasta, Rice
Hot Cereal
Fruit salad
Beans
Mashed Potatoes
Portion Sizes

3 ounces Cooked Meats
Portion Sizes

1 Tablespoon

To visualize this measured amount...

Useful for these foods...

Peanut Butter

Salad Dressing

Sour Cream

Cream Cheese

Mayonnaise
FOOD FACTS

Americans spend more on fast food than on movies, books, magazines, newspapers, videos, and recorded music - combined."
Practice Problems

% Fat

Big Mac

Whopper
Practice Problems

% Fat

Big Mac
560 Total Cals.
270 Fat Cals.

Whopper
760 Total Cals.
420 Fat Cals.
Practice Problems

% Fat

Big Mac
270÷560 = .48 or 48%

Whopper
420÷760 = .55 or 55%
SODAS, PIZZA, FRENCH FRIES, ICE CREAM, THE FOOD THEY SERVE KIDS AT SCHOOL IS AWFUL

WHATEVER HAPPENED TO THE DAYS OF MILK, FISH STICKS AND LIMA BEANS?
CLASS SIZES ARE INCREASING IN MORE WAYS THAN ONE.
Dietary Guidelines
Dietary Guidelines

• #1 Eat a variety of Foods
Dietary Guidelines

• #1 Eat a variety of Foods

• #2 Balance the food you eat with Physical Activity to maintain a healthy weight.
Dietary Guidelines

•#1 Eat a variety of Foods

•#2 Balance the food you eat with Physical Activity to maintain a healthy weight.

•#3 Choose a diet low in fat, saturated fat, and cholesterol.
FOOD FACTS

The typical American now consumes approximately three hamburgers and four orders of French fries every week.
Dietary Guidelines

•#1 Eat a variety of Foods

•#2 Balance the food you eat with Physical Activity to maintain a healthy weight.

•#3 Choose a diet low in fat, saturated fat, and cholesterol.

•#4 Choose a diet with plenty of grains, vegetables and fruits.
Dietary Guidelines

• #1 Eat a variety of Foods

• #2 Balance the food you eat with Physical Activity to maintain a healthy weight.

• #3 Choose a diet low in fat, saturated fat, and cholesterol.

• #4 Choose a diet with plenty of grains, vegetables and fruits.

• #5 Choose a diet moderate in sugars.
Dietary Guidelines

• #1 Eat a variety of Foods

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• #3 Choose a diet low in fat, saturated fat, and cholesterol.

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• #5 Choose a diet moderate in sugars.

• #6 Choose a diet moderate in salt and sodium.
Dietary Guidelines

•#1 Eat a variety of Foods

•#2 Balance the food you eat with Physical Activity to maintain a healthy weight.

•#3 Choose a diet low in fat, saturated fat, and cholesterol.

•#4 Choose a diet with plenty of grains, vegetables and fruits.

•#5 Choose a diet moderate in sugars.

•#6 Choose a diet moderate in salt and sodium.

•#7 Do not drink Alcohol.
HEALTHY WEIGHT RANGE
Dietary Guidelines

• #2 Balance the food you eat with Physical Activity to maintain a healthy weight.
HEALTHFUL BODY COMPOSITION

BODY MASS INDEX (BMI) IS ONE WAY TO MEASURE YOUR BODY COMPOSITION.
HEALTHFUL BODY COMPOSITION

BODY MASS INDEX (BMI) IS ONE WAY TO MEASURE YOUR BODY COMPOSITION.

BMI = WEIGHT / HEIGHT $^2$

\[ \uparrow \quad \uparrow \]

Kilograms \hspace{1cm} Meters
HEALTHFUL BODY COMPOSITION

BODY MASS INDEX (BMI) IS ONE WAY TO MEASURE YOUR BODY COMPOSITION.

\[
\left( \frac{\text{WEIGHT}}{\text{HEIGHT}} \div \frac{\text{HEIGHT}}{\text{HEIGHT}} \right) \times 703
\]

- pounds
- inches
- inches
Example
A person weighing **210 pounds** and **6 feet tall**
BMI = 210 pounds divided by 72 inches divided by 72 inches multiplied by 703 = 28.5
HEALTHFUL BODY COMPOSITION

A healthy BMI for adults is between **18.5 and 24.9**

[http://www.halls.md/body-mass-index/bmi.htm](http://www.halls.md/body-mass-index/bmi.htm)
HEALTHFUL BODY COMPOSITION
HEALTHFUL BODY COMPOSITION

If your BMI is between 17 to 22, your life expectancy is longer than average.

If your BMI is 26 or more, that's not good.
Practice Problems

Body Mass Index

6’1” Man, Weight 255 lbs. Age: 33
5’5” Women, Weight 125 lbs. Age 25

5’10” Man, Weight 165 lbs. Age 14
Practice Problems
Body Mass Index

6’1” Man, Weight 255 lbs. Age: 33
Practice Problems
Body Mass Index

6’1” Man, Weight 225 lbs. Age 33

$$\frac{255}{73} \div 73 \times 703 = 33.6$$

92\textsuperscript{nd} Percentile
Practice Problems
Body Mass Index

5’5” Women, Weight 125 lbs. Age 25
Practice Problems
Body Mass Index

5’5” Women, Weight 125 lbs. Age 25

$\frac{125}{65} \div \frac{65}{703} = 20.8$

$26^{th}$ percentile
Practice Problems
Body Mass Index

5’10” Man, Weight 165 lbs. Age 14
Practice Problems
Body Mass Index

5’10” Man, Weight 165 lbs.

\[ 165 \div 70 \div 70 \times 703 = 23.7 \]

61st Percentile