Nutrition Is Important to You!

Lesson 1
Nutrition Is Important to You!

Pre-Quiz

- Put a simple, identifiable symbol on the top of the first page.
- Write that same symbol on your Post-Quiz.
- Take the Pre-Quiz and bring completed quiz to the front.
Nutrition Is Important to You!

Roles of Nutrition in Health

- Fuels Brain
- Protects Vision
Nutrition Is Important to You!

Roles of Nutrition in Health

- Promotes Healthy Teeth and Gums
- Promotes Healthy Blood Pressure
Nutrition Is Important to You!

Roles of Nutrition in Health

- Fuels Body
- Maintains Tissues
- Promotes Heart Health
Nutrition Is Important to You!

Roles of Nutrition in Health

- Promotes Digestive Health
- Contributes to Healthy Weight
- Reduces Chronic Disease Risk
Nutrition Is Important to You!

Roles of Nutrition in Health

- Enhances Longevity
- Maintains Strong Bones
Physical Activity Booster

Steps for Better Health
Nutrition Is Important to You!

Other Nutrition Considerations

- Nurtures Personal Relationships
- Used in Celebrations
- Keep Food in Perspective
- Taste and Enjoy a Variety of Foods
Taste and Enjoy a variety of foods.
Personal Discovery Assessment

Habits for Health

- 24 Hour Food Recall
- 24 Hour Exercise Recall
- Self Discovery Activity
Lesson 1 Review

- Good nutrition impacts the whole body.
- Healthy choices can be made by eating a variety of foods in small portions.
- Balance activity with intake.
End of Lesson 1
Tools for Guiding Food Choices
Three Tools for Guiding Food Choices

- The *Dietary Guidelines for Americans 2010* is the basis for the U.S. dietary guidance system.
- The MyPlate icon is part of a larger communications initiative based on *2010 Dietary Guidelines for Americans*
- Nutrition Facts Labels provide information about foods, such as serving sizes, ingredients, and nutritional content
Using 3 major goals encourages consumers to:

- Balance calories
- Increase certain foods
- Decrease certain foods
Balancing Calories to Manage Weight

- Balance your calories
- Consume only enough to meet your needs
- Be physically active
Foods and Food Components to Increase

- Make half your plate fruits and vegetables.
- Make at least half your grains whole grains.
- Switch to fat-free and low-fat (1%) milk.
- Drink water.
Foods and Food Components to Reduce

- Choose foods and food components lower in sodium and sugar.
- Limit sugary drinks.
- Choose foods and food components low in fat and saturated fat.
- Avoid trans fat.
Building Healthy Eating Patterns

- Select an eating pattern with appropriate nutrients and calorie levels.
- Account for all foods and beverages consumed.
- Follow food safety recommendations to reduce foodborne illness.
Helping Students Make Healthy Choices

- A coordinated system wide approach.
- Enhancing all environments with healthy and active practices.
- Paying attention to cultural differences, activity levels, ages, and gender.
Activity: MyPlate Scenario
Goals of MyPlate

- Provides easy-to-understand image
- Initiates and builds healthy lifestyles
- Serves as a reminder to eat healthfully
- Visualizes the different components of a meal
Five Food Groups

- Grains
- Vegetables
- Fruits
- Dairy
- Protein
Make Half Your Grains Whole
Vary Your Vegetables
Fruit-The Sweet Treat
Get Your Calcium Rich Foods
Go Lean on Protein
choosemyplate.gov

http://www.choosemyplate.gov/
Get a Personalized Plan

SuperTracker:
- Get your personalized nutrition and physical activity plan.
- Track your foods and physical activities to see how they stack up.
- Get tips and support to help you make healthier choices and plan ahead.

Food-A-Pedia >
Look up nutrition info for over 6,000 foods and compare foods side-by-side.
- Type in your food here
- Get
- All Foods

Food Tracker >
Track the foods you eat and compare to your nutrition targets.
- Type in your food here
- Go
- All Foods

Physical Activity Tracker >
Enter your activities and track progress as you move.
- Type in your activity here
- Go
- All Activities

My Weight Manager >
Get weight management guidance, enter your weight and track progress over time.

My Top 5 Goals >
Choose up to 5 personal goals, sign up for tips and support from your virtual coach.

My Recipe >
Build and save your favorite recipes for tracking, and analyze the nutrition info.
Discretionary Calories

The calories from foods that are higher in sugar or fat and lower in nutrients.
Nutrition Facts Label

Quick Guide to Daily Values (DV)

- 5% DV or less is low for the nutrient
- 20% DV or more is high for the nutrient
Helpful Tips on the Nutrition Facts Label

- Check the serving size and number of servings.
- Look for foods high in vitamins, minerals, and other nutrients.
- Serves as a reminder to eat healthfully.
Proposed New Nutrition Facts Label

Current Label

Proposed Label
Dietary Guidelines and Nutrition Facts Label Activity
End of Lesson 2
Physical Activity Booster
The Energy Nutrients

Lesson 3
The Energy Nutrients

- Protein
- Carbohydrates
- Fat
The Energy Nutrients

Functions of Protein

- Build muscles, body tissues, and blood cells
- Part of enzymes and hormones
- Enhance immune system
Amino Acids

- 22 total amino acids
- 13 non-essential amino acids
- 9 essential amino acids
Complete Proteins

- Meat
- Fish
- Poultry
- Eggs
- Dairy
- Soy
- Quinoa
Incomplete Proteins

- Grains
- Legumes
- Seeds
- Nuts
- Vegetables
Complimentary Proteins

- Peanut Butter on Whole Grain Bread
- Cornbread with Bean Soup
- Granola with a mixture of Grains and Peanuts
The Energy Nutrients

Protein Facts

- Provide 4 Calories Per Gram
- Provide Energy when Needed
- Stored as Fat if not Needed
The Energy Nutrients

Functions of Carbohydrates

- Provides Energy
- Growth and Development
- Activity
The Energy Nutrients

Sources of Simple Carbohydrates

- Fruit
- Milk
- Some Vegetables
- Honey
- Refined Sugars
Sugar, Sugar, Everywhere

- Simple Sugars
- Food Sources with Naturally Occurring Simple Sugars
- Food Sources with Added Simple Sugars
- Beverages with Naturally Occurring Simple Sugars
- Beverages with Added Simple Sugars
The Energy Nutrients

Simple Sugars: As Simple as One, Two, Three and More

- Made up of molecules called saccharides.
Common Added Sugars

Watch for words ending in “ose”.

- Sugar
- Brown Sugar
- Sucrose
- Dextrose
- Fructose
- High-Fructose Corn Syrup
- Invert Sugar
- Maltose
- Molasses
- Honey
- Raw Sugar
The Energy Nutrients

Sources of Complex Carbohydrates

- Grains
- Vegetables
- Legumes
- Dietary Fiber (Soluble and Insoluble)
Soluble Fiber

Attracts water and turns to gel during digestion. Binds with cholesterol compounds transporting them out of the body.

- Oats, Oat bran
- Fruits
- Cucumbers, Celery, Carrots
- Lentils
Insoluble Fiber

Adds bulk to stool and helps food pass through digestion more quickly.

- Whole Grains
- Seeds, Nuts
- Fruit and Vegetable Skins
The Energy Nutrients

Sugar

1 tsp = 4.2 grams
4 calories x 4.2 grams = 16.8 calories
1 tsp = 16.8 calories
The average intake of sugars (sugar, syrup, and honey) is 87 pounds per person per year.
Activity: Liquid Calories
The Energy Nutrients

Carbohydrate Facts

- Fuels the Brain
- Provides 4 Calories per Gram
- Excess Converted and Stored as Fat
The Energy Nutrients

Functions of Fat

- Cushions Vital Organs
- Carries Vitamins A, D, E, and K
- Imparts a Feeling of Fullness (satiety)
The Energy Nutrients

Sources of Fat

- *Trans* Fat
- Saturated
- Monounsaturated
- Polyunsaturated
The Energy Nutrients

Fatty Acids

- *Trans* Fatty Acids (TFAs)
- Saturated Fatty Acids (SFAs)
- Monounsaturated Fatty Acids (MUFAs)
- Polyunsaturated Fatty Acids (PUFAs)
The Energy Nutrients

Carbon Chains

- Lipids – carbon chains
- C – carbon
- H – hydrogen
- O – oxygen
- Carbon can have a bond in four places
The Energy Nutrients

Saturated Fatty Acid

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\text{H}_2\text{C} = \text{C} - \text{C} - \text{C} - \text{C} - \text{C} - \text{C} - \text{C} - \text{C} - \text{C} - \text{C} - \text{C} - \text{C} \quad \text{OH}
\]
The Energy Nutrients

Monounsaturated Fatty Acid

\[
\text{C=C-}-\text{C-}-\text{C-}-\text{C-}-\text{C-}-\text{C-}-\text{C-}-\text{C-}-\text{C-}-\text{C-}-\text{C-}-\text{OH}
\]
The Energy Nutrients

Polyunsaturated Fatty Acid

\[ \text{Structure of Polyunsaturated Fatty Acid} \]
The Energy Nutrients

Trans Fatty Acid

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\text{H} - \text{C} - \text{C} - \text{C} = \text{C} - \text{C} = \text{O} \\
\text{H} \quad \text{H} \quad \text{H} \quad \text{H} \\
\text{H} \quad \text{H} \quad \text{H} \quad \text{H}
\]
The Energy Nutrients

Fat Facts

- Provides a concentrated source of energy
- Provides 9 calories per gram
- Found in every cell
Activity

My Lipids, They Wrote Me a Letter

M T S P
Activity Answer Key

- Olive oil
- Snack crackers made with hydrogenated soybean oil
- Prime rib beef
- Croissant made with butter
- Salmon
- Salad dressing made with canola oil
- Toast with stick margarine
- Potatoes fried in lard
- Waffles made with corn oil
- Peanut butter

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Fat and the Dietary Guidelines

Dietary Guidelines

- Keep total fat at 20-35% of total calories
- Keep SFAs at 10% or less of total calories
- Keep TFAs as low as possible
- Choose healthy fats MUFAs and PUFAs more often

MyPlate

- Balance food groups and calories
- Choose lean meats, low-fat or fat-free milk/products
- Bake it, broil it, grill it
- Limit snack foods
- Choose fish, nuts, seeds, and vegetable oils more often
Activity
The Energy Nutrients

The Lowdown on Low-Fat Recipes

Nutrition 101: A Taste of Food and Fitness

The Lowdown on Low-Fat Recipes

It is helpful to know the role fat plays in a recipe before changing the recipe to be lower in fat. Low-fat baking is an art form all its own. The tips below are a great place to start.

The rule of thumb for any recipe makeover is to test after every change. Have fun updating your favorite recipes.

Common ways to reduce fat in baked goods recipes

- Try the recipe with up to one third less fat without a replacement – it may work fine!
- Use unsweetened applesauce or other fruit purées to replace half or more of the fat in a recipe.
- Use plain low-fat or fat-free yogurt to replace half or more of the fat in the recipe.

Note: Replace fat with a measure for measure amount such as 1/3 cup applesauce for 1/3 cup margarine.

Many foods have a low-fat option that can be used in recipes. Examples include:

- Fat-free milk for whole or 2% milk
- Evaporated skim milk for regular evaporated milk
- Low-fat plain yogurt or fat-free sour cream for regular sour cream

Flavor

Flavor is a major role for fats in recipes. Butter flavors baked goods. Butter can be reduced in a recipe to decrease saturated fat. A butter/margarine blend or butter/oil blend are two options to keep flavor when reducing the amount of fat or using a different type of fat.

Recipes that mix butter with sugar have a unique caramel flavor. Increase the amount of flavorings to make up for less butter in a recipe.

Texture

Fat helps keep baked goods tender. Fat coats the flour pieces. This coating keeps the protein in flour from linking to other proteins. When fat is reduced, baked items can be tough. Replacing some of the fat with unsweetened applesauce is one way to help keep baked goods tender. Here is another tip to try: Use whole wheat pastry flour. Pastry flour, also called cake flour, has less protein than all-purpose flour, so it will produce a more tender product. Whole wheat pastry flour adds whole grain goodness, too.

Egg yolks are a source of fat and cholesterol. They also help mix fat and protein. When a recipe...
The Energy Nutrients

Calories Count and Serving Size Matters

- Protein – 4 calories per gram
- Carbohydrate – 4 calories per gram
- Fat – 9 calories per gram
Physical Activity Break
End of Lesson 3
Micronutrients:
Vitamins and Minerals
Vitamins

Fat Soluble (A, D, E, K)
- Stored in fat tissue and liver
- Needed in small amounts
- Not needed everyday
- Can be toxic in mega doses

Water Soluble (B complex and C)
- No storage in body
- Excess amounts excreted
- Needed daily
- Easily destroyed in cooking
Vitamins and Minerals

Vitamin A Functions
- Healthy Skin
- Healthy Eyes
- Good Night Vision

Vitamin A Food Sources
- Retinol – milk, eggs yolks, liver
- Beta-carotene – orange/dark green vegetables, cantaloupe
Fat Soluble Vitamins

Vitamin D Functions
- Helps the Body Absorb Calcium
- Contributes to Strong Bones and Teeth

Vitamin D Food Sources
- Fortified Milk
- Fatty Fish
- Liver
- Eggs
Fat Soluble Vitamins

Vitamin E Functions

- Red Blood Cell Production
- Keeps Cells Healthy

Vitamin E Food Sources

- Vegetable Oils
- Wheat Germ
- Whole Grains
- Green Leafy Vegetables
- Sesame Seeds
- Almonds
Fat Soluble Vitamins

Vitamin K Functions
- Blood Clotting
- Strong Bones

Vitamin K Food Sources
- Dark Green Leafy Vegetables
- Milk
- Vegetable Oils
- Cauliflower
Water Soluble Vitamins

Vitamin B Complex

- Thiamin
- Riboflavin
- Niacin
- Folic Acid
- B-12
Water Soluble Vitamins

Thiamin Functions

- Helps the Body Use Energy
- Keeps Nervous System Healthy

Thiamin Food Sources

- Whole and Enriched Grains
- Pork
- Eggs
- Yeast
- Dried Beans
- Green Leafy Vegetables
Water Soluble Vitamins

Riboflavin Functions

- Converting Carbohydrate, Fat, and Protein to Energy
- Keeps the Digestive Tract, Mucous Membranes, and Skin Healthy

Riboflavin Food Sources

- Milk
- Cheese
- Whole and Enriched Grains

- Organ Meats
- Eggs
- Green Leafy Vegetables
Water Soluble Vitamins

Niacin Functions
- Release Energy from Foods
- Keeps Nervous System Healthy
- Promotes Healthy Skin and Digestive Tract

Niacin Food Sources
- Pork
- Beef
- Whole or Enriched Grains
- Peanuts
- Liver
Water Soluble Vitamins

Folic Acid Functions

- Helps Create New Body and Blood Cells
- Prevents Birth Defects
- May Reduce Heart Disease

Folic Acid Food Sources

- Green Leafy Vegetables
- Citrus Fruits
- Strawberries
- Dried Beans
- Enriched Grains
- Fortified Cereal
- Liver
- Wheat Germ
Water Soluble Vitamins

Vitamin B-12 Functions

- Nerve Function
- Helps Body Make New Cells

Vitamin B-12 Food Sources

- Meat
- Poultry
- Fish
- Eggs
- Milk
- Fortified Soy Milk
Water Soluble Vitamins

Vitamin C Functions
- Healthy Immune System
- Component of Collagen

Vitamin C Food Sources
- Citrus Fruits
- Tomatoes
- Peppers
- Potatoes
- Strawberries
Activity

24 Hour Food Recall Review

<table>
<thead>
<tr>
<th>Food/Beverage Item</th>
<th>Serving Size</th>
<th>Time Consumed</th>
<th>Where</th>
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<tbody>
<tr>
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Water

Yes, I am talking about water.

Go Ahead Supersize!
Fluid Facts About Water

- Water is a critical nutrient
- Water, Beverages, Fruits, Vegetables, and Other Foods

NUTRITION 101: A TASTE OF FOOD AND FITNESS

Fluid Facts About Water

Do you know which nutrient your body needs most? It is water. Water is so critical that without fluids, a person would not survive. A person can live without food for a few weeks, but can live without water for only a few days.

Water is part of every cell in the body. Water plays a role in nearly every body process. Water works to promote health by:
- Transporting nutrients to the cells
- Removing waste products from the cells and the body
- Lubricating joints
- Cooling the body through perspiration
- Moistening the eyes, mouth, and nasal passages
- Aiding in digestion as part of saliva and digestive juices

Exactly how much water or fluids a person needs each day varies. Physical activities and hot weather or conditions increase fluid needs. Thirst, the desire to drink fluids, is your body's cue that it needs more fluids. Obey your thirst and enjoy fluids with and between meals.

Fluid studies indicate water and other beverages provide most of the fluids in the diet. Foods provide about 20% of daily fluids. A combination of foods and beverages can meet a person's needs. Meet your fluid needs with:
- water
- milk
- juice
- soups
- fruits
- vegetables
- other beverages

Health experts encourage plain water and unsweetened beverages for a variety of reasons. Tooth decay can occur with a frequent intake of regular soft drinks, sports drinks, fruit punches, and other sugary drinks. Sugar sweetened beverages are a source of extra calories and may contribute to weight gain. Coffee or tea provide fluids; just be sure daily fluid choices are varied. The guides of balance, variety, and moderation apply to both daily food and fluid choices.

It is common to see water bottles carried by young and old alike. Here is a tip to keep your drink refreshing and safe. Use a durable water bottle designed to be re-used. Thoroughly clean reusable water bottles with a bottlebrush and hot, soapy water between uses. Wash bottles with large openings in a dishwasher if made of dishwasher-safe materials. Refilling a water bottle without a thorough washing creates a perfect place for bacteria to grow. Keep your water fresh and clean.
Micronutrients: Mighty Minerals

Major Minerals
- Calcium
- Phosphorus
- Magnesium
- Potassium
- Chloride
- Sulfur

Trace Minerals
- Iron
- Copper
- Zinc
- Iodine
- Cobalt
- Fluoride
- Selenium
- Manganese
Major Minerals

Calcium Functions

- Strong Bones
- Muscle Contractions
- Nerve Impulses
- Blood Clotting
- Normal Blood Pressure

Calcium Food Sources

- Milk, Cheese, Yogurt
- Dried Beans
- Fish with Bones
- Broccoli
- Dark-Green, Leafy Vegetables
Major Minerals

Magnesium Functions

- Strong Teeth – Holds Calcium in Tooth Enamel
- Aids in Normal Blood Pressure
- Aids in Release and Use of Energy from Energy Nutrients.
- Directly Impacts Use of Potassium, Calcium, and Vitamin D

Magnesium Food Sources

- Whole Grains
- Black Beans/Black-eyed Peas
- Avocado
- Soy Milk
Major Minerals

Potassium Functions

- Regulates Heart Beats
- Promotes Normal Muscle Function
- Promotes Normal Blood Pressure

Potassium Food Sources

- Fresh Foods
- Bananas
- Potatoes
- Lima Beans
Trace Minerals

Iron Functions

- Red Blood Cells Formation
- Oxygen Carrier
- Ability to Learn
- Healthy Immune System
- Component of Some Enzymes

Iron Food Sources

- Heme Iron
  - Lean Red Meats, Liver, and Dark Poultry
- Non-Heme Iron
  - Whole Grains, Dried Beans, Lentils, and Spinach
Trace Minerals

Zinc Functions

- Immune Function
- Wound Healing
- Growth
- Blood Clotting

Zinc Food Sources

- Lean Meats
- Eggs
- Seafood
- Nuts
- Whole Grains
Super Foods – The Next Frontier

- Colorful Produce
- Phytonutrients

Phytonutrients color produce vividly. Produce with similar hues may promote health in similar ways. How do phytonutrients work? Science does not have all the answers today. There is strong promise of added health benefits of vegetables and fruits beyond the known actions of vitamins and minerals. That is reason enough to say super-size the next colorful, delicious salad.

Red plant foods are rich in lycopene. Early studies show lycopene helps fight cancer and perhaps heart disease. Tomato products are particularly rich sources of lycopene. The cooking process increases the activity of lycopene.

Red/purple plants produce anthocyanins. These compounds may prevent age-related memory loss. Studies of strawberries and blueberries show promise. This same active agent is in cranberries and is linked to reduced incidence of urinary tract infections.

White/green foods such as onions, leeks, garlic, and chives contain allin. Studies of this phytonutrient focus on a strong immune system. Though more studies are needed, early results show this compound may stop cancer in its very early stages.

Orange and yellow/orange foods are bursting with beta-carotene and other carotenoids. Many studies show lower risk of cancer with higher intakes of carotenoids. Different types of carotenoids are present in plant foods. Scientists think that the power may be in partnerships of the various carotenoids working together.

Yellow/green plants like spinach are rich in lutin. An age-related eye disease may be less common among people with high lutin levels. Egg yolks are the rare animal food rich in lutin.

Green vegetables, including broccoli and Brussels sprouts, have a unique sulfur-based compound that helps the liver combat cancer. Cauliflower has the same compound. It is grouped with the green vegetables. These foods also help cells fight the spread of cancer.

New research shows the fat from a little drizzle of oil or sprinkle of cheese or nuts helps the body absorb and use these superstar, health promoters from plant foods. It is just one more way foods work together to satisfy taste and health. Enhance the flavors with a squeeze of lemon and enjoy the flavors.
Cafeteria Connection

- School Performance
- Student Health

Resources

- *Fruits and Vegetables Galore*
- Web Sites for Organizations
Vitamins and Minerals

A Rainbow of Colors
End of Lesson 4
Physical Activity
Special Diets
Special Diets

- Requested by a Medical Authority
- Personal Preferences
Vegetarianism

What is a vegetarian diet?

A plant-based diet that may exclude various animal products.
Vegetarianism

Four main vegetarianism eating patterns

- Lacto-Ovo
- Lacto
- Ovo
- Vegan
Lacto-Ovo

- Grains, Vegetables, Fruits, Legumes, Nuts, and Seeds
- Milk and Other Dairy Products (lacto)
- Eggs (ovo)
Lacto

- Similar to Lacto-Ovo
- Excludes eggs (Ovo)
- Baked items and pastas may need to be prepared differently
Ovo

- Similar to Lacto-Ovo
- Excludes dairy products (Lacto)
- Recipes using cheese, yogurt, butter, and milk need to be adjusted
Vegan

- Only plant-based foods
- Eliminates all animal products
- Strict vegans avoid honey and products made with animal by-products, such as gelatin
Vegetarianism

Health Benefits

- Lower blood cholesterol and blood pressure levels
- Reduce the risk of heart disease, high blood pressure, and stroke
- Lower body mass index (BMI)
- Reduce the risk of Type 2 diabetes and some cancers
Vegetarianism

Nutrition Benefits

- Increased vitamins and minerals
- Increased fiber
- Lower intake of saturated fats
Vegetarianism

Nutrients of Concern

Are there nutrients of concern for vegetarians?

- Protein
- Vitamin B12
- Calcium
- Iron
Protein

Do plant based provide quality protein?

- Animal proteins are complete
- Plant based proteins are incomplete
Complementary Proteins combine incomplete proteins to make complete proteins.
Physical Activity Booster – Protein Predictions
Protein Requirements

- Teen females need 46 grams
- Adult females need 46 grams
- Teen males need 52 grams
- Adult males need 56 grams
# Protein Predictions Answers

Each of the sample menus provides the following amounts of protein:

<table>
<thead>
<tr>
<th>Diet Type</th>
<th>Protein Amount</th>
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<tbody>
<tr>
<td>Mixed diet</td>
<td>74 grams</td>
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<tr>
<td>Lacto-Ovo</td>
<td>63 grams</td>
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<tr>
<td>Vegan</td>
<td>61 grams</td>
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Vegetarianism

According to the Academy of Nutrition and Dietetics “…appropriately planned vegetarian diets, including total vegetarian or vegan diets, are healthful, nutritionally adequate, and may provide health benefits in the prevention and treatment of certain diseases. Well-planned vegetarian diets are appropriate for individuals in all stages of the life cycle…”
Diabetes

- Medical condition
- Body unable to produce or respond to insulin
- Insulin is a hormone that helps the body use glucose
Diabetes

- Disability
- Licensed medical providers
Diabetes

- **Type 1** – (Juvenile Diabetes or Insulin Dependent Diabetes) – pancreas stop producing insulin.

- **Type 2** – the cells in the body do not use insulin properly.
Type 1 Diabetes

- Generally occurs in children or adolescents
- Requires insulin injections due to pancreas not producing insulin
- Many theories on how people develop diabetes
Type 2 Diabetes

- Usually diagnosed in adults or obese children
- Needs pills and sometimes injections
- Weight loss may help to control
General Meal Plan

- 45-60 grams Carbohydrates per meal
- 15-30 grams Carbohydrates at snack
Carbohydrates

- Consistent carbohydrate intake
- Carbohydrate counting
- Blood glucose raises within 5 minutes
- Converted to nearly 100% with about 2 hours
Blood Glucose

Managing Blood Glucose

- How much carbohydrate
- What type of carbohydrate
- Balance between insulin and carbohydrates
Blood Glucose

- ↓ Carbohydrates than planned - blood glucose ↓
- ↑ Carbohydrates than planned - blood glucose ↑
Low Blood Glucose

- Sweatiness
- Shakiness
- Pale or flushed face
- Drowsiness
- Confusion
- Strange behavior
- Loss of consciousness
High Blood Glucose

- Frequent urination
- Increased thirst
- Blurred vision
- Strange behavior
- Fatigue
- Ketones
Activity

Diabetes Scenarios
End of Lesson 5
Nutrition Issues in the Media

Lesson 7
Nutrition Issues in the Media

- Nutrition studies create news
- New studies add to time-tested knowledge
Nutrition Issues in the Media

- Nutrition news takes many forms.
- Sorting the gems from the junk can be confusing.
Nutrition Issues in the Media

There are three easy steps to lose weight

- Increase exercise
- Decrease calories
- Keep a Food Record
Making Sense of Nutrition News

Is a quick fix promised?
Making Sense of Nutrition News

Are dire warnings given about a food?
Making Sense of Nutrition News

Do the claims sound too good to be true?

BE 8 POUNDS LIGHTER OVERNIGHT!
Does the report give simple findings from a complex study?

Red Meat = Healthy
Making Sense of Nutrition News

Is a single study being used for new advice?

Red Meat = Healthy
NEEDS MORE STUDY
Making Sense of Nutrition News

Do credible health organizations agree?
Are good and bad foods listed?

Good!

Bad!
Making Sense of Nutrition News

Is a product being sold?

Get yours TODAY!
Making Sense of Nutrition News

Do other scientists agree?
Making Sense of Nutrition News

Are the results reasonable?
Nutrition Issues in the Media

- Be open to new information.
- Think critically.
Nutrition Issues in the Media Magazine Activity

This Natural Compound MAKES FAT CELLS SELF-DISTRUCT

Lose A Pound A Day without dieting or going hungry!

The hormone cure for BELLY FAT!

CALORIES DON’T COUNT!

Breakthrough fruit extract MELTS 14 POUNDS FAST!
Physical Activity Booster

Flexibility
Nutrition Issues in the Media

- Internet
- Be Cautious
- Check with Other Reliable Sources

Nutrition 101: A Taste of Food and Fitness

Resource
Nutrition on the Web

The Internet is a great resource of information. Remember, anyone can post any information on the Web. Not every piece of information about nutrition on the Web is supported by science. Be careful about the Web sources you trust for food and nutrition information. A flashy site with persuasive claims may not stand up to the test of science.

Here are some trustworthy sources for food, nutrition, and health information. If you are not sure about the information you find at a Web site, investigate more. Visit these sites and see how the information compares. Telephone or write to a group if you prefer. Check out new information with another source. Decide if the latest nutrition news is trustworthy or too good to be true.

Organizations
Academy of Nutrition and Dietetics
120 South Riverside Plaza, Suite 2000
Chicago, IL 60606
www.eatright.org

International Food Information Council Foundation
1100 Connecticut Ave. NW, Suite 430
Washington, DC 20036
www.foodinsight.org

National Council Against Health Fraud
119 Fosse Street
Peabody, MA 01960
www.ncahf.org

School Nutrition Association
700 South Washington Street, Suite 300
Alexandria, VA 22314
www.schoolnutrition.org

Government Agencies
Food and Drug Administration
Office of Consumer Affairs and Information
5600 Fisher Lane, Room 16-85
Rockville, MD 20857
www.fda.gov

FDA Consumer online
www.fda.gov/consumers/consumerupdates/default.htm

Food and Nutrition Information Center
National Agricultural Library, Room 304
U.S. Department of Agriculture
10301 Baltimore Avenue
Beltsville, MD 20705
http://fnic.nal.usda.gov/

National Food Service Management Institute
Help Desk 800-321-3054
www.nfsmi.org

Online courses, resources, videos, and research for the child nutrition professional free of charge.
End of Lesson 7
Post-Quiz

Please complete.
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▪ **Mission:** To provide information and services that promote the continuous improvement of child nutrition programs

▪ **Vision:** To be the leader in providing education, research, and resources to promote excellence in child nutrition programs