- Keep a journal of what you eat every day for a week. You can do this by writing it down or by taking a picture of your food before every meal. Be sure to include, breakfast, lunch, dinner, drinks and snacks.
- At the end of the week, compare your journal with other students. How does the food you eat compare and contrast with other students? What types of food do you eat the most?
- Discuss the book "Hungry Planet: What The World Eats" by Peter Menzel and Faith D'Aluisio (ISBN 13: 978-1-58008-869-5). How does the amount of food you eat compare with that of other countries?
- Do you eat the same types of food as families around the world?
- How does the cost of a week's worth of food in America compare to that of other countries?

Nutrition Checklist

How does your diet stack up to recommendations for health? Take the simple test below to see if you're eating for health and energy!

Do you:

- ❒ Eat breakfast every day?
- ❒ Eat every 3-4 hours to give your body consistent energy?
- ❒ Drink at least six, 8-ounce glasses of water a day?
- ❒ Eat at least 2 to 2 ½ cups of vegetables a day?
- ❒ Eat at least 1 ½ cups of fruit a day?
- ❒ Get enough calcium (at least 3 cups of milk or another calcium-rich food) every day?
- ❒ Eat at least 5 ounce equivalents of meat, beans, fish or nuts a day?
- ❒ Eat at least 5 to 6 ounce equivalents of grain every day?

Nutrients -n- You

How do nutrients help our bodies? Eating just one type of food will not give our bodies adequate nutrition. Many nutrients play important roles in satisfying our bodies' needs. In order to receive all of the nutrients we need, consuming a variety of food is important. Here is how the most important nutrients work for you:

Use the pictures below to answer the questions.

Protein – Supplies energy, builds cells and blood and aids in the growth of healthy muscles, organs, skin and hair.

- Name some foods that are a good source of protein: _____

_____

Vitamins – Help your body release energy from carbohydrates, fats, and proteins, and help with other chemical reactions in the body.

- Which foods contain vitamins? _____

_____

Minerals – Build strong bones and teeth, make hemoglobin in red blood cells, help maintain body fluids, and help other body chemicals.

- What foods have minerals? _____

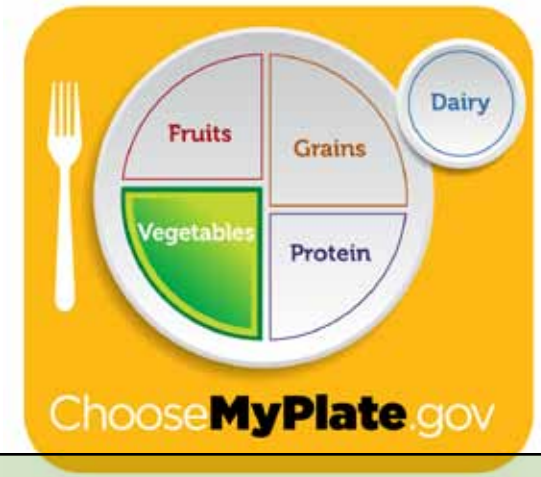
_____

Carbohydrates – Your major fuel. Mainly starches and sugars.

- Name some foods that contain carbohydrates:

Physical Activity

Physical activity simply means movement of the body that uses energy. Walking, gardening, climbing the stairs, playing sports, riding your bike, swimming, or dancing the night away are all good examples of being active. Children and teenagers should be physically active for 60 minutes every day, or most days.

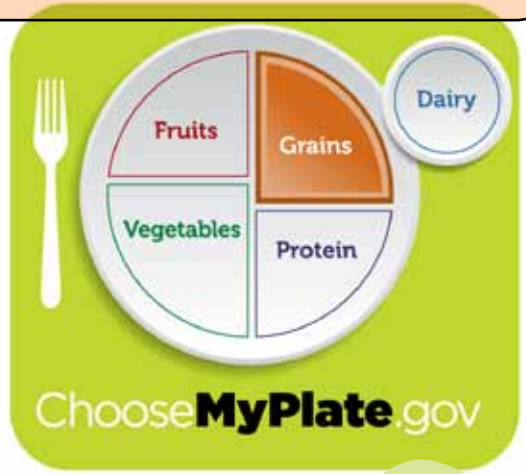


Make Half Your Grains Whole

Grains are plants such as wheat, rice, corn, barley, rye, oats, and sorghum. They have a high starch content and are an excellent source of energy. They are used to feed people and livestock. Farmers feed livestock farm-grown grain and commercially prepared mixed foods. Sometimes grain is eaten directly by eating the actual grain. Grain is also eaten indirectly when people eat livestock products such as meat, eggs, and milk. Grains can also be processed into flour, starches, and oil, which are used in breads, pastas, cooking oil, and other food products.

Grains are complex carbohydrates. Athletes get most of their energy for exercising from carbohydrates because they are the main source of energy for the red blood cells and the central nervous system. Carbohydrates also help the body use fat as energy.

Choose whole-grain foods, such as whole wheat bread, oatmeal, brown rice, and lowfat popcorn, more often in order to get the most nutritional value from grains.



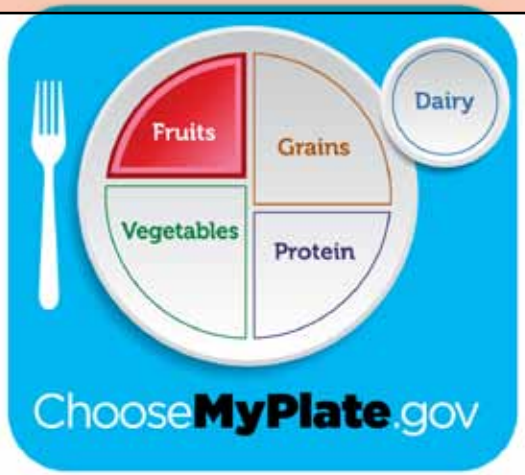
Vary Your Veggies

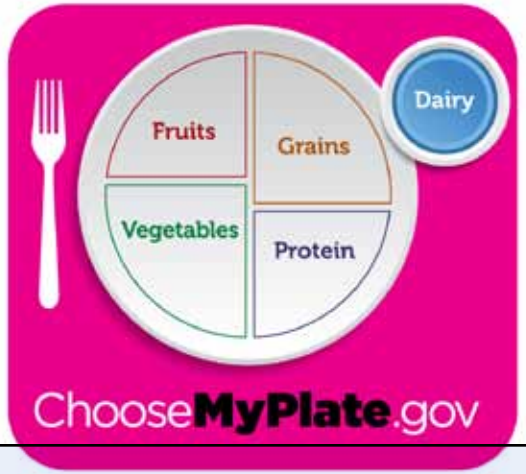
Vegetables provide us with protein, and are a good source of fiber, which helps the digestive system, and provide potassium, which regulates blood pressure and helps nutrients pass into cells. Vegetables such as potatoes, corn, and peas provide high amounts of protein. Vitamins C and A, provided by some vegetables, are necessary for the growth of body tissue. Vegetables such as broccoli, spinach, and green peppers are good sources of Vitamin C. Carrots, squash, and spinach provide high amounts of Vitamin A, which also helps the body fight infections and maintain healthy skin and eyes.

Focus on Fruits

After fruit is harvested by hand or machine, it is taken by truck to a packing house. Some orchards/fruit farms have their own packing houses. The fruit is washed, sorted, and packaged. The fruit is then delivered to stores or food processing plants by truck, train, or boat. In storage areas, the temperature is cool and oxygen is reduced. This helps to keep the fruit fresh. At the processing plants, fruits are used to make fruit drinks, pie fillings, jellies, and other products.

Fruits are a good source of Vitamin C. Vitamin C strengthens body cells, promotes healing of wounds and bones, and helps to resist infections. Athletes who have broken bones or other injuries should increase or take in Vitamin C to help their bodies heal. Vitamin C may also help your body fight colds and illnesses. Make sure not to take too much Vitamin C though, because the unneeded amount will simply leave your body unused.





Get Your Calcium-Rich Foods

Dairy farming is a leading agricultural field in the United States and produces about 22 billion gallons of milk each year. This milk is used to drink, or to make foods such as butter, ice cream, cheese, and other dairy products.

The dairy cow performs a very important job in our food production industry. Dairy cows can change grass and certain grains, which people cannot eat, into milk. A good milk-producing cow will give 20,000-30,000 pounds of milk each year.

The required daily servings from the milk group provide young athletes with calcium, protein, riboflavin, and Vitamin D. These nutrients can be found in milk, cheese, yogurt, cottage cheese, ice cream, and other dairy products. Calcium makes up the 206 bones that are in our bodies, so we need to take in calcium every day. Calcium helps our bones and teeth to grow and stay strong. It also helps to regulate muscle contraction, helps blood clot, and helps to conduct nerve impulses.

High Five For Healthy Eating

Trace your hand on a sheet of paper or cardstock. Cut out your traced hand. Label each of your fingers with a food group according to serving proportions: Fruit in your pinky finger, Vegetables in your fourth finger, Grains in your middle finger, Milk in your pointer finger, and Meat & Beans in your thumb. Also, write the food groups in the color that represents them on the Food Guide Pyramid: Fruit (red), Vegetables (green), Grains (orange), Milk (blue), and Meat & Beans (purple). Next, write exercise in the palm of your traced hand. On the back, list foods that go with each of the food groups and some exercise activities. Next, glue a popsicle stick to the middle of the palm. You now have something to help you remember your five main food groups. Remember fats and oils are not a food group, however, you do need some for good health.

Go Lean With Protein

Beef

The beef industry is made up of more than 1 million farms, ranches and businesses in the United States. Today, the production of beef involves ranchers, farmers, feed lot operators, meat packers and processors, truckers, and retailers. All of these people help to bring beef to us.

Total beef production in the United States is close to 26 billion pounds. Each person consumes about 61 pounds of beef each year. The breeds of cattle used today have been cross-bred for uniform and desirable characteristics. The ratio of fat to muscle, the animal's resistance to disease, and improved growth rate are characteristics that farmers have worked to improve in beef cattle.

Pork

Today, pigs are raised all across the United States. Producers raise pigs that weigh more, grow more efficiently, and yield more lean meat than ever before. Bacon, pork sausage, pork chops, and ham all come from pigs, along with over 500 different by-products. Pig by-products include items such as glass, china, floor wax, chalk, and crayons.

Pork and beef are important in our diet because each contains high amounts of protein. Protein helps to form muscle, hemoglobin, enzymes, and hormones. Athletes need more protein than non-athletes because exercise may promote a loss of muscle protein.

Eat lean or lowfat meat, chicken, turkey, and fish to get the daily recommended amount of protein. Also, change your tune with more dry beans and peas. Add chick peas, nuts or seeds to a salad, pinto beans to a burrito, or kidney beans to soup. Eggs are also high in protein.

Ingredients: Granola (whole grain rolled oats, sugar, rice flour, whole grain rolled wheat, partially hydrogenated soybean and cottonseed oils* with TBHQ and citric acid added to preserve freshness and/or sunflower oil with natural tocopherol added to preserve freshness), whole wheat flour, molasses, sodium bicarbonate, soy lecithin, carmel color, barley malt, salt, nonfat dry milk, corn syrup, crisp rice, (rice, sugar, salt, barley malt),peanut butter (peanuts, sugar, hydrogenated vegetable oil [cottonseed and/or rapeseed oil]*, salt), semisweet chocolate chips, (sugar, chocolate liquor, cocoa butter, soy lecithin, vanilla extract), high fructose corn syrup, peanut flavored chips (sugar, partially hydrogenated soybean and cottonseed oil*, partially defatted peanut flour, lactose, whey, dextrose, corn syrup solids, soy lecethin, salt, artificial flavor), corn syrup solids, glycerin, calcium carbonate, sorbitol, salt, natural and artificial flavors, water, BHT (a preservative), citric acid.
*Adds a dietarily insignificant amount of trans fat.
CONTAINS WHEAT, SOY, MILK AND PEANUT INGREDIENTS.

Food Label Facts

Study and discuss the food label and ingredient list from a granola bar. Then answer the questions below.

1. Which ingredients are grown on farms in Illinois?

2. How do the ingredients get from the farm into the granola bar? Discuss transportation and shipping, processing and stocking on store shelves.

3. If you ate two servings, how many calories would you be consuming?

4. You consumed 75 fat calories. How many granola bars did you eat?

5. After studying and discussing the food label and ingredient list, do you think granola bars are a healthy snack? Why or why not?

Nutrition Facts

Serving Size 1 Bar (24 g)
Servings Per Container 10

Amount Per Serving	
Calories 100	Calories from Fat 25
	% Daily Values*
Total Fat 3g	**4%**
Saturated Fat 1g	**4%**
Trans Fat 0g	
Sodium 95g	**4%**
Total Carbohydrate 17g	**6%**
Dietary Fiber 1g	**4%**
Sugars 7g	
Protein 2g	
Calcium 10% • Iron	**4%**

Not a signifigant source of Cholesterol, Vitamin A, Vitamin C.

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

Hopping For Your Health

Exercise is a very important part of staying healthy. Children and teenagers need at least 60 minutes of exercise every day, or most days. It can strengthen your heart and muscles, lower your body fat, and reduce your risk of many diseases. Check your resting heart rate before doing any exercise. Record your heart rate. Next, jump rope for 1 minute. Check your heart rate again after jumping rope.

1. Resting Heart Rate (before exercising): _____
2. Heart Rate after jumping rope: _____
3. What is the difference (subtract your resting heart rate from your heart rate after jumping rope): _____

Try testing your heart rate doing different exercises for the same amount of time. You could jump rope for 5 minutes, run fast for 5 minutes, walk fast for 5 minutes, play basketball for 5 minutes, etc. Or do it as a class and split up into groups to test the exercises. (Don't forget to always retest your resting heart rate before doing an exercise)

Sorting It All Out

What you will need:
6 Hula Hoops
Plastic food or pictures of food items that represent each food group

Activity Instructions:
Label each hula hoop as one of the food groups-Fruits, Vegetables, Grains, Milk, Meat & Beans, and Fats & Oils and place on the floor. (Another idea: Get hula hoops that represent the colors of each food group on the food guide pyramid)

Hand out the plastic food or pictures of food to your students and then have them come up and put them in the hula hoop that they think it belongs in.

After they are done, go through and discuss the foods that are in each category. If foods are placed in the wrong category, discuss why they do not belong, and what category they should be in.

Lesson Extenders:

- Label the hula hoops with nutritional information. For example: Carbohydrates, Protein, Calcium, Vitamins, Minerals. Have the students sort out their food according to what nutritional value would be most gained by eating that particular food. For example: Milk would go in the calcium hoop.
- Label the hula hoops with continents and have the students try to figure out which continents are responsible for growing each food item. This is a great way to talk about different countries, climates, temperatures, soil types, trade, etc.

Movers & Shakers

Susan Kundrat, MS, RD, CSSD

Sports and Wellness Dietitian
President, Nutrition on the Move, Inc.
Urbana, IL

Can you describe what your job entails?
I work with athletes and active people of all ages (especially college athletes at the University of Illinois, Northwestern University, and Bradley University) to help them boost their training and performance with nutrition. I help them learn what to eat to get the most out of their bodies.

What role does nutrition play in athletics?
Nutrition is the foundation for training and sports performance. Eating right before, during and after workouts is what makes a good athlete a great athlete. Getting the right mix of foods, fluids, and key vitamins and minerals helps athletes train harder and compete at their best.

What is your favorite part of your job?
I am able to see first-hand how athletes improve their training and boost performance on the field, on the court, or in their sport by choosing to fuel their bodies well. Plus, athletes learn how to stay healthy the rest of their lives by eating well. The best part is that it's not that hard for athletes to adopt a solid eating plan.

What courses in school helped prepare you for this job?
Courses in biology, chemistry, food science, counseling, public speaking, and exercise science were all very helpful in preparing me for this career. Plus, I took several courses in dietetics, the study of how certain diets help people prevent disease, manage a disease, or stay healthy. Then I volunteered with many teams before landing a career in sports nutrition.

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Jim Painter, PhD, RD

Chairman, School of Family and Consumer Sciences
Eastern Illinois University
Charleston, IL

How did you become interested in nutrition?
It goes way back to when I was a kid. I used to read the nutrition labels on the side of cereal boxes while I was eating breakfast. I would compare the labels and note when one was better than the other.

What is your favorite part of your job?
I like to see when I make a difference in people's lives. Everyone wants to know how to lose weight and why they're gaining. So many people are hopeless when it comes to losing weight. I am happy when I can help someone lose weight by giving them basic steps to follow.

What courses in school helped prepare you for this job?
They all did. All of the subjects I never thought I would use, like math, I do! Psychology and sociology teach you how to deal with people, which I do on a daily basis. The broad education we get as kids is very valuable.

Your documentary discusses fast food and portion size. What should students know about portion size?
You can still eat fast food, but you have to make healthy choices and choose the right portions. A small size today is bigger than the original small. Restaurants are making portion sizes larger so you have to choose smaller.

Information in this Ag Mag may be linked to the following Illinois Learning Standards: 1.B.3a; 1.B.3d; 1.C.3a; 1.C.3f; 4.A.2b; 4.B.2b; 6.B.3a; 7.C.2a; 13.B.2c; 15.B.2a; 17.C.2b; 17.C.3a; 20.A.2a; 20.B.2a

Information in this Ag Mag may be linked to the following Illinois Assessment Frameworks: 1.5.08; 1.5.07; 1.5.15; 1.5.13; 6.4.10; 7.5.02; 13.4.11; 13.4.12