

Grade 7

Designing a Healthy Breakfast

Healthful Living Objective(s)

- 4.01 Demonstrate the ability to successfully select healthy food choices and plan meals that emphasize the principles of the Dietary Guidelines for Americans.
- 4.04 Compare and contrast the similarities and differences among protein, fats, and carbohydrates regarding nutritional value and food sources.

English Language Arts Objective(s)

- 1.03 Interact in group settings by responding appropriately to comments and questions, offering personal opinions confidently without dominating, giving appropriate reasons that support opinions, and soliciting and respecting another person's opinion.

Teacher Resource(s)

- U.S. Department of Agriculture, School Breakfast Toolkit, *Benefits of Breakfast Flyer*, www.fns.usda.gov/cnd/Breakfast/expansion/benefitsbreakfast.pdf
- U. S. Department of Agriculture, *Using MyPlate Along with MyPyramid*, www.ChooseMyPlate.gov/downloads/MyPlate/UsingMyPlateAlongWithMyPyramid.pdf
- N.C. Division of Public Health, North Carolina Nutrition Education and Training Program, *Students Succeed with School Meals, Fact Sheet - What's on the Menu?*, www.nutritionnc.com

Material(s) Needed

- *Breakfast Benefits* Transparency
- U.S. Department of Agriculture, *MyPlate* graphics slick, www.cnpp.usda.gov/Publications/MyPlate/GraphicsSlick.pdf
- U.S. Department of Agriculture, *MyPyramid Mini-Poster*, www.mypyramid.gov/tips_resources/printmaterials.html
- *Released Action Breakfast* Transparency
- School Breakfast Menu

Handout(s)

- *Breakfast Benefits*
- *What's a Healthy Breakfast?*

Note that, as of June 2011, *MyPyramid* was replaced with *MyPlate* as a way to understand how to eat healthfully. It is important to know that you may continue to use existing *MyPyramid* educational materials, such as the *MyPyramid Mini-Poster*. This is because the information about what and how much to eat has not changed. Be aware that on *MyPlate* the Meat & Beans Group is called the Protein Foods Group and the Milk Group is called the Dairy Group.

Focus

Begin this lesson by discussing the benefits of breakfast. Distribute the *Breakfast Benefits* handout. Ask students to read each benefit and decide on their own which column it belongs in: this benefit helps a person learn, this benefit improves a person's quality of life, or this benefit does both. Display the *Breakfast Benefits* transparency. Read each benefit aloud. Ask students whether they had heard of this benefit before completing the handout. Ask students why this benefit is important to students their age. Ask students to raise their hands to indicate which column they think the benefit belongs in. For a few of the benefits, ask students who hold different opinions to explain the rationale for their choices.

Continue the discussion of the benefits of breakfast by asking:

- Who has ever experienced hunger when they did not eat breakfast?
- How does hunger affect your ability to learn? *Accept all reasonable answers from students.*
Answer: It interferes with learning. Hunger makes it difficult to concentrate.
- How does hunger affect how your body feels? *Accept all reasonable answers from students.*
Answer: Hunger may make you feel uncomfortable. It may give you a stomachache or headache. When you are hungry, you may feel tired or irritable.

Explain that students who eat a nutritious breakfast feel better and are better able to pay attention and concentrate in class compared to students who skip breakfast. Because students who eat breakfast are more likely to get the nutrients their bodies need, breakfast is a very important habit for keeping their bodies healthy.

Teacher Input

Review the Five Food Groups with students, using the *MyPlate* graphics slick and the *MyPyramid Mini-Poster*. The Five Food Groups from *MyPlate*, formerly *MyPyramid*, are the foundation for a healthy diet. Explain to students that in determining whether a breakfast is healthy and balanced there is a simple strategy - include items from at least three of the Five Food Groups.

Introduce the concept of a released action breakfast. Display the *Released Action Breakfast* transparency. Read the top three lines of the transparency out loud to students.

- Carbohydrate takes about an hour to digest.
- Protein takes about two hours to digest.
- Fat takes about four to six hours to digest.

Summarize and explain the graphics. The ideal breakfast has some carbohydrate, some protein and some fat, so energy is released into your body throughout the morning. The graph depicts how a healthy, balanced breakfast (for example, whole grain cereal, fruit and low fat milk) slowly releases energy into your body throughout the morning. This is referred to as a "Released Action Breakfast".

Carbohydrates come in two forms: simple and complex. The solid line represents simple carbohydrates, better known as sugar. Simple carbohydrates include naturally occurring sugars (found in fruit, milk and table sugar) and sugars added to foods. The graph shows what happens when you eat sugary foods, such as candy and soft drinks. The solid line shows how your body first receives the quick energy from the simple carbohydrates. When you eat only simple carbohydrates (sugary food), your energy rises quickly and falls quickly. When the solid line hits the bottom after an hour or so, you experience hunger.

Complex carbohydrates continue to provide energy after the simple carbohydrate energy has faded. The dashed line shows how energy from complex carbohydrates takes longer to be digested or “get into your system”. Complex carbohydrates include starch and fiber which come from whole grains, fruits and vegetables.

As the complex carbohydrate energy fades, the dotted line moves upward representing the energy from protein that is being digested and entering your system. Foods containing protein include meat, poultry, fish, eggs, milk, beans, nuts, seeds, grains and vegetables.

As the energy from protein starts fading, energy from fat, represented by the alternating dashed and dotted line, kicks in to keep you going. Types of fat include unsaturated, saturated, and *trans* fats. Unsaturated fat comes from vegetable oils, flaxseed, walnuts and fatty fish. Saturated fat comes from meats, dairy products, butter, lard and tropical oils. *Trans* fat comes from processed baked goods, fried foods, margarine and shortening. Saturated and *trans* fat should be limited.

If a breakfast includes at least three of the Five Food Groups, it will provide some carbohydrate, protein and fat, resulting in released action energy. Aiming for at least three of the Five Food Groups will provide your body with the nutrients it needs to start the day.

Practice and Assessment

Distribute the *What’s a Healthy Breakfast?* handout. Ask students to write the names of the Five Food Groups at the top of the handout underneath the criteria for a healthy breakfast. Students should then examine each breakfast menu on the handout and answer the corresponding questions for each:

- Does this breakfast contain items from three of the Five Food Groups?
- Does this breakfast include some carbohydrate, protein and fat?
- Is it a healthy breakfast? Why or why not?

After students have completed the handout, discuss their findings by reviewing which of the Five Food Groups are represented in each menu, identifying whether each breakfast is a released action breakfast, and deciding whether each menu is a healthy breakfast.

Find out if the School Breakfast Program is offered in your school. If it is, find out what types of service options are available, i.e., traditional school breakfast in the cafeteria, school breakfast in the classroom, grab n’ go school breakfast, etc. Also, obtain a copy of and review the school

breakfast menu. Encourage students to consider choosing school breakfast each morning. School breakfast menus are planned to provide choices from three to four of the Five Food Groups as well as a balance of carbohydrate, protein and fat and other nutrients that students need.

Additional Activities

If your school offers the School Breakfast Program, obtain a copy of the school breakfast menu. Have students examine the menu and answer the questions below for the choices offered. Discuss findings together as a class.

- Does this breakfast contain items from at least three of the Five Food Groups?
- Does this breakfast include some carbohydrate, protein and fat?
- Is it a healthy breakfast? Why or why not?

Adapted from *Bridges to Wellness, Connecting School Meals and Classroom Learning: Make Breakfast Count*, School Nutrition Foundation and National Dairy Council. Available at www.nutritionexplorations.org.

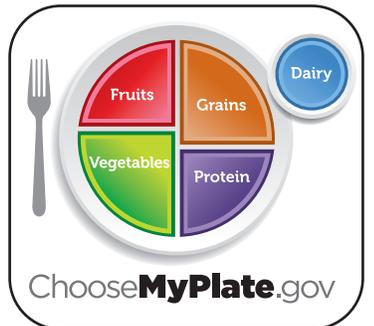
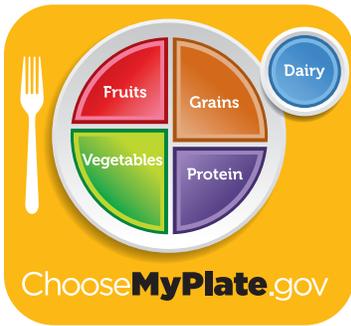
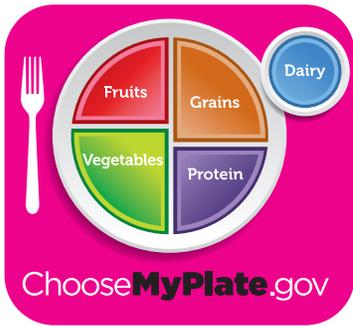
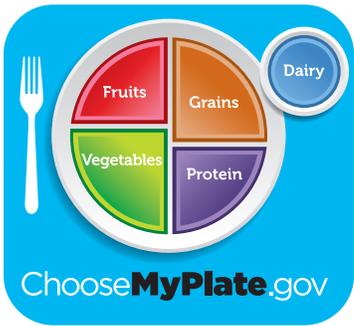
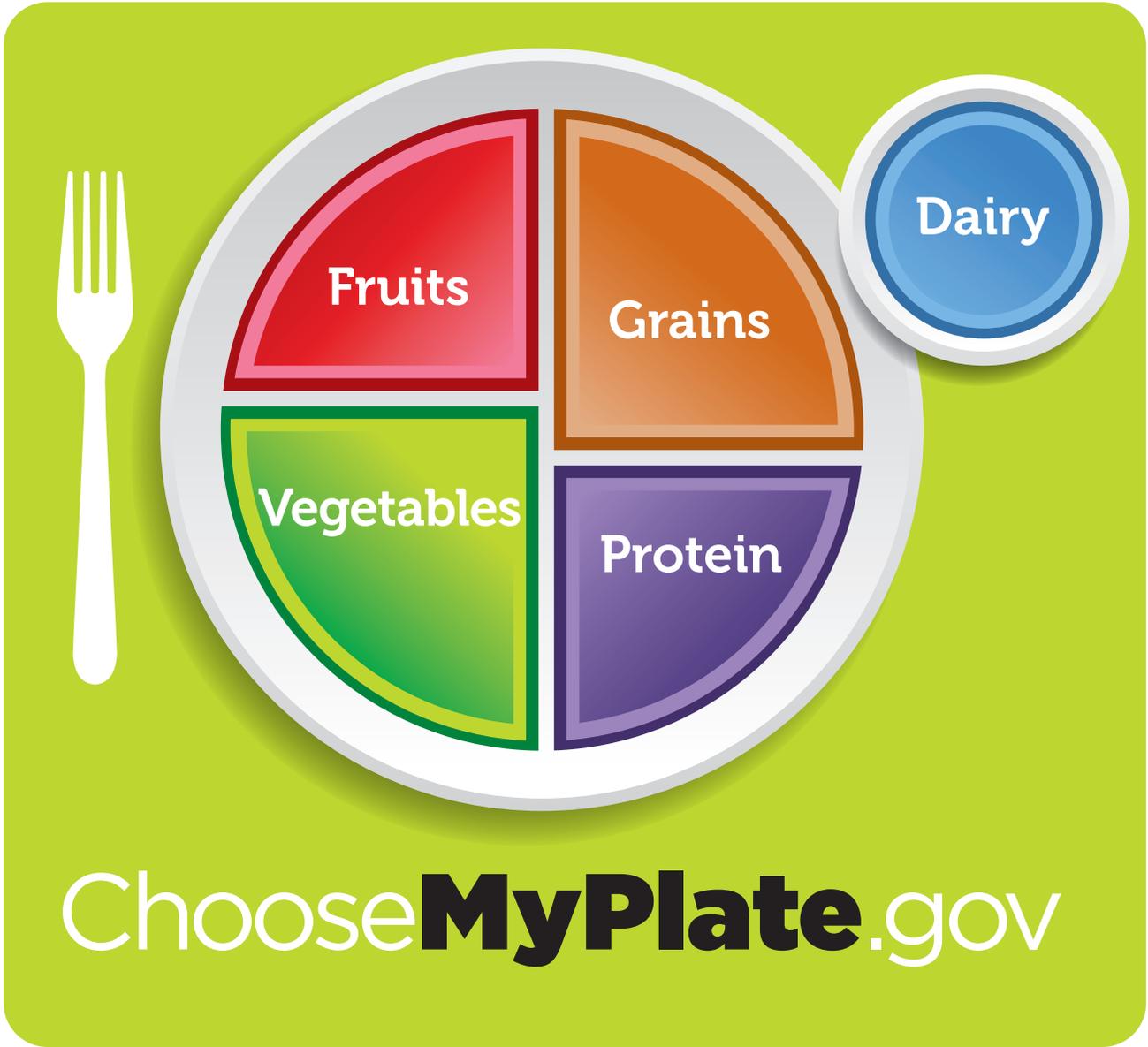
Breakfast Benefits

Directions:

1. Read each benefit of eating breakfast listed below.
2. Decide: Is this a benefit that helps a person learn? Is this a benefit which helps improve a person's quality of life? Or does this benefit do both?
3. Place a check in the column that reflects your opinion.

Benefit of Eating Breakfast	This benefit helps a person learn	This benefit improves a person's quality of life	This benefit does both
1. Students who eat breakfast may do better in math than students who don't eat breakfast.			
2. Students who eat breakfast have more energy than students who don't.			
3. Students who eat breakfast are more likely to get along with classmates than students who don't eat breakfast.			
4. Students who eat breakfast may do better on tests than breakfast skippers.			
5. Breakfast eaters may be better able to concentrate on schoolwork than breakfast skippers.			
6. Students who eat breakfast may make fewer errors in school than students who don't eat breakfast.			
7. Breakfast eaters are calmer and less anxious than breakfast skippers.			
8. Students who eat breakfast may have faster memory recall than students who skip breakfast.			
9. Students who eat breakfast are more likely to get the key nutrients they need to stay healthy than breakfast skippers.			
10. Breakfast eaters are less likely to be overweight than breakfast skippers.			

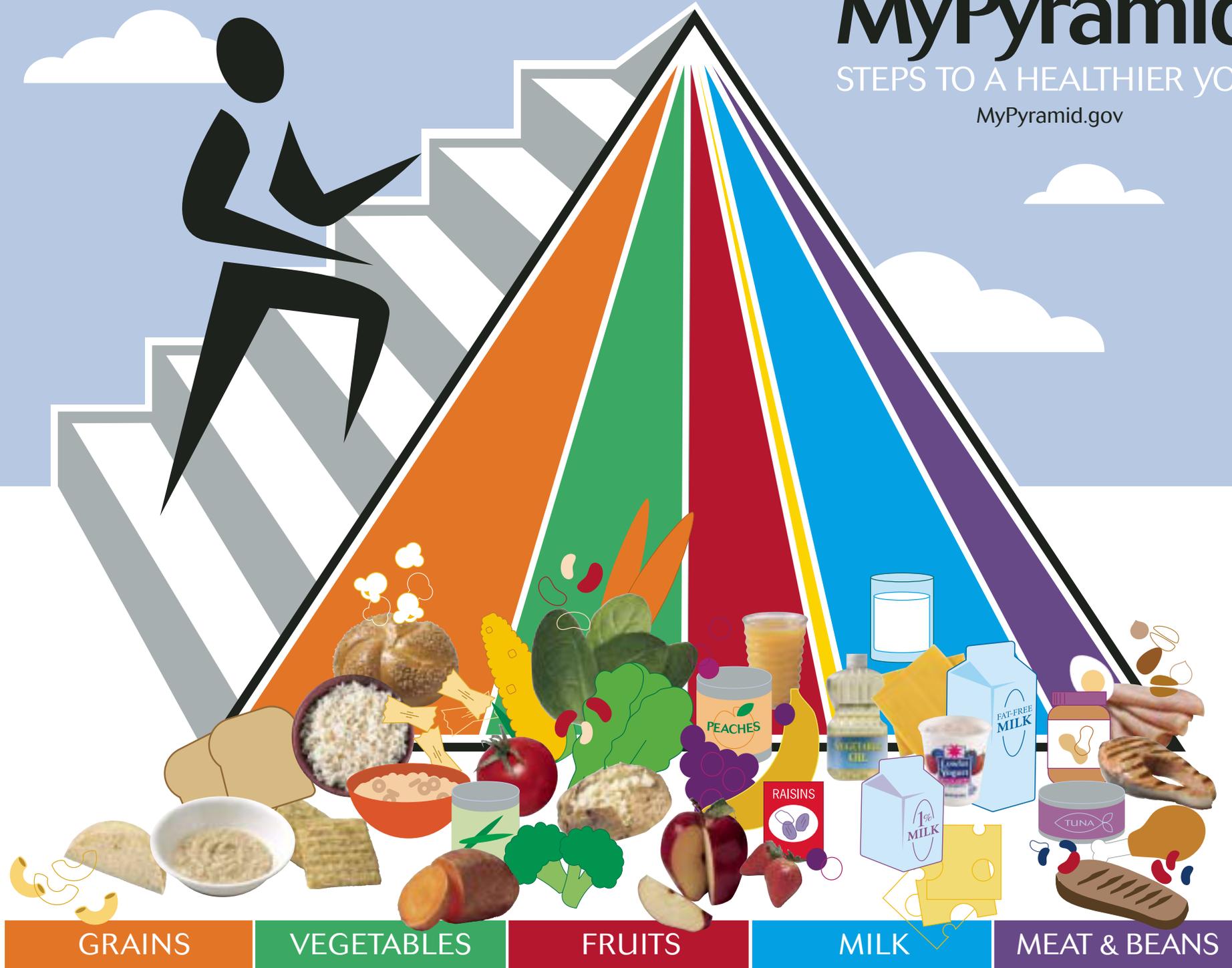




MyPyramid

STEPS TO A HEALTHIER YOU

MyPyramid.gov



GRAINS

VEGETABLES

FRUITS

MILK

MEAT & BEANS

GRAINS Make half your grains whole	VEGETABLES Vary your veggies	FRUITS Focus on fruits	MILK Get your calcium-rich foods	MEAT & BEANS Go lean with protein
<p>Eat at least 3 oz. of whole-grain cereals, breads, crackers, rice, or pasta every day</p> <p>1 oz. is about 1 slice of bread, about 1 cup of breakfast cereal, or 1/2 cup of cooked rice, cereal, or pasta</p>	<p>Eat more dark-green veggies like broccoli, spinach, and other dark leafy greens</p> <p>Eat more orange vegetables like carrots and sweetpotatoes</p> <p>Eat more dry beans and peas like pinto beans, kidney beans, and lentils</p>	<p>Eat a variety of fruit</p> <p>Choose fresh, frozen, canned, or dried fruit</p> <p>Go easy on fruit juices</p>	<p>Go low-fat or fat-free when you choose milk, yogurt, and other milk products</p> <p>If you don't or can't consume milk, choose lactose-free products or other calcium sources such as fortified foods and beverages</p>	<p>Choose low-fat or lean meats and poultry</p> <p>Bake it, broil it, or grill it</p> <p>Vary your protein routine – choose more fish, beans, peas, nuts, and seeds</p>

For a 2,000-calorie diet, you need the amounts below from each food group. To find the amounts that are right for you, go to MyPyramid.gov.

Eat 6 oz. every day	Eat 2 1/2 cups every day	Eat 2 cups every day	Get 3 cups every day; for kids aged 2 to 8, it's 2	Eat 5 1/2 oz. every day
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Find your balance between food and physical activity

- Be sure to stay within your daily calorie needs.
- Be physically active for at least 30 minutes most days of the week.
- About 60 minutes a day of physical activity may be needed to prevent weight gain.
- For sustaining weight loss, at least 60 to 90 minutes a day of physical activity may be required.
- Children and teenagers should be physically active for 60 minutes every day, or most days.



Know the limits on fats, sugars, and salt (sodium)

- Make most of your fat sources from fish, nuts, and vegetable oils.
- Limit solid fats like butter, stick margarine, shortening, and lard, as well as foods that contain these.
- Check the Nutrition Facts label to keep saturated fats, *trans* fats, and sodium low.
- Choose food and beverages low in added sugars. Added sugars contribute calories with few, if any, nutrients.




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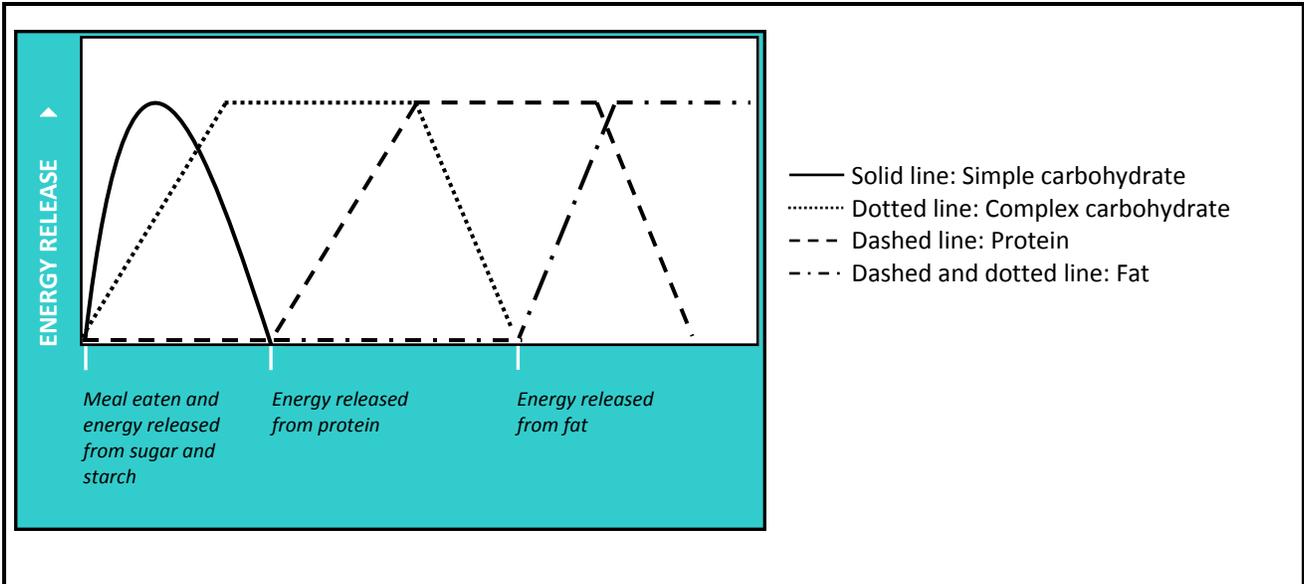


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Released Action Breakfast

Aim for a healthy breakfast that includes a balance of carbohydrate, protein and fat.

- Carbohydrate takes about an hour to digest.
- Protein takes about two hours to digest.
- Fat takes about four to six hours to digest.



A Released Action Breakfast is...

What's a Healthy Breakfast?

A healthy balanced breakfast should include at least three of the Five Foods Groups. Write the names of the Five Food Groups. _____

Examine the breakfast menus below. Then, answer the questions for each.

MENU 1

- 1 medium banana
- 1 ounce of whole grain cereal
- 1 cup of fat free milk
- 2 graham crackers

- Does this breakfast contain items from three of the Five Food Groups?
YES NO
- Does this breakfast include some carbohydrate, protein and fat?
YES NO
- Is it a healthy breakfast? YES NO Why or why not?

MENU 2

- Powered donuts
- Fruit soda

- Does this breakfast contain items from three of the Five Food Groups?
YES NO
- Does this breakfast include some carbohydrate, protein and fat?
YES NO
- Is it a healthy breakfast? YES NO Why or why not?

MENU 3

- 2 slices of vegetable pizza

- Does this breakfast contain items from three of the Five Food Groups?
YES NO
- Does this breakfast include some carbohydrate, protein and fat?
YES NO
- Is it a healthy breakfast? YES NO Why or why not?

MENU 4

- 1 fried egg
- 2 pieces of bacon
- 1 sausage patty

- Does this breakfast contain items from three of the Five Food Groups?
YES NO
- Does this breakfast include some carbohydrate, protein and fat?
YES NO
- Is it a healthy breakfast? YES NO Why or why not?

MENU 5

- 2 large stalks of celery
- 1/4 cup of hummus
- 1 ounce of string cheese
- 3 rye crackers

- Does this breakfast contain items from three of the Five Food Groups?
YES NO
- Does this breakfast include some carbohydrate, protein and fat?
YES NO
- Is it a healthy breakfast? YES NO Why or why not?

MENU 6

- 2 slices of whole wheat toast
- Butter
- 1 apple
- 8 ounce container of low fat yogurt

- Does this breakfast contain items from three of the Five Food Groups?
YES NO
- Does this breakfast include some carbohydrate, protein and fat?
YES NO
- Is it a healthy breakfast? YES NO Why or why not?

