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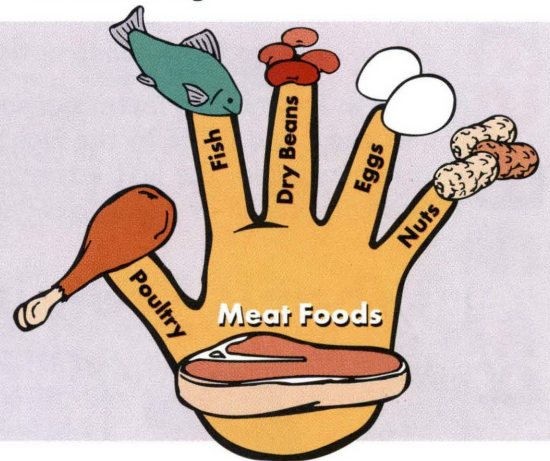
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Beef: A "Hand-y" Food

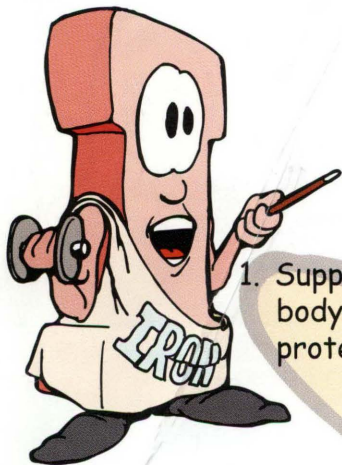
Kathleen M. Stadler, Jumanah S. Essa, and Mark L. Wahlberg*

Important to eat a variety of foods to build a strong body. The Guide Pyramid is a guide to help you eat many different foods each day. The Meat, Poultry, Fish, Dry Beans, Eggs, and Nuts Group is a variety of different foods.

You can remember the different foods in this group by looking at your hand. The palm of your hand is meat. Meat foods include foods from animals such as cattle (beef), pigs (pork), and sheep (lamb). The fingers are the poultry, fish, dry beans, eggs, and nuts foods. They are all "hand-y" foods.



The Meat, Poultry, Fish, Dry Beans, Eggs, and Nuts Group:



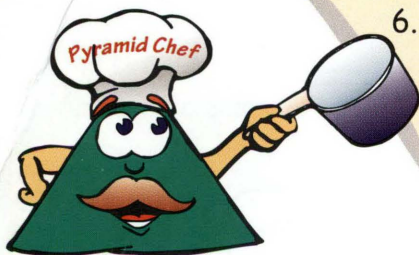
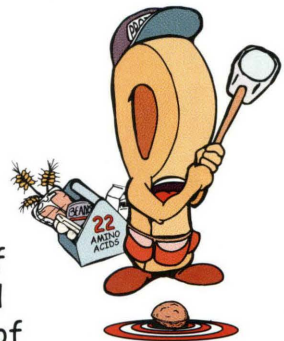
1. Supplies your body with protein!

2. Is an excellent source of iron!

3. Is full of zinc!

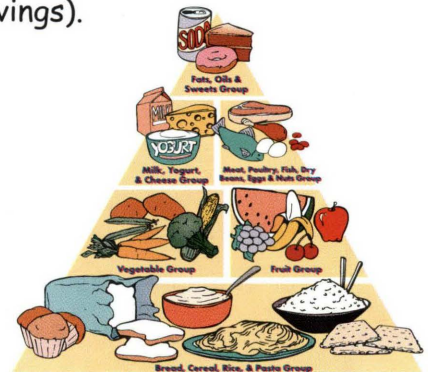
4. Eat 2-3 servings each day!

5. 1 serving size = 1/2 cup cooked dry beans, 1 egg, or 2 Tbsp. of peanut butter, and counts as 1 ounce of lean meat (about 1/3 servings).



6. 1 serving size = 2-3 ounces of cooked lean meats, poultry, and fish. (about equal to the size of the palm of your hand)

- = 1 regular hamburger
- = 1 medium chicken leg
- = 3 fish sticks



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Grant funds provided by the Virginia Beef Industry Council, P.O. Box 9, Daleville, VA 24083, (540) 992-1992, www.vabeef.org



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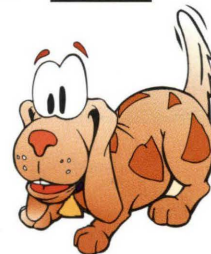
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Where's the Beef?



Let's use beef foods as an example to learn about the main nutrients in this food. Remember, beef is a very "hand-y" food for active kids. Beef foods are good for you because they contain protein, iron, and zinc. Complete the activities to learn about the main nutrients -- protein, iron, and zinc. Discover the variety of different foods by completing the Beef Border Game.

Beef Border Game Instructions:

Fill in the missing letters around the border to correctly spell the name of different foods. Start at the * and fill in to the right. The last letter of onword will be the first letter of the next word. For example, the last letter of kiwi, which is an "I," will start the next word, "ice cream." After completing all of the words, circle all the foods that can be made from beef.

What is Protein?



Hi! I am a nutrient called Protein. I help to build and repair your body. You need to eat 2 to 3 servings of protein-rich foods each day so I can do my work in your body. I am made up of 22 building blocks called amino acids. All 22 amino acids are needed to build and repair your body.

Protein is found in animal and plant foods. Proteins in animal foods have all 22 amino acids that your body needs to properly function. For example, meat from cattle (beef) has all 22 building blocks. This is called a complete protein.

Protein is also found in some plant foods; for example, nuts, dry beans, and grains. Plant proteins do not have all 22 amino acids. These foods are called incomplete proteins. You have to eat two plant proteins together to get all 22 amino acids.



How Much Protein Do You Need Each Day?

The amount of protein that you need to eat depends on your body weight. Protein is measured in units called grams (g). You need to eat 0.35 grams of protein for every pound of body weight.

(your body weight) x 0.35 g = the number of grams of protein you need a day

For example, a boy who weighs 120 pounds:

120 pounds X 0.35 g = 42 grams of protein each day

Now calculate how much you need:

(your weight)

X 0.35 g

Grams of protein a day

1 regular hamburger = 24 g of protein

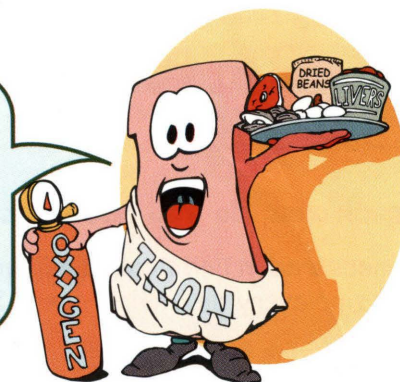


Answers:
KIWICREAMEATBALLSOYBEANUTSAUSAGEGSOUPACHOTDOGAPESTRA
WBERRYAMEATLOAFISHAMBURGEROASTBEEFRISTEAK
meatballs, sausage, hotdog, meatloaf, hamburger, roast beef, steak

What is iron?

Hi, I am a mineral called Iron. I am used in every cell of your body. I help carry oxygen to your cells and keep your blood strong. Most foods in the Meat, Poultry, Fish, Dry Beans, Eggs, and Nuts group are great sources of iron. However, iron from animal foods is better absorbed and used by your body than iron from plant foods.

How much iron do you need each day? Iron is measured in units called milligrams (mg). Boys ages 10-14 years need about 12 milligrams of iron every day and girls ages 10-14 years need about 15 milligrams of iron every day.



Iron Power Game

Let's see if you are eating enough iron in your diet. The foods below are divided into different star (*) groups. Foods have different amounts of iron. Each star (*) equals about 1 milligram of iron. The more stars a food has, the more iron power it has. Foods are in alphabetical order in the chart.

1. Think about the foods that you ate today or yesterday. Find and circle them in the list below.

2. Multiply the "Star Group" number by the number of foods you ate for each "Star Group."

Example: If you ate 1 cup of pinto beans and a 3 oz. hamburger patty, then multiply 3 stars x 3 = 9 mg of iron. Remember that you ate two servings of beans; this doubles your iron from beans.

5 stars	5 x		=	
4 stars	4 x		=	
3 stars	3 x		=	
2 stars	2 x		=	
1 star	1 x		=	
0 stars	0		=	

Subtotal of stars =

Number of milligrams of iron =

3. Compare the total number of stars (milligrams) for your day with your recommended amount.

Boys: Did you get at least 12 mg? Yes or No

Girls: Did you get at least 15 mg? Yes or No

4. Name two iron-rich foods that you can add to your diet.

1.

2.

★★★★★ = Best sources of iron
(Foods with at least 5 mg of iron)

beef liver (3 oz.)
chick peas (1/2 cup)
clams (3 oz.)
deer meat (3 oz.)
enriched breads (1 slice)
navy beans (1/2 cup)
oysters (3 oz.)
soy flour (1/4 cup)
tofu (1/2 cup)

★★★★ = Foods with about 4 mg of iron

cereals (3/4 cup - 1 cup)
figs (1/2 cup)
soy beans (1/2 cup)

★★★ = Foods with about 3 mg of iron

beans (1/2 cup): including black beans, lentils, lima beans, kidney beans
corned beef (3 oz.)
dark meat turkey (3 oz.)
hamburger patty (3 oz.)
spinach (1/2 cup)
steak (3 oz.)

★★ = Foods with about 2 mg of iron

bagels (1/2 bagel)
chicken (3 oz.)
fish (3 oz.): including salmon, tuna
meatloaf (3 oz.)
pinto beans (1/2 cup)
ribs (3 oz.)
sunflower seeds (1/4 cup)
white meat turkey (3 oz.)

★ = Foods with about 1 mg of iron

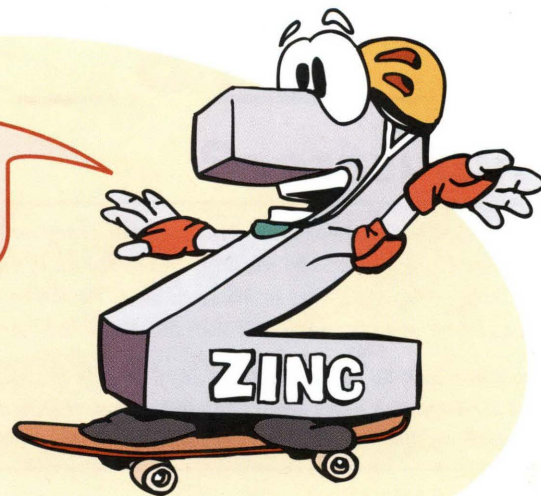
broccoli (1/2 cup)
bologna (3 oz.)
green beans (1/2 cup)
hotdog (1 hot dog)
peanut butter (2 tbsp.)
pretzels (1/2 cup)

No Stars = Foods that do not contain iron

bacon
eggs
fruits
milk
other vegetables
popcorn

What is Zinc?

Hi! I am a mineral called Zinc. I am found in small amounts in your body. I work with protein in every cell of your body to help break down the carbohydrates, proteins, and fats that you eat. You really need me when you exercise or play sports. I also help to keep your immune system healthy.



How much zinc do you need each day?

Zinc is measured in units called milligrams (mg). Boys ages 11-14 need 15 mg of zinc every day. Girls ages 11-14 need 12 mg of zinc every day.

Examples of zinc in one serving of beef:

- Steak- 5.03 mg
- Roast- 6.0 mg
- Ribs- 3.94 mg
- Hamburger- 7.27 mg

Raising Beef Cattle in Virginia

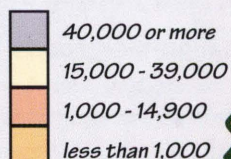
Raising beef cows is a big farming business in Virginia. Virginia has a total of 675,000 to 750,000 beef cows on 23,000 farms. One beef animal produces at least 400 pounds of lean, tasty beef. Americans eat more ground beef than steaks or roasts. The number one way we consume ground beef is as hamburgers.

Does Your County Raise Beef Cattle?

1. Find the county that you live in on the map. Circle it.
2. Does your county raise beef cattle? Yes or No.
3. How many cows are raised in your county?
4. What are your two favorite beef foods?

A. _____

B. _____



1999
All Cattle in
Virginia

Cattle College

1. Circle the two regions of Virginia where most cattle are found?

Piedmont

Mountain (Ridge and Valley)

Tidewater

2. How much do beef cattle weigh when they are sold for human consumption?

500-600 pounds

1050-1350 pounds

1500-1700 pounds

3. The majority of cattle in Virginia are raised in _____. (circle one)

Barns

Pastures

Feedlots

Check out www.burgertown.com for more fun beef games.



To learn more about beef cattle and agriculture in Virginia, visit 4-H Virtual Farm at www.ext.vt.edu/resources/4H/virtualfarm/

Answers: Piedmont and Mountain, 1050-1350 pounds, pastures