

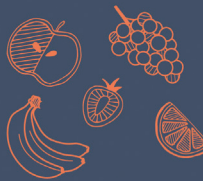






BUILDING BLOCKS FUEL YOUR FUN



Do you ever wonder what you should be eating? Lots of Americans wonder what to eat, so MyPlate was created to show what to put on your plate.

There are five food groups. It is important that you eat foods from each group every day. No one food has all the nutrients you need – that's why you need to eat a variety of foods.

| | | | | |
|---|---|---|--|---|
| <p>FRUIT</p> <p>Eat the colors of the rainbow!</p>  | <p>VEGETABLES</p> <p>The brighter the color, the better you grow!</p>  | <p>GRAINS & STARCHES</p> <p>Eat the whole grain and stay full!</p>  | <p>PROTEIN</p> <p>Meat, eggs, and things in a pod build strength in your bod!</p>  | <p>DAIRY</p> <p>Enjoy three a day to keep your bones and teeth healthy and strong!</p>  |
|---|---|---|--|---|

Graphics adapted from Texas Beef Council, BeefLovingTexans.com/FuelYourFun

WHAT'S ON YOUR PLATE



FRUIT: Any fruit or 100% fruit juice counts as part of the Fruit Group. Fruits may be fresh, canned, frozen, or dried, and may be whole, cut-up, or pureed. Choose whole or cut up fruits more often than fruit juice. Use fruits as snacks, salads or desserts.



VEGETABLES: Vegetables may be raw or cooked; fresh, frozen, canned, or dried/ dehydrated; and may be whole, cut-up, or mashed. Based on their nutrient content, vegetables are organized into 5 subgroups: dark-green vegetables, starchy vegetables, red and orange vegetables, beans and peas, and other vegetables.



PROTEIN: All foods made from meat, poultry, seafood, beans and peas, eggs, processed soy products, nuts, and seeds are considered part of the Protein Foods Group. Try eating protein that has been grilled, broiled or roasted.



GRAINS: Any food made from wheat, rice, oats, cornmeal, barley, or another cereal grain is a grain product. Bread, pasta, breakfast cereals, grits, and tortillas are examples of grain products. Foods such as popcorn, rice, and oatmeal are also included in the Grains Group.



DAIRY: All fluid milk products and many foods made from milk that retain their calcium content, such as yogurt and cheese, are part of the Dairy Group. Calcium-fortified soy beverage is also included. Foods made from milk that have little to no calcium, such as cream cheese, cream, and butter, are not part of the Dairy Group.

Look through each of the food groups below. Check off your favorite foods and add more choices in each group.

| FRUIT | VEGETABLES | PROTEIN | GRAINS | DAIRY |
|---------------------------------------|--|--|---|--|
| <input type="checkbox"/> berries | <input type="checkbox"/> carrots | <input type="checkbox"/> beef | <input type="checkbox"/> whole grain bread | <input type="checkbox"/> milk |
| <input type="checkbox"/> apples | <input type="checkbox"/> tomatoes | <input type="checkbox"/> pork | <input type="checkbox"/> english muffins | <input type="checkbox"/> yogurt |
| <input type="checkbox"/> oranges | <input type="checkbox"/> cucumbers | <input type="checkbox"/> chicken | <input type="checkbox"/> brown rice | <input type="checkbox"/> cheese |
| <input type="checkbox"/> nectarines | <input type="checkbox"/> snap peas | <input type="checkbox"/> turkey | <input type="checkbox"/> beans | <input type="checkbox"/> kefir |
| <input type="checkbox"/> melon | <input type="checkbox"/> baby bell peppers | <input type="checkbox"/> fish | <input type="checkbox"/> whole grain cereal | <input type="checkbox"/> flavored milk |
| <input type="checkbox"/> small banana | <input type="checkbox"/> broccoli | <input type="checkbox"/> eggs | <input type="checkbox"/> oatmeal | <input type="checkbox"/> cottage cheese |
| <input type="checkbox"/> mango | <input type="checkbox"/> asparagus | <input type="checkbox"/> peanut butter | <input type="checkbox"/> tortillas | <input type="checkbox"/> frozen yogurt |
| <input type="checkbox"/> grapefruit | <input type="checkbox"/> zucchini | <input type="checkbox"/> beans | <input type="checkbox"/> whole grain pasta | <input type="checkbox"/> lactose-free milk |
| <input type="checkbox"/> grapes | <input type="checkbox"/> salad greens | <input type="checkbox"/> nuts | <input type="checkbox"/> whole grain | <input type="checkbox"/> soy milk, fortified |
| <input type="checkbox"/> peaches | <input type="checkbox"/> cabbage | <input type="checkbox"/> soy | <input type="checkbox"/> crackers | <input type="checkbox"/> and unsweetened |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |

BUILDING BLOCK: PROTEIN

WHAT IS PROTEIN

Proteins are naturally occurring substances found in animal products and some plant products. Proteins are in every living cell in the body. Our bodies need proteins from the foods we eat to build and maintain bones, muscles, and skin, and for our cells to function.

You need to eat proteins every day, because your body doesn't store them the way it stores fats and carbohydrates. Proteins are found in dairy, meats, fish, eggs, beans, and nuts.

WHAT DOES PROTEIN DO

Protein provides our body with amino acids. Amino acids are needed for growth. Amino acids also maintain and replace body tissue such as muscles, bones, blood, and body organs.

There are over 20 amino acids, which join together in different ways to make thousands of different proteins. Eleven of these amino acids are made by our bodies and are called 'non-essential' amino acids. The other nine are called 'essential' amino acids because you have to get them by eating the right foods.

WHAT FOODS ARE A GOOD SOURCE OF PROTEIN

The best sources of proteins are lean meats, poultry, fish, eggs, low fat dairy products, nuts, seeds, and legumes like black beans and lentils. Foods that provide all the essential amino acids are called complete proteins. Proteins from animal foods have all the essential amino acids you need. Plant foods have some essential amino acids so they are called incomplete proteins. Incomplete protein sources include nuts, grains, fruits, and vegetables. Therefore it is important for vegetarians to choose meals wisely in order to get all essential amino acids in their daily diet.

BEEF HAS ZIP

Zinc, iron and protein, that is! These body-building nutrients are in some of your favorite foods, like burgers and steak.

ZINC helps power your brain. It helps you think so you can remember important facts and pay attention in school. It may even help you get an A on your math test! Zinc also helps your body heal when you have an infection and helps you fight off illness, like a cold.

IRON helps carry oxygen in your blood. Your brain and your body need oxygen to help you do your best. So whatever your thing is - sports, music, writing - you'll do it better. Beef is one of your best sources of iron.

PROTEIN can supply energy for your body and keeps you strong. That's because it helps build and repair all parts of your body. Protein helps give you the power to perform, so go ahead and throw a ball or hit a high note!



Beef Man says, "You need ZIP!"



BUILDING BLOCK: VITAMINS & MINERALS

Vitamins and minerals are the workers found in foods we eat. Your body needs them to get its jobs done and so that you can grow the way you should. When it comes to vitamins and minerals, each one has its own special job in our bodies.

VITAMIN A is important for vision, bone growth, reproduction, and regulating the immune system. Good sources include sweet potatoes, pumpkin, carrots, spinach, turnip greens, mustard greens, kale, collard greens, winter squash, cantaloupe, red peppers, and Chinese cabbage.

B VITAMINS There are eight B vitamins and they are essential for cell metabolism, supporting the immune and nervous system, and skin and muscle tone. Good sources include fortified cereals, meat, dairy products, fruits, and vegetables.

VITAMIN C is needed for a strong immune system and it promotes healthy gums, teeth, bones, and cartilage. Good sources include red and green peppers, kiwi, strawberries, sweet potatoes, kale, cantaloupe, broccoli, pineapple, Brussels sprouts, oranges, mangoes, tomato juice, and cauliflower.

VITAMIN D is necessary for calcium absorption and because of this it is essential for bone growth and bone health. It is also involved in the immune system. It reduces inflammation and helps prevent heart disease. The majority of Americans are deficient in this vitamin due to insufficient sun exposure and the decline in milk consumption. Good sources include fatty fish such as salmon, tuna, mackerel, fish liver oils, and fortified dairy and juice products.

VITAMIN E is the most important antioxidant in the fatty part of our cells. It is important in protecting our bodies from arthritis, heart disease, diabetes, and infection. Vitamin E is made by plants only. Good sources include wheat germ oil, salad oils, sunflower seeds, almonds, chard, mustard greens, and turnip greens.

VITAMIN K is needed for blood clotting. Good sources include green leafy vegetables, especially broccoli, cabbage, turnip greens, and legumes.

MAGNESIUM is essential for strong bones, and proper muscle and nerve cell function. It is involved in so many things that it affects every system in our body. Good sources include green leafy vegetables like Swiss chard and spinach, broccoli, summer squash and sunflower and sesame seeds.

CALCIUM is essential to build and maintain strong bones throughout life and is needed for muscles to work properly. Good sources include dairy products, fortified juices and soy products, green leafy vegetables, and seaweed.

POTASSIUM is important for muscles and nerves to work properly and for regulating blood pressure. It also plays a role in preventing diabetes and heart disease. Good sources include many fruits and vegetables, such as spinach, mushrooms, fennel, kale, broccoli, winter squash, molasses, eggplant, potatoes, sweet potatoes, bananas, oranges, and cantaloupe.

BUILDING BLOCK: CARBOHYDRATES

There are two types of carbohydrates:

- Sugars are simple carbohydrates because your body digests them quickly and easily.
- Starches are complex carbohydrates because it takes your body longer to digest them.



WHAT DO CARBOHYDRATES DO

Carbohydrates give energy to all the cells in your body. They provide your body glucose. Glucose gives you quick energy. Your body's cells can't use it all at once. Extra glucose that your body's cells can't use is saved in your liver and muscles as glycogen.

Some simple carbohydrates come from foods like soft drinks and candy. These foods have lots of sugar but don't have important vitamins and minerals which your body needs. Some simple carbohydrates come from foods such as apples, bananas, grapes, raisins, as well as low-fat ice cream and frozen yogurt. These foods do provide you with some vitamins and minerals.

Complex carbohydrates, also called starches, come from food like bread, cereals, pasta and vegetables like corn, potatoes and carrots. They give you energy more slowly so it lasts longer and they have a variety of vitamins and minerals, which your body needs.

BUILDING BLOCK: FATS



Fat is the major source of stored energy for the body. Some foods, including most fruits and vegetables, have almost no fat. Other foods have plenty of fat. They include nuts, oils, butter, and meats. You need fat in your diet so your brain and nervous system develop correctly. Dietary fat helps your body grow and develop. Fats fuel the body and help absorb some vitamins. Fats also are the building blocks for hormones and they insulate the nervous system.

There are three types of fat that we eat.

Saturated fatty acids - from animal foods, dairy foods and some oils that come from plants.

Unsaturated fatty acids - from plants, fish and most plant oils.

Mono unsaturated fatty acids - from some plant products such as olive oil and canola oil.

WHAT DOES FAT DO

- acts as the body's reserve tank of energy
- protects our organs - like a cushion
- helps our bodies stay warm in cold weather
- helps hormones keep blood pressure steady
- helps keep skin and hair healthy
- gives some vitamins a place to stay and helps them get around in the blood to where the body wants them

You should get most of your fat from lean meats, fish, and heart healthy oils. Some fat is important for good nutrition, but too much can cause health problems.

BUILDING BLOCK: FIBER

Fiber is the part of the plant that your body does not absorb; therefore, it contains no calories. Its role is to clean out the intestines so that toxins and left-over food particles do not stay too long in the intestine, where they can cause damage. Grains, nuts, fruits, and vegetables are good sources of fiber.



BUILDING BLOCK: WATER

In addition to food, everyone needs water every day. Your body does not store water, it needs to be replaced every day. Your body uses water to:

- carry nutrients to your brain, muscles, bones, organs
- regulate your body's temperature, for example, sweating cools you off
- cushion and lubricates your brain, organs, bones and joints
- aids in the digestion of food
- keeps skin clear and healthy
- removes waste products from the body
- helps remove fat from the body
- carries food and oxygen to all parts of the body

Thirst is usually a good guide for water intake except during certain times: when you are ill or exercising heavily you might not feel thirsty, but you still need to drink plenty of water.



WHAT ABOUT CALORIES

A calorie is a unit of energy. When you hear something contains 100 calories, it is a way of describing how much energy your body could get from eating or drinking it.

Calories aren't bad for you. Your body needs calories for energy. But eating too many calories — and not burning enough of them off through activity — can lead to weight gain.

Most foods and drinks contain calories. Some foods, such as lettuce, contain few calories (10 calories/ cup). Other foods, like peanuts, contain a lot of calories (427 calories/ ½ cup). One three-ounce serving of lean beef is about the size of a deck of cards and contains 175 calories. You can find out how many calories are in a food by looking at the nutrition facts label.

Of the six nutrition building blocks, proteins, carbohydrates, and fats contain energy in the form of calories. Here's how many calories are in one gram of each:

- 1 gram of protein = 4 calories
- 1 gram of carbohydrate = 4 calories
- 1 gram of fat = 9 calories

Now, using the numbers above, calculate how many calories from protein, carbohydrates, and fat are in one 3-ounce serving of lean beef.

One 3-ounce serving of lean beef contains:

22 grams of protein = _____ calories

0 grams of carbohydrates = _____ calories

10 grams of fat = _____ calories

ADDING UP THE BUILDING BLOCKS

All foods are made up of basic nutrients. In the previous pages, we have learned about the six building blocks of nutrition. Each building block fulfills a different need in your body. Some foods have more of one type of nutrient and less of others. That's why it is important to eat a variety of foods every day. That way you are able to get some of each building block or nutrient every day.

Take a look at the ingredients of a hamburger listed below. Let's calculate the amount of the nutrient building blocks your body gets from eating the hamburger.

| Food Item | Fat | Carbohydrate | Protein | *Reference # |
|------------------|------|--------------|---------|--------------|
| Bun | 2 g | 26 g | 5 g | 339564 |
| Hamburger | 15 g | 0 g | 21 g | 171797 |
| Cheese, American | 5 g | 2 g | 4 g | 336767 |
| Ketchup | 0 g | 4 g | 0 g | 342526 |
| Mustard | 0 g | 0 g | 0 g | 326698 |
| Pickle slice | 0 g | 0 g | 0 g | 324653 |
| Lettuce | 0 g | 0 g | 0 g | 169248 |
| Onion | 0 g | 1 g | 0 g | 170000 |



Using the chart above, list the food items you would put on your hamburger in the first column, and then put in the amount of nutrients for each item. Add up the total at the bottom. Compare your total with your classmates. Who's hamburger has more nutrients? What food items could you add to your hamburger to make it more nutritious?

| Food items you would put on your hamburger | Amount of fat in grams | Amount of carbohydrates in grams | Amount of protein in grams | Calculate the total amount of calories from the fat, carbohydrates, and protein |
|--|------------------------|----------------------------------|----------------------------|---|
| | | | | |
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| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Total amount | | | | |

BEEF TRIVIA QUESTIONS

- In America, on which single day of the year is the most beef consumed?
 - Memorial Day
 - 4th of July
 - Thanksgiving
 - Christmas
- How many quarter-pound hamburgers come from the ground beef in one 1,000 pound beef animal?
 - 500 quarter-pound burgers
 - 750 quarter-pound burgers
 - 1,000 quarter-pound burgers
 - 1,500 quarter-pound burgers
- How many basketballs can be made from 1 cowhide?
 - 4 basketballs
 - 12 basketballs
 - 15 basketballs
 - 20 basketballs

*Reference # from FoodData Central <https://fdc.nal.usda.gov/fdc-app.html#/food-details/336767/nutrients>

ROCK AND ROLL BEEF WRAPS



INGREDIENTS:

1 pound Ground Beef
(93% lean or leaner)
1 cup water
1/3 cup uncooked quinoa
2 tablespoons dry ranch dressing mix
1/4 teaspoon black pepper
2 cups packaged broccoli
or coleslaw mix
4 medium whole grain or spinach
tortillas (7 to 8-inch diameter)

Toppings (optional):

Apple slices, red bell pepper strips,
cucumber slices, carrot slices, sliced
almonds, chow mein noodles

*Recipe, photo, and nutrition information
courtesy of BeefItsWhatsForDinner.com*

COOKING:

Heat large nonstick skillet over medium heat until hot. Add ground beef; cook 8 to 10 minutes, breaking into 1/2-inch crumbles and stirring occasionally. Pour off drippings, as necessary.

Cook's Tip: Cooking times are for fresh or thoroughly thawed ground beef. Ground beef should be cooked to an internal temperature of 160°F. Color is not a reliable indicator of ground beef doneness.

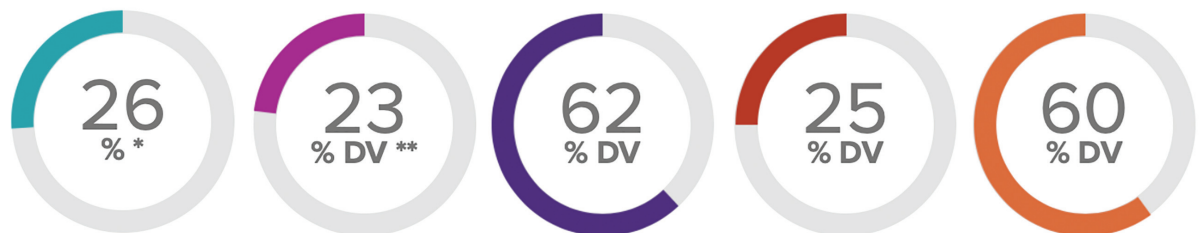
Stir in water, quinoa, ranch dressing mix and black pepper; bring to a boil. Reduce heat; cover and simmer 10 to 15 minutes or until quinoa is tender. Stir in slaw; cook, uncovered, 3 to 5 minutes or until slaw is crisp-tender, stirring occasionally.

Divide beef mixture evenly among tortillas; garnish with toppings, as desired. Fold over sides of tortillas and rolling up to enclose filling.

Cook's Tip: Romaine or iceberg lettuce leaves can be substituted for tortillas.

NUTRITION: Using 93% lean ground beef

509 CALORIES 4.4g SAT FAT 31g PROTEIN 4.6 mg IRON 6.8 mg ZINC



* Based on a 2,000 calorie diet ** Percent Daily Values (% DV) are based on a 2,000-calorie diet

Nutrition information per serving using 93% lean ground beef: 509 Calories; 106.2 Calories from fat; 11.8g Total Fat (4.4 g Saturated Fat; 0.2 g Trans Fat; 2.3 g Polyunsaturated Fat; 4 g Monounsaturated Fat); 84 mg Cholesterol; 1130 mg Sodium; 33 g Total Carbohydrate; 1.4 g Dietary Fiber; 2.1 g Total Sugars; 31 g Protein; 0 g Added Sugars; 170.9 mg Calcium; 4.6 mg Iron; 516 mg Potassium; 0 mcg Vitamin D; 0.2 mg Riboflavin; 6.4 mg NE Niacin; 0.5 mg Vitamin B6; 2.8 mcg Vitamin B12; 279 mg Phosphorus; 6.8 mg Zinc; 22 mcg Selenium; 102.9 mg Choline.

This recipe is an excellent source of Protein, Iron, Niacin, Vitamin B6, Vitamin B12, Phosphorus, Zinc, and Selenium; and a good source of Calcium, Potassium, Riboflavin, and Choline.



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Funding for this Colorado Reader was provided by:

