

This booklet is all about beef from the time you purchase it in the store until you serve it. The information is designed to help you make the best beef buy and to show you how to prepare beef to enhance its tenderness and flavor.

But why should you choose beef in the first place? The most important reason is the basic reason we eat: to obtain the nutrients in food needed by the body.



NUTRITION

About 50 nutrients are needed daily for body growth, maintenance and repair. No one food contains all nutrients in the required amounts. For this reason, we need to consume a wide variety of foods from several different food categories every day. One type of food can't do the job alone, and extra amounts of one nutrient can't make up for too little of another. To help you choose the right variety and amounts, food guides have been developed. The four food groups (meats, milk, fruits/vegetables and grains) is one such guide.

Beef is an important member of food guides because it provides significant amounts of several important nutrients.

U.S. RDA* For The Key Nutrients in Beef

Protein	45 grams
Riboflavin (Vitamin B ₂)	1.7 milligrams
Niacin	20 milligrams
B ₁₂	6 micrograms
Iron	18 milligrams
Zinc	15 milligrams

*U.S. Recommended Daily Allowances (the daily amount of each nutrient recommended for most people)

A gram is about 1/30th of an ounce and weighs about the same as a paper clip. A milligram is one-thousandth of a gram. A microgram is one-millionth of a gram.

PROTEIN

Beef supplies complete, high quality protein. Proteins are made up of amino acids. We need 22 amino acids, but only eight are essential, meaning they must come from food. The body makes the remaining nonessential amino acids.

Proteins which contain all of the eight essential amino acids in proportions

most useful to the body are called complete or high quality proteins. Plant proteins, when eaten singly, do not contain all of the essential amino acids in sufficient quantity and therefore are incomplete. Complete proteins such as those in beef help to build, maintain and repair body tissues, form body hormones and enzymes and increase resistance to infection and disease.

One 3-oz. (85 g) cooked serving of ground beef will supply 21.8 grams of protein

or:

50% of the amount recommended for most people.

B-VITAMINS

Beef contains significant amounts of several B-vitamins.

Riboflavin (vitamin B₂) helps the body use energy and promotes healthy skin and good vision in bright light.

Niacin (another B-vitamin) promotes healthy skin and nerves, aids digestion and fosters normal appetite.

Vitamin B₁₂ is needed for normal functioning of body cells and of the nervous system.

One 3-oz. (85 g) cooked serving of ground beef will supply .15 milligrams of riboflavin, 4.8 milligrams of niacin and 1.1 micrograms of vitamin B₁₂

or:

10% of the amount of riboflavin (vit. B₂), 25% of the amount of niacin and 20% of the amount of vitamin B₁₂ recommended for most people.

IRON

One of beef's most important nutrients is iron. Iron helps red blood cells carry oxygen to and away from the other body cells. The iron in meat, called heme (hēm') iron, is easily utilized by the body. It also helps the body use the non-heme iron present in other foods such as legumes and grain products.

One 3-oz. (85 g) cooked serving of ground beef will supply 2.6 milligrams of iron

or:

15% of the amount recommended for most people.

ZINC

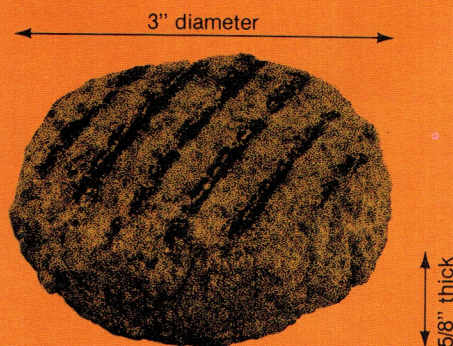
Zinc is a mineral the body needs to form enzymes and insulin.

One 3-oz. (85 g) serving of ground beef will supply 3.74 milligrams of zinc

or:

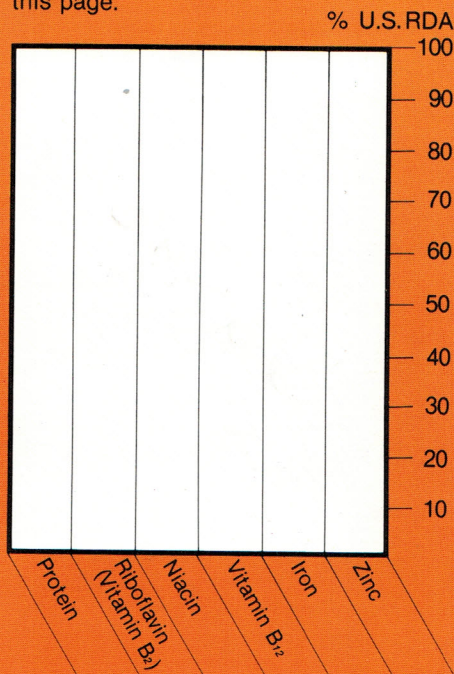
25% of the amount recommended for most people.

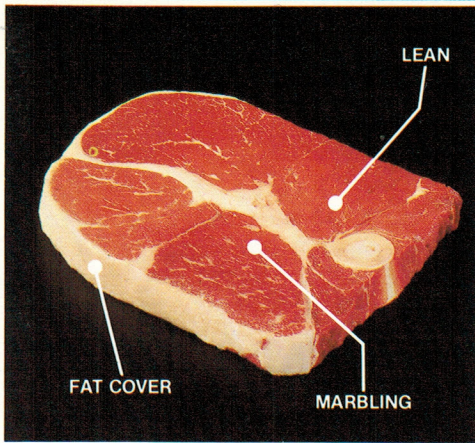
A serving of cooked beef is about 3 oz. (85 g). It will supply approximately 225 calories. A 3-oz. cooked ground beef patty (usually 4 ounces uncooked) is approximately 3 inches in diameter and 5/8" thick. (The diagram below is smaller than a real 3-oz. cooked patty.)



FILL IN THE CHART

When you eat a cooked, 3-oz. (85 g) ground beef patty, what percent of the recommended amounts of beef's key nutrients do you get from it? Fill in the bar-chart below using information from this page.





STORAGE

A fourth factor in buying beef is the available storage space in your refrigerator or freezer. (Always plan to make beef the last purchase before returning home.)

REFRIGERATING

Most fresh beef is prepackaged and should be stored wrapped, as purchased. Fresh beef which is not prepackaged should be unwrapped and loosely rewrapped in plastic or foil before it's placed in the refrigerator. It can be stored for two to four days after you purchase it. Store at refrigerator temperatures (between 36° and 40° F. or 2° and 4° C). The special meat compartment in some refrigerators is designed to maintain ideal temperature.

FREEZING

(1) Freeze beef as soon as possible after purchase while fresh and in top condition.

(2) Select proper freezer wrapping materials such as:

- specially coated freezer paper
- aluminum foil
- heavy-duty transparent polyethylene
- heavy-duty plastic bags

The wrap must seal out air and lock in moisture. If air penetrates the package, moisture is drawn from the surface of the meat causing a harmless condition known as "freezer burn" which affects the palatability of beef when cooked. Plastic sandwich bags

and waxed paper are unsuitable wrapping materials for freezing.

Prepackaged meat such as you buy at self-service meat counters can be frozen without rewrapping and stored in the freezer one to two weeks. For longer freezer storage the original package should be rewrapped or overwrapped with special freezer wrap.

(3) Prepare beef for freezing before wrapping. To conserve freezer space trim excess fat and remove bones when practical. Shape ground beef into patties; bone and cut into pieces those cuts of meat you plan to use for stew or similar dishes. Do not season as this shortens freezer life. Freeze beef cubes, patties, meatballs and meat loaves unwrapped on a tray so they won't stick together. Wrap for storage after they're frozen.

(4) Wrap tightly, pressing out as much air as possible. (See illustrations showing how to wrap.)

(5) Label properly. Indicate name of cut, approximate number of servings and/or weight and date of freezing.

(6) Freeze at once at 0° F. (-18° C) or lower. Do not stack unfrozen packages or freeze too many packages at one time. This slows down the freezing, which may lower quality.

Maintain freezer temperature at 0° F. (-18° C) or lower. Use a thermometer to check temperature.

(7) Use chart below to determine maximum storage times.

APPEARANCE

How beef looks at the meat counter is a third important factor in buying beef. Look at color of the lean, the amount of marbling and the fat cover.

LEAN

The color of the lean part of the beef should be bright to deep red, unless it is cured, aged or cured-and-smoked. (A cured meat is preserved by drying or other processes, often through the use of salt or a salt solution.)

When first cut, beef is dark, purplish-red. After exposure to the air, the cut surface becomes bright red due to a reaction with oxygen in the air. This is why the outside layer of ground beef is often red while the middle is darker. The middle will also redden as it is exposed to the air.

MARBLING

The small flecks of fat throughout the lean are called marbling. Marbling improves the meat's flavor, tenderness and juiciness. Excessive marbling yields extra calories.

FAT COVER

The fat which covers the exterior of most beef cuts is called fat cover. It keeps beef from drying out before cooking and helps in retaining juices during cooking.

This fat covering acts as a self baster on roasts. Look for a fat covering of 1/2" on steaks and roasts.

STORAGE TIME CHART

Maximum Storage Time Recommendations for Fresh, Processed and Cooked Beef

Product	Refrigerator (at 36° to 40° F. or 2° to 4° C)	Freezer (at 0° F. or -18° C)
Fresh Beef		
Roasts, steaks	2 to 4 days	6 to 12 months
Beef for stew	2 days	6 to 8 months
Ground beef	1 to 2 days	3 to 4 months
Beef variety meats	1 to 2 days	3 to 4 months
Fresh Veal		
Roasts, chops, cutlets	2 to 4 days	6 to 9 months
Ground veal	1 to 2 days	3 to 4 months
Cured and/or Smoked and Ready-to-Serve Beef Products		
Corned beef	1 week	2 weeks
Frankfurters	4 to 5 days	1 month
Luncheon meat	1 week	Not recommended
Sausage		
Smoked	3 to 7 days	
Dry and semi-dry (unsliced)	2 to 3 weeks	
Cooked Beef Products	4 to 5 days	2 to 3 months

Freezing Cooked Beef:

Many cooks find it convenient to prepare two batches of a recipe and freeze one for later use or to prepare a meal ahead of time and freeze it.

- (1) Prepare for immediate serving, but slightly underdone, to allow it to finish cooking when reheated.
- (2) Cool in the refrigerator for approximately two hours.
- (3) Package when cool following steps 4-7 on page 4.

Freezing Cured, Smoked or Ready-to-Serve Beef Products:

These products do not keep their high quality long in the freezer because seasonings in the products speed the development of rancidity and cause texture changes during frozen storage. For best quality, limit frozen storage of corned beef and bologna to two weeks and frankfurters to one month.

Freezing Defrosted Beef:

Refreezing of completely defrosted beef is not usually recommended except in emergencies because the quality of the beef may deteriorate between the time of thawing and refreezing. Partially defrosted beef may be refrozen.

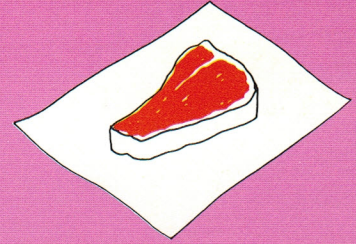
DEFROSTING

Frozen beef may be defrosted before or during cooking. Defrost beef in the original wrapping in the refrigerator or in an appropriate container in a microwave oven. Defrosting meat at room temperature is not recommended. The length of time for defrosting meat in the refrigerator at 36° to 40° F. (2° to 4° C) is:

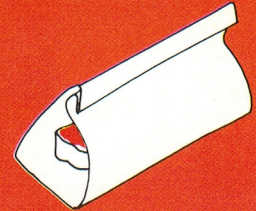
- Large Roast 4-7 hours (per pound)
- Small Roast 3-5 hours (per pound)
- 1-inch Steak 12-14 hours (total)

HOW TO WRAP BEEF FOR FREEZING

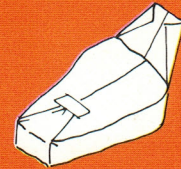
Place beef in center of wrapping material. When several steaks, patties or individual pieces of beef are packaged together, place a double thickness of freezer wrap between them for easier separation.



Bring edges of wrap together over beef. Fold over twice and press the wrap closely to the beef to force out air.



Smooth ends of wrap, creasing edges to form triangles. Double fold ends toward package to seal out air.



Seal ends with strips of freezer tape. Label tape with name of cut, number of servings and date of freezing.



UNSCRAMBLE THE STATEMENTS

Unscramble these to make each a factual statement about beef storage.

YASAWL APNL OT EMKA EBFE HET TLSA RHESAUPC FREBEO GERTRUNIN MEHO.

1 _____

SEFHR TAME ANC EB DOREST NI ETH GRAFTERIERRO ORMF OTW OT ROUF SADY.

2 _____

ZERGEFIN APWR UTSM LEAS OTU RAI DAN COKL NI TREMSUOI.

3 _____

TEIDSROGNF TEMA TA ORMO PATTERNREEU TNO CODEDMERNEM.

4 _____

