



PhotoDisc

# Veal from Farm to Table

*Veal is often associated with international cuisines such as Italian, French, German, Swiss, Hungarian, and Czech. Home cooks enjoy preparing veal for special occasions or for casual dinners such as barbecues. Veal is USDA or state inspected. Here are some facts about veal.*

## What is Veal?

**Veal** is the meat from a calf or young beef animal. A veal calf is raised until about 16 to 18 weeks of age, weighing up to 450 pounds. Male dairy calves are used in the veal industry. Dairy cows must give birth to continue producing milk, but male dairy calves are of little or no value to the dairy farmer. A small percentage are raised to maturity and used for breeding.

**Calf:** A calf is a young bovine of either sex that has not reached puberty (up to about 9 months of age), and has a maximum live weight of 750 pounds.

**“Bob” Veal:** About fifteen percent of veal calves are marketed up to 3 weeks of age or at a weight of 150 pounds. These are called Bob Calves.

**“Special-Fed” Veal:** Special, milk-fed and formula fed veal calves usually are fed nutritionally balanced milk or soy based diets. These specially controlled diets contain iron and 40 other essential nutrients, including amino acids, carbohydrates, fats, minerals and vitamins. The majority of veal calves are “special-fed.”

## How are Veal Calves Housed?

Today’s modern, environmentally controlled veal barns provide for animal health and safety. The barns are lighted artificially and by natural light, and a constant source of fresh air is circulated.

Individual stalls are used for each calf. These stalls provide a safe environment where the calves can stand, stretch, groom themselves and lay down in a natural position. These pens are invaluable to the health of the animal. They allow the calves to be individually looked after. The stall’s slotted floors allow for efficient removal of waste.

## How are Veal Calves Raised?

Veal calves are observed individually and are provided with specialized care. They also receive a milk replacer diet that provides all of the 40 vitamins and minerals they require.

Veal calves are usually separated from the cows within 3 days after birth, allowing for control of diseases and monitoring the dairy cow for udder problems.

Individual stalls allow veal farmers and veterinarians to closely monitor the health of each calf and properly treat a calf with a specific, government approved antibiotic. Veal farmers monitor each calf for health deficiencies

such as anemia. The feed is controlled to meet the calves' iron needs. Health products for use with veal calves are approved by the Food and Drug Administration within the Department of Health and Human Services before being put on the market. The FDA also regulates information on the labeling of the product, the doses permitted, and withdrawal period.

## How is Veal Inspected?

All veal in retail stores is either USDA inspected for wholesomeness or inspected by State systems which have standards equal to the Federal government. Each calf and its internal organs are inspected for signs of disease. These inspections insure the veal is safe, wholesome, and correctly labeled and packaged.

## Is Veal Graded?

Veal and calf carcasses are graded on a composite evaluation of two general grade factors: conformation (proportion of lean, fat, and bone in carcass); and quality of the lean. In addition, the color of the lean carcasses is key in differentiating between veal, calf and beef carcasses.

There are five grades for veal: prime, choice, good, standard, utility.

*Grading is voluntary;* a plant pays to have its meat graded.

When veal is graded, a shield-shaped purple mark is stamped on the carcass. With today's close trimming at the retail level, however, you may not see the USDA grade shield on the meat cuts at the store. Instead, retailers put stickers with the USDA grade shield on individual packages of meat. In addition, grade shields and inspection legends may appear on bags containing larger wholesale cuts.

## Are Hormones and Antibiotics Used In Veal Raising?

Antibiotics may be given to prevent or treat disease in the veal calf. Penicillin is not used in calf raising; tetracycline has been approved but is not widely used.

No hormones are used in veal raising. While growth-promoting hormones are approved for use in ruminating cattle, they have never been approved for use in non-ruminating veal calves.

## Is Clenbuterol Used in the Raising of Veal Calves in the United States?

The use of Clenbuterol to raise veal calves is illegal in the United States. Clenbuterol is not a hormone, but a growth-promoting drug in the beta-agonist class of compounds.

Clenbuterol residues can affect lung and heart function in persons who have eaten liver or meat of animals given the drug. USDA considers any residue of Clenbuterol in meat unacceptable because of this. At the present time there have been no reported cases of illness related to Clenbuterol in the United States.

## Retail Cuts of Fresh Veal

There are seven basic major cuts into which veal is separated: leg (round), sirloin, loin, rib, shoulder, foreshank and breast. When examining a package of veal, the label can help the purchaser identify the cut of meat in the package.

For example, a label stating "veal rib chop" identifies the packaged meat as "veal," the primal or large wholesale cut from the "rib," and the name of the retail cut, "chop." This information helps consumers know what type of preparation method to use. The most readily available cuts of veal today include rib chops, loin chops, cutlets, veal for stew, arm steak, blade steak, rib roast, breast, shanks, and round steak.

## How Much Veal is Consumed?

In 2004, Americans consumed about .41 lbs. of veal per person yearly, according to USDA's Economic Research Service (ERS). Veal consumption reached an all-time high of 8.6 lbs. per person in 1944. The last year consumption topped one pound per person was in 1988.

### What Does “Natural” Mean?

*All fresh meat qualifies as “natural.”* Products labeled “natural” cannot contain any artificial flavor or flavoring, coloring ingredient, chemical preservative or any other artificial or synthetic ingredient; and the product and its ingredients are not more than minimally processed (ground, for example). All products claiming to be natural should be accompanied by a brief statement which explains what is meant by the term “natural”.

### Color of Veal

*Veal is classified as a “red” meat,* but typical lean meat on a veal carcass has a grayish pink color. Typical calf carcasses have a grayish red color of lean meat.

### Dating of Veal Products

Dating of veal is **not required** by federal regulations. However, many stores and processors may **voluntarily** date packages of raw veal or processed veal products. If a date is shown, there must be a phrase explaining the meaning of the date.

If a manufacturer has determined a “use by” date, observe it. This is a quality assurance date after which peak quality begins to lessen but the product may still be used. It is always best to buy a product before its date expires.

### What Foodborne Organisms are Associated with Veal?

*Escherichia coli* can colonize in the intestines of animals, which could contaminate muscle meat at slaughter. *E. coli* O157:H7 is a rare strain that produces large quantities of a potent toxin that forms in and causes severe damage to the lining of the intestine. The disease produced by it is called Hemorrhagic Colitis and is characterized by bloody diarrhea. *E. coli* O157:H7 is easily destroyed by thorough cooking.

*Salmonella* is a bacteria that can cause diarrheal illness in humans and may be found in the intestinal tracts of livestock, poultry, dogs, cats and other warm-blooded animals. There are about 2,000 *Salmonella* species. Freezing doesn't kill this microorganism but it is destroyed by thorough cooking. *Salmonella* must be eaten to cause illness. They cannot enter the body through a skin cut.

### How to Handle and Store Veal Safely

Fresh veal is kept cold during distribution to retail stores. When shopping, put packages of veal in disposable plastic bags, to contain leakage which could cross contaminate cooked foods or produce that will be eaten raw such as salad. Take veal home immediately and refrigerate at 40 °F or below.

Use veal chops and roasts within 3 to 5 days, and ground veal or stew meat within 1 to 2 days.

You may freeze veal at 0 °F or below. If kept frozen, veal will be safe indefinitely, although the quality can be affected with extended freezing. For best quality use frozen veal chops and frozen roasts within 4 to 6 months and ground veal or stew meat within 3 to 4 months.

*It is not important if a date expires after freezing veal because all foods stay safe while properly frozen.*

### Rinsing Veal

There is no need to wash raw veal before cooking. Any bacteria that might be present on the surface would be destroyed by cooking. Wet meat won't brown well.

## Safe Thawing

There are three safe methods to thaw veal: in the refrigerator; in cold water; and in the microwave. When thawing in the refrigerator, estimate 4 to 7 hours per pound for a large roast, 3 to 5 hours per pound for a small roast, and about 12 hours for 1-inch thick rib or shoulder chops. Ground veal defrosting time depends on the thickness of the package.

To defrost veal in cold water, do not remove packaging. Be sure the package is airtight or put it into a leakproof bag. Submerge the veal in cold water, changing the water every 30 minutes so it continues to thaw. Small packages of veal may defrost in an hour or less: a 3 to 4 pound roast may take 2 to 3 hours. When thawing in cold water or in the microwave immediately cook the veal. Never thaw on the counter or any other locations at room temperature.

Raw ground veal and stew meat should be used in 1 or 2 days. Other cuts of veal should be safe in the refrigerator for 3 to 5 days before cooking.

*Foods defrosted in the microwave or by the cold water method should be cooked before refreezing because they may have been held at temperatures above 40 °F, where bacteria multiply rapidly.*

It is safe to cook frozen veal in the oven or on the stove or grill without defrosting. Estimate one-third to one-half more cooking time depending upon the size of the meat. Broil frozen veal farther away from the heat source; preheat the skillet when pan-frying or pan-broiling. Do not cook frozen veal in a slow cooker.

## Marinating

Marinate veal in the refrigerator up to 5 days for chops, roasts or steaks. Veal cubes or stew meat can be marinated up to 1 to 2 days. Boil used marinade before brushing on cooked veal. Discard any uncooked leftover marinade.

## Irradiation

Irradiation has not been approved for use on veal products.

## Partial Cooking

Never brown or partially cook veal to refrigerate and finish cooking later because bacteria may still be present and not have been destroyed. It is safe to partially cook or microwave veal immediately before transferring to the hot grill to finish cooking.

## Safe Cooking

For safety, USDA recommends cooking ground veal to a safe minimum internal temperature of 160 °F. However, whole muscle meats such as veal steaks, roasts, and chops may be cooked to 145 °F (medium rare), 160 °F (medium), or 170 °F (well done).

There are two basic methods of veal cookery: dry or moist heat. Tender cuts including leg, cutlets, veal patties, and rib or loin chops can be prepared by dry heating methods such as roasting, broiling, pan broiling, grilling or stir frying. Moist heat methods such as braising or simmering in liquid can also be used with these cuts.

Less tender cuts, such as cross cut shanks, stew meat, round steak and breast of veal, generally require moist heat cooking methods. By marinating and pounding less tender cuts to break down connective tissue, dry heating methods can be used. Refer to the following chart for approximate cooking times.

### Approximate Veal Cooking Times

TYPE OF VEAL	SIZE	COOKING METHOD	COOKING TIME	INTERNAL TEMPERATURE
Rib Roast	4 to 5 lbs.	Roast 325 °F	25 to 27 min/lb 29 to 31 min/lb	Medium 160 °F Well done 170 °F
Loin	3 to 4 lbs.	Roast 325 °F	34 to 36 min/lb 38 to 40 min/lb	Medium 160 °F Well done 170 °F
Loin/Rib Chops	1" thick or 8 oz.	Broil/Grill	7 min per side 8 to 9 min per side	Medium 160 °F Well done 170 °F
Cutlets	1/8" thick 1/4" thick	*Pan fry	3 to 4 min 5 to 6 min	Medium 160 °F
Arm/Blade Steak	3/4" thick 16 oz.	Broil/Grill	7 min per side 8 min per side	Medium 160 °F Well Done 170 °F
Round Steak	1/4" thick 1/2" thick	**Braise	30 minutes 45 minutes	160 °F
Boneless Breast, stuffed	2 to 2.5 lbs 4 to 4.5 lbs	**Braise	1 1/4 to 1 1/2 hrs 2 to 2 1/2 hrs	160 °F
Cross Cut Shanks	1 1/2" thick	Cover with liquid; simmer	1 to 1 1/4 hrs	160 °F
Stew Meat	1 to 1 1/2" cubes/pieces	Cover with liquid; simmer	45 to 60 min	160 °F
Ground Patties	1/2" thick, 4 oz.	Broil/Grill/Pan fry	6 to 7 min per side	160 °F

\* Pan Frying, which is often called "sautéing," is a quick cooking method. Meat is placed in small amount of heated oil and cooked on medium-high heat.

\*\* Braising is roasting or simmering less tender meats with a small amount of liquid in a tightly covered pan.

### Microwave Directions:

- When microwaving unequal size pieces of veal, arrange in dish or on rack so thick parts are toward the outside of dish and thin parts are in the center, and cook on medium-high or medium power.
- Place a roast in an oven cooking bag or in a covered pot.
- Refer to the manufacturer's directions that accompany the microwave oven for suggested cooking times.
- Use a food thermometer to test for doneness in several places to be sure temperatures listed above have been reached.

### Leftovers

Refrigerate (at 40 °F or below) any leftovers promptly in shallow containers. Discard any food left out more than 2 hours (1 hour if temperatures are above 90 °F). Eat within 3 to 4 days, either cold or reheated to 165 °F (hot and steaming). It is safe to freeze ready-prepared veal dishes. For best quality, use within 4 months.

## Food Safety Questions?

### Call the USDA Meat & Poultry Hotline

If you have a question about meat, poultry, or egg products, call the USDA Meat and Poultry Hotline toll free at **1-888-MPHotline (1-888-674-6854)**; TTY: 1-800-256-7072.



The hotline is open year-round Monday through Friday from 10 a.m. to 4 p.m. ET (English or Spanish). Recorded food safety messages are available 24 hours a day. Check out the FSIS Web site at [www.fsis.usda.gov](http://www.fsis.usda.gov).

Send E-mail questions to [MPHotline.fsis@usda.gov](mailto:MPHotline.fsis@usda.gov).

### Ask Karen!

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