

Key Terms

Abscess

A collection of pus encapsulated in the tissues underneath the skin; can be a result of injury.

Acidity

Substances with a pH of less than 6; the lower the pH the more acidic the substance is.

Actin

The thinner filaments of muscle fibres that help regulate muscle contraction.

Actomyosin or myofibrillar toughness

The overlap of thick and thin muscle fibres which is usually overcome during the aging process at the rigor resolution phase of rigor mortis.

Adrenaline

A naturally occurring hormone found in many animals that increases blood flow to the muscles.

Aerobic

Describes organisms that require oxygen in order to grow.

Aitch bone

The outer hip extremity of the pelvic bone.

Amino acids

Organic compounds consisting of chains of molecules that are used to form proteins. There are 20 or more amino acids in the human body. In addition, eight more are called essential amino acids and must be supported by a good diet.

Anaerobic

Describes organisms that grow in environments where oxygen is not present.

Ante mortem

Before death, as in meat inspection.

Antibiotics

Substances used in the treatment of bacterial infection.

BSE (bovine spongiform encephalopathy)

A disease in beef cattle commonly known as mad cow disease.

Background toughness

Refers to the toughness in older animals or the tougher parts of younger animals, such as shanks and shoulders, that are subject to more movement and weight distribution.

Backstrap

Heavy strip of collagen, yellow in colour, that forms from the top of the spine to the end of the rib cage. Most prominent in beef and lamb carcasses.

Bacteria

Single-celled microbes that are of the most concern to food service workers.

Ballotine

A stuffed boneless chicken leg.

Barding

A technique for cooking meats where the meat is wrapped in a layer of fat before cooking it.

Blood spots and clots

In carcass meats, pre-slaughter injuries, such as a horn goring (clot) or spotting in pork legs due to improper stunning and shackling techniques, resulting in delayed bleeding that cause veins to rupture in the leg muscles, creating red spots.

Bloom

Red colour that occurs only on young beef animals post mortem and after the carcass is cooled. When beef muscle is first cut it shows as purplish red. Once exposed to oxygen it changes to a bright cherry red after about 30 minutes and can retain that colour for up to three days depending on storage conditions.

Boar

A wild pig. Boar are farm raised for commercial sale.

Break joint

A cartilaginous area of the joint on the front shanks of lamb. As sheep age, this cartilage solidifies, so the colour of the break joint is used to identify age.

Broiler

A young chicken of either sex, usually less than 2 kg (4.4 lb). Also called a fryer.

Canadian Food Inspection Agency (CFIA)

Regulatory agency responsible for the safeguarding of food, animals, and plants for human consumption.

Capon

A castrated male chicken.

Caul fat

A fatty membrane covering a pig's stomach.

Chine bone

Part of the backbone located between the second and thirteenth ribs and protruding into the interior chest cavity of a beef carcass.

Chitterlings

Pork intestines used for food.

Cholesterol

A naturally produced substance in the body; a cross between alcohol and fat that appears as scaly crystals, sparkling white, and soapy to the touch. Too much of the wrong food can produce additional cholesterol that can cause health concerns, such as blocked arteries.

Chop

A cut of meat including part of the rib.

Chronic wasting disease (CWD)

A progressive, fatal disease of the nervous system of cervids such as mule or white-tailed deer, and elk. It is known as a transmissible spongiform encephalopathy (TSE).

Clean meat

A new term to describe meat products that are produced without additional antibiotics and growth hormones, and that have been raised on a clean farm operation and humanely cared for and harvested.

Clostridium botulinum

An anaerobic microorganism (grows without air). Deadly to humans. Can occur in canned and vacuum-packed product.

Clostridium perfringens

An anaerobic microorganism (grows without air). Can occur in improperly prepared meats that have been left to stand for long periods of time.

Cold shortening

Describes the process of a smaller carcass, such as lamb, cooling too rapidly and not reaching the rigor resolution stage.

Collagen

A type of connective tissue in meat that dissolves when cooked with moisture and yields gelatin.

Combination cooking method

Cooking methods that involve both dry and moist heat, such as stewing and braising.

Connective tissue septa

Layer of connective tissue surrounding muscle fibres. Thin septa is found in tender cuts such as tenderloin and strip loin, and thick septa is found in shank and shoulder muscles.

Cornish hen

A small chicken derived from Cornish Game and Plymouth or White Rock chicken breeds.

Creutzfeldt-Jakob disease

The human form of bovine spongiform encephalopathy (BSE).

Cross bridge

A bridge between the actin and myosin filaments produced by actomyosin and permanently formed after death. Only during the rigor resolution stage of death will the cross bridges begin a tearing effect, which tenderizes the carcass during the aging process.

Cross-contamination

Pathogens being transferred from a source to food, work surfaces, or people through contact.

Cross-linking

An increase in connective tissue that occurs as animals age.

Curing

Preserved by salting, either by the use of a wet cure (brine) or a dry cure (packing in a mixture of salt, sugar, and spices).

Cutlet

A relatively thin, boneless cut of meat.

Cysts

Tumours that have been sealed off from the rest of the body; can be different sizes and are often caused by various types of injury. The tissue surrounding the affected area can be made up of a tough white fibrous tissue.

DFD

The abbreviation for “dark, firm, and dry.” Mainly occurring in beef animals that suffer stresses prior to slaughter. The hip muscles stay dark and dry after cutting and do not bloom.

Danger zone

The temperature range of 4°C to 60°C (40°F to 140°F). In this range, bacteria can multiply to enormous numbers, especially between 35°C and 40°C (95°F to 104°F).

Dark cutters

Term used to describe carcasses affected by DFD.

Dark meat

Meat from highly used muscles in poultry. In birds that fly long distances, this is all of the muscles, while for those who fly in short bursts only, such as chickens and turkeys, this is found only in the legs.

Deep cleaning

A term used to describe the strip down of any food-processing operation and the super clean of all machines, floors, walls, drains, and storage units. Usually done two or three times per year.

Defrost cycle

Part of a commercial refrigeration cycle. Heaters are automatically activated by a preset timer to melt ice buildup in the unit. Usually activated in the early morning hours.

Dressed

Defeathered, eviscerated whole birds with the head and feet removed.

Dressed carcass

Weight of an animal after all internal organs and all inedible portions are removed.

Dry aging

Hanging of carcass meats such as beef and lamb to tenderize the meat.

Dry heat cooking method

Cooking methods that use air or hot fat to cook foods, such as baking, frying, and roasting.

Duck

Domestic waterfowl with red meat and thick fat below the skin.

E. coli

A bacterium naturally found in the intestines of humans or other animals. During processing, the bacteria can end up in trim used for ground meats, but can also contaminate food by the use of contaminated water sources and unclean human hands.

Elastin

A type of connective tissue in meats that does not dissolve when cooked. Commonly known as the backstrap.

Electrical stimulation (ES)

A form of stimulation used to accelerate the normal decline of pH on mainly lamb carcasses in Canada.

Electronic probe

A probe used mainly in the hog harvesting industry as part of the grading system. The probe is inserted into the side of the carcass between the third and fourth ribs to measure meat and fat thickness.

Emincé

To cut into very thin slices.

Emu

Large flightless bird with red meat and lean flesh.

Escalope

A thin boneless slice of meat (scaloppine).

Fabricated cuts

Meat cuts that have been portioned and are ready to cook.

Fibre

Filaments of muscle tissue.

Fibrous tissue

Scar tissue from old injuries that creates a tough firm area within muscle meats.

Filet, Filet Mignon

Boneless tenderloin steak.

Fillet

Boneless chicken tenderloin.

Foodborne infection

An infection caused by food contaminated with pathogenic bacteria, parasites, and/or viruses that is ingested, causing bacterial growth in the intestines (e.g., salmonella).

Foodborne intoxication

Effects on the body produced by the consumption of harmful pathogens or substances.

Fowl / hen

A mature female chicken.

Free range

Animals, usually poultry, that are allowed to move relatively freely outdoors as they are raised for market.

Freezer burn

Greyish-brown leathery spots on frozen food that occurs when air reaches the food's surface and dries out the product.

Frenched

The process of cutting away fat and meat from the bone end of a rib chop or steak for esthetic presentation. The bone is scraped completely clean with a knife, leaving a white bone that is often decorated with a "chop frill" (rack of lamb chops is a classic example) or used as a "handle" for eating an especially large chop or steak

Fryer

A young chicken of either sex, usually less than 2 kg (4.4 lb). Also called a broiler.

Gelatin

A gelling agent derived from collagen obtained from various animal by-products.

Giblets

The collective term for edible poultry viscera, such as gizzards, hearts, and livers.

Gizzard

Organ found in the digestive tract of birds, filled with stone or grit used for grinding up food.

Glands

Filters that collect and discard bad and damaged cells from the blood. Larger glands that are visible to the meat cutter or cook are removed.

Glandular meat

Meats from internal organs or glands that contain no muscle tissue, such as liver, kidney, and sweetbreads.

Glycogen

A polysaccharide (sugar) naturally occurring in the blood.

Grading

A system to define the quality and yield of meat, carried out voluntarily while inspection is mandatory.

Growth hormones

Hormones used to increase lean muscle on farm animals produced for the food chain. Only legal for beef production in Canada.

Guinea fowl

A type of domestic poultry related to the pheasant.

Hare

Small mammal that is related to rabbits but is usually larger and lives above the ground.

Hemoglobin

A protein that produces the pigment or colour of the blood.

High-density lipoprotein (HDL)

“Good” cholesterol. Takes cholesterol back to the liver for processing.

Humidity

The measure of moisture content of the air. When air is completely saturated with moisture, the humidity is 100%. Meat coolers have a preset humidity of 75% to 80% to ensure that carcass meats retain moisture.

Inspection stamp

Proof of inspection that the harvested animal is fit for human consumption.

Intramuscular fat

Fat that appears as a pattern of wavy white lines (easy to see in a AAA grade beef ribeye muscle), commonly known as marbling.

Lactic acid

A natural acid that develops in muscle after exercise or after death (post mortem). Lactic acid development causes the pH levels of a beef carcass to drop from near neutral (7) to 5.6 to 5.2, becoming more acidic. Thus it acts as a preservative until the carcass temperature drops to 4°C (40°F).

Larding

The process of inserting strips of fat into lean meats using a larding needle to prevent meat from drying out.

Listeria monocytogenes

Bacteria found in food- and meat-processing operations that are unclean. Can appear in floor drains and can easily grow in temperatures ranging from 4°C to 37°C (40°F to 100°F). Can be fatal to humans.

London broil

Flank steak or other cut of beef broiled rare and cut in thin slices.

Low-density lipoprotein (LDL)

“Bad” cholesterol. Carries cholesterol throughout the bloodstream to various parts of the body.

Lymph nodes

Secondary organ of the lymphatic system, which helps to maintain fluid balance in the body. Inspectors examine the lymph nodes at the base of the tongue during the slaughter process to help determine the general health of the animal.

Marbling

The fat deposited within muscle tissue.

Marinated

Food that is soaked in a seasoned liquid to tenderize it.

Meat inspection

Process carried out at both provincial and federal levels to ensure all animals harvested for the Canadian and international food chains are healthy and safe to eat. Animals are inspected before and after death.

Medallion

Round slice of meat, fowl, fish, or crustacean, served hot or cold.

Metmyoglobin

Oxidized form of the protein myoglobin, which is found in meat and contributes to its colour. Responsible for the browning of meat after cutting. Also occurs in a different form in the hip muscles of beef, where rainbow-like colours appear from the reflection of light.

Mignonette

A small cut or medallion of meat.

Moist heat cooking method

Cooking method that uses liquid or steam to cook foods, such as boiling, poaching, and steaming.

Moulds

Multicellular microorganisms that can exist at almost any temperature range and condition. They appear as fuzzy or powdery patches. Meats, fruits, breads, and cheeses are susceptible to moulds.

Muscle meat

Variety meats that contain muscle tissue, such as tripe, heart, and tongue.

Myofibrils

Muscle fibres composed of bundles of thick and thin filaments arranged in a repeating pattern.

Myoglobin

One of two proteins producing the colour or pigment of the muscles. Myoglobin quantity varies with species, age, sex, muscle, and physical activity of muscle.

Myosin

The thicker filaments of muscle fibre protein that contract muscles.

Noisette

A small, usually round portion of meat cut from the rib or loin.

Offal

All edible internal organs that can be processed from animals slaughtered for human consumption. Also known as variety meats or organ meats.

Organic

Term given to food that is raised without various chemicals, growth enhancers, or certain antibiotics.

Ostrich

Large flightless bird with red meat and lean flesh.

PSE

The abbreviation for “pale, soft, and exudative.” The condition mainly occurs in hogs that suffer stresses prior to slaughter. Muscle meat in the loin area can become paler, wet, and sloppy and leak juices. A sudden increase in lactic acid pre-slaughter that causes a rapid decline in pH post-slaughter.

Paillard

A boneless chicken breast that has been pounded flat.

Partridge

Medium-sized birds, sized between the larger pheasants and the smaller quails. Partridges are native to Europe, Asia, Africa, and the Middle East.

Permeable

A product such as packaging film that still allows air to pass through.

Pheasant

A game bird similar in size to chickens, although leaner.

Popliteal gland

Secondary organ of the lymphatic system found in the leg, imbedded in a fat pocket.

Post mortem

After death, as in meat inspection.

Poultry

Any of a variety of birds raised commercially for food.

Poussin

A very small young chicken, usually less than 500 g (1 lb).

Pre-rigor

The first stage of rigor mortis, when the muscle fibres begin to shorten.

Pre-slaughter stress syndrome (PSS)

Chemical changes in an animal's body due to stress prior to harvest that cause discolouration in the meat after harvest.

Prefemoral gland

Secondary organ of the lymphatic system found in the leg.

Prescapular gland

Secondary organ of the lymphatic system found in the shoulder.

Primal cut

One of the primary divisions of meat carcasses as they are broken down into smaller cuts.

Proteins

Elements in plant or animal tissue supplying essential amino acids to the body.

Quail

Small game bird, usually between 100 and 250 g (3 and 8 oz.) dressed.

Ratites

A category of flightless birds that includes ostrich and emu.

Reportable disease

A disease that can cause great public concern, and therefore must be reported to authorities.

Ribs

Bones that cover the chest area of most animals, protecting the internal organs.

Rigor maximum

The second stage of rigor mortis, when muscle fibres reach the maximum shortening phase resulting in stiff muscles.

Rigor mortis

Latin for “the stiffness of death.” There are three stages to rigor mortis.

Rigor resolution

The third and final stage of rigor mortis, when stiff muscles begin to extend out again almost to their original length, beginning the aging or tenderization process commonly occurring with beef animals.

Roaster

Young chicken of either sex usually over 2.2 kg (5 lb).

Roller brand

A grade stamp that has been rolled the length of the carcass.

Rooster

A mature male chicken; also known as a cock.

Salmonella

Pathogen common in the internal cavity of chickens and turkeys that can often be found in uncooked poultry and egg products.

Sanitizers

Cleaning agents used in the final stage of a food-processing cleaning program, after scrubbing with soap and water and rinsing has been completed, to kill microorganisms. Sanitizers can be iodine, ammonia, chlorine, or sodium hypochlorite. The most common ones used today are quaternary ammonia and hydrogen peroxide diluted to so many parts per million and regulated by local health departments.

Sarcomere

One unit of a bundle of muscle fibres, also called the "little muscle."

Scaloppine

Thin, flattened slices of veal leg, usually cooked by sautéing.

Scrapie

A fatal disease that affects the central nervous system of sheep and goats. Also known as transmissible spongiform encephalopathy (TSE).

Secondary cut

Specific cuts of meat, usually referred to by name in recipes or menu items, and part of a primal cut. For example, the inside round is a secondary cut of the beef hip primal.

Silverskin

A tough connective tissue surrounding muscle; the pearlescent membrane found on certain cuts of meat that is removed before cooking to prevent curling.

Smoked

Preserved or flavoured by applying smoke to meats, usually after curing. Cold smoking is done at lower temperatures so as not to cook the protein in the meat; hot smoking is done at higher temperatures to cook the protein and smoke it at the same time.

Solubility

The degree to which a substance can be dissolved in water.

Specified risk materials (SRMs)

Parts removed from beef animals over 30 months old to lessen the risk of BSE. Some of the parts removed are the head, brain, part of the intestines, and most of the backbone.

Squab

A young pigeon.

Staphylococcus

An aerobic organism (needs air to grow) that causes food poisoning by releasing toxins into food. The most common carrier is the human body; found particularly on skin abrasions and in wounds, infected sinuses, pimples, and the nose. Raw poultry is also known to be a carrier.

Steak

A relatively thick, boneless cut of meat.

Sub-primal cut

A smaller section of a primal cut that yields further secondary cuts.

Sub-therapeutic hormones

See growth hormones.

Suprême

Breast of poultry with the wing bone attached.

Sweet pickle

A term used to describe a meat product that has been brined but not smoked.

Sweetbreads

The thymus gland of calves and other young animals such as lamb.

Tenderization

The process of meats becoming tender through natural processes like aging or marinating or mechanical processes like pounding or using a specialized machine.

Tendon

Very heavy collagen that forms at the end of muscle groups, such as a beef shank, which joins a muscle group to a bone at or near the exterior of a bone joint.

Tournedo

A cut of beef tenderloin with a small diameter, usually cut from the tail end.

Trichinosis

Parasitic nematodes, intestinal worms, and roundworms that enter the body when meat containing the *Trichinella* cysts is eaten. For humans, undercooked or raw pork and raw dry cured pork products, such as pork salami, have been the meat most commonly responsible for transmitting the parasite. The disease is rare in Canada.

Triglycerides

A lipid (fat) composed of glycerol and three fatty acid molecules.

Tripe

A type of variety meat (muscle meat) from the stomachs of various animals.

Tropomyosin

A chemical component of actin that assists in regulating muscle contraction (movement).

Troponin

A chemical component of actin that assists in regulating muscle contraction (movement).

Twitch fibres

Muscle fibres in different working parts of the animal, such as different muscle groups and internal organs, that move at different speeds depending on the muscle action required.

Typhoid fever

A life-threatening illness caused by salmonella bacteria.

Vacuum packaging

Process of placing food into plastic bags and removing air using a pump to create an oxygen-free environment.

Variety meats

A group of meats consisting of organs, glands, and other meats that don't form part of the dressed carcass of the animal; offal.

Venison

Meat from any of the species of the deer family, including elk.

Viruses

The smallest form of microorganisms; they grow and reproduce only inside living cells. Hepatitis is a virus that can cause a foodborne infection.

Vitamins

Organic compounds essential to the diet.

Wet aging

Vacuum-packaged carcass primal and sub-primal sections for further and longer periods of aging.

White meat

Meat from the breast and wing muscles of birds that fly in short bursts, such as chickens and turkeys.

Yeasts

Single-celled organisms that can be identified by slimy or powdery film or cloudy sediment in liquids. They most often grow on fruit, jam, processed meats, cottage cheese, and yogurt.

Yield grading

A grading system that indicates how much usable meat a carcass has in proportion to fat.

pH

Potential hydrogen; the acidity or alkalinity of a solution. A scale is used to measure the level of pH in meat carcasses [0 = acidic or dry - 7 is neutral - 14 = alkaline or moist). A living unstressed animal would indicate a 6.5 pH prior to death.