

Be Safe – Use a Meat Thermometer

A **meat thermometer** is used to measure the internal temperature of meats. It can also be used to check the internal temperature for other cooked foods, such as casseroles. The thermometer reading tells when the meat is done and safe to eat. It may also indicate when the meat is cooked to the desired doneness (e.g. rare, medium, well done). When cooking food you should always make sure the interior of the meat reaches a temperature sufficient to kill pathogens (harmful bacteria, viruses and mold) that may cause illness.

All meat thermometers have a metal probe with a sharp point which is pushed into the meat, and a digital or analog display. Some show the temperature only, while others indicate when different kinds of meat are done to the desired finish.

Bi-metal coil thermometers have a needle that rotates showing the temperature on a dial. Another variety commonly used on turkeys is the pop-up timer, which uses a spring held in by a soft material that “pops up” when the meat reaches a set temperature. Bi-metal coil thermometers and pop-up devices are the least reliable types of meat thermometers and should be accompanied by a more accurate digital thermometer.

Other types use an electronic sensor in the probe, connected by a flexible heat-resistant cable to a display. The probe is inserted in the meat, and the cable comes out of the oven and is connected to a display. Oven seals are usually flexible enough to allow this without damage to the seal or significant loss of heat. These types can be set to sound an alarm when the specified temperature is reached. Wireless types, where the display does not have to be close to the oven, are also available.

Single probe thermometers have one probe and monitor one section of the meat only. You need to insert the probe into different places to monitor different parts of the meat. Multi-probe models are available with 2 or more probes and can accurately monitor the temperature of several locations of the meat.

The probe can be inserted into the meat before starting cooking and remain there until the cooking is finished. An alternative to this is to let the meat cook for a certain time, then take it out of the oven and measure the temperature before serving. Be sure to insert the probe in the thickest part of the meat. Do not let the probe touch bone. The bone conducts heat and will give a higher reading than meat. The meat temperature is what is important and must be accurate.

Safe Minimum Cooking Temperatures

Follow the guidelines below for minimum cooking temperatures and rest time for meat, poultry, seafood, and other cooked foods. Be sure to use a food thermometer to check whether meat has reached a safe internal temperature that is hot enough to kill harmful germs that cause food poisoning.

Food	Type	Internal Temperature (°F)
Ground meat and meat mixtures	Beef, pork, veal, lamb	160
	Turkey, chicken	165
Fresh beef, veal, lamb	Steaks, roasts, chops, Rest time: 3 minutes	145
Poultry	All Poultry (breasts, whole bird, legs, thighs, wings, ground poultry, giblets, and stuffing)	165

Pork and ham	Fresh pork, including fresh ham, Rest time: 3 minutes	145
	Precooked ham (to reheat), Note: Reheat cooked hams packaged in USDA-inspected plants to 140°F	165
Eggs and egg dishes	Eggs	Cook until yolk and white are firm
	Egg dishes (such as frittata, quiche)	160
Leftovers and casseroles	Leftovers and casseroles	165
Seafood	Fish with fins	145 or cook until flesh is opaque and separates easily with a fork
	Shrimp, lobster, crab, and scallops	Cook until flesh is pearly or white, and opaque
	Clams, oysters, mussels	Cook until shells open during cooking

For more information on safe handling and cooking see FoodSafety.gov