## **Defrosting Frozen Meats**

There are three safe ways to defrost meat: in the refrigerator, in cold water, and in the microwave. The United States Department of Agriculture (USDA) does not recommend defrosting meat on the counter or in other locations.

- **Refrigerator**—It is best to plan ahead for slow, safe thawing in the refrigerator. Small packages (1 lb.) of ground beef or pork, stew meat, and steaks/chops may defrost within a day. Bone-in cuts and whole roasts may take two days or longer. Once the meat defrosts, it will be safe in the refrigerator for three to five days before cooking; one to two days for ground meat.
- Cold Water—To defrost meat in cold water, do not remove packaging. Be sure the package is
  waterproof or put it into a leak-proof bag. Submerge meat in cold water, changing the water every 30
  minutes so that it continues to thaw. Small packages may defrost in an hour or less; a three- to fourpound roast may take two to three hours.
- **Microwave**—When using a microwave to defrost meat, plan to cook it immediately after thawing because some areas of the food may become warm and begin to cook during microwaving.

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.

It is safe to cook frozen meat in the oven or on the stove or grill without defrosting it first; the cooking time may be about 50 percent longer. It is not recommended to cook frozen meat in a slow cooker because the center may not fully cook.

# **Raw Meat Handling**

The cutting boards, plates, knives, and other utensils used to prepare raw meat should be washed with soap and hot water, both before and immediately after using them. Be sure to wash your own hands before and after handling raw meat as well. Raw meat may contain harmful microorganisms.

### Liquid in Package

The red liquid in packaged meat is not blood (that is removed from the meat during slaughter and only a small amount remains in the muscle tissue). The meat's natural moisture, combined with muscle pigment, is the source of the liquid.

### Freezer Burn

Freezer burn appears as grayish-brown leathery spots on meat and is caused by air reaching the surface. Freezer burn does not make food unsafe, merely dry in spots. Cut away freezer-burned portions before cooking the food.

#### Marinating

Marinate meat in the refrigerator up to 24 hours. Boil used marinade before brushing on cooked meats. Discard any uncooked leftover marinade.

## Safe Cooking of Beef

For safety, the USDA recommends cooking hamburgers and ground beef mixtures such as meat loaf to an internal temperature of 160°F. Use a meat thermometer to confirm the internal temperature. Whole muscle meats such as steaks and roasts may be cooked to 145°F (medium rare), 160°F (medium), or 170°F (well done). It is recommended that whole muscle cuts that have been injected (moisture-enhanced) or mechanically tenderized be cooked to medium or well done.