

Learning how to evaluate recipes before trying them is an important part of ensuring food safety. The following guidelines will help you know which recipes to avoid or modify.

### **Avoid recipes containing raw eggs**

Usually, salmonella food poisoning results from contaminated food that has been improperly handled or not cooked thoroughly. *Salmonella enteritidis*, however, is an unusual strain that has been found in the ovaries of infected laying hens. Because the hens transmit the organism to the egg yolk before the shell forms, we can no longer assume that a clean, uncracked egg is safe to eat.

Although the risk of getting salmonellosis is relatively small, the infection can be life-threatening for certain people—especially the very young, the elderly, pregnant women, and people weakened by illness.

Thorough cooking is necessary to destroy the salmonella bacteria. Any recipe using raw or lightly cooked eggs should be avoided; for example

- homemade ice cream,
- homemade eggnog,
- custard sauce,
- homemade mayonnaise,
- undercooked scrambled or soft boiled eggs, and
- lightly cooked French toast.

### **Homemade ice cream**

Although salmonella bacteria will not grow below 40°F, freezing does not destroy those organisms already present in the raw eggs. Only ice cream recipes that call for cooking the egg mixture are safe to use. Another option is to substitute commercially pasteurized eggs that are available in the refrigerator case of some supermarkets.

### **Homemade noodles**

Follow these guidelines when making egg noodles.

1. Air dry *no more* than 30 minutes.
2. Freeze to prevent mold growth.
3. Cook thoroughly before serving.

### **Be cautious with marinades**

Meat, poultry and fish are sometimes soaked in a mixture of vinegar or wine and oil with various spices and herbs before cooking. The uncooked meat in the marinade is highly perishable.

Here are guidelines for a safe marinade.

1. Always marinate meat, poultry and fish in a covered container in the refrigerator.
2. Do not marinate more than 24 hours.
3. Discard any leftover marinade.

### **Follow safe meat cooking methods**

#### **Avoid low oven temperatures.**

Do not use recipes which slow cook the meat in the oven at temperatures below 325°F. This may not be sufficient to heat the center of the meat fast enough to prevent bacterial growth.

#### **Always cook meat thoroughly.**

Eating raw or partially cooked meat, poultry, or fish is potentially dangerous. Thorough cooking is needed to kill harmful bacteria that may be present in raw animal products. From a safety standpoint, hamburger that is red in the middle and steak and roast beef that are rare or medium-rare are undercooked.

Cook red meat to 160°F. Cook poultry to 180°F. Use a meat thermometer to check that it's cooked all the way through.

For a visual check, red meat is done when it's brown or gray inside. Poultry juices run clear. Fish flakes with a fork.

#### **Use slow cookers safely**

To qualify as a safe slow cooker the appliance must be able to cook slow enough for unattended cooking yet fast enough to keep food above the danger zone.

## **To determine if a slow cooker will heat food to a safe temperature:**

- Fill cooker with 2 quarts of water.
- Heat on *Low* for 8 hours or desired cooking time.
- Check the water temperature with an accurate thermometer (quickly because the temperature drops 10 to 15 degrees when the lid is removed).
- The temperature of the water should be 185° to 200°F. Temperatures above this would indicate that a product cooked for 8 hours without stirring would be overdone. Temperatures below this may indicate the cooker does not heat food high enough or fast enough to avoid potential food safety problems.

When using a slow cooker, follow these guidelines.

1. Start with fresh or thawed meat—not frozen.
2. Use chunks rather than large cuts or roasts. Use pieces of poultry—not a whole chicken.
3. Cook meat on high for 1 hour and then turn cooker to low—rather than cooking on low for the entire length of time.
4. Only use recipes that include a liquid.
5. Check internal temperature to make sure food reaches 160°F.
6. Do not delay starting time.
7. Do not reheat foods in slow cooker.
8. Keep the lid on.

## **Use USDA-tested recipes for canning**

A deadly form of food poisoning, botulism, can occur when low-acid foods are improperly processed. If the organism is present, botulism toxin can be produced. The toxin does not always create visible signs of spoilage—such as unsealed lids, mold, off-odor, or spurting liquid. Tested recipes and equipment are essential for safe home-canned foods. For more detailed information refer to current USDA or ISU Extension food preservation bulletins.

## **Refrigerate starter doughs and batters**

Starter doughs (like sourdough) and “friendship” cake batter can mold or ferment if not handled properly. For best results, store remaining starter in the refrigerator in a scalded glass, pottery, or plastic bowl with a cover.

Don’t store sourdough starter in a warm place. Unrefrigerated storage increases the possibility that undesirable microorganisms will ruin the yeast cells in the starter.

Cold storage doesn’t harm the yeast; it slows down the rate at which the yeast reproduces so it is less likely to disintegrate and become useless.

Starter that is not likely to be used for several weeks should be frozen. Before using, thaw starter in refrigerator overnight, stirring occasionally. When completely thawed, set starter in covered container at room temperature for 24 hours to promote bacterial action.

## **For additional help**

Answers to questions about safe food preparation and handling are available from the home economists who staff ISU Extension Answer Line: 1-800-262-3804.

The following food safety publications are available free from Iowa State University Extension county offices.

*Handle Food Safely*, Pm 1442

*Keep Ground Meat Safe*, Pm 1480

*Pesticides, Drinking Water and Health*, Pm 1504

*Safe Food—It’s In Your Hands*, Pm 1406

*Serve Safe Meals in the Field*, Pm 1479

*Teaching Children About Food Safety*, Pm 1464

*When the Home Freezer Stops*, Pm 1367

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