

## Safe Handling of Poultry

### SELECTING THE BEST

**Fresh is Best:** Fresh poultry (chicken, turkey, duck and goose) should have no detectable odor. The flesh should feel firm, and the surface should not feel slick.

- Look for packages that are cool to the touch and have no tears or punctures.
- Always remember to select poultry just before checking out at the register.
- Make sure all poultry, whether raw, pre-packaged or from the deli is refrigerated when purchased.
- Prevent “cross-contamination” by keeping fresh meats separate from other items. Put raw poultry packages in a plastic bag so juices won’t drip onto other foods.
- Pack raw poultry in an ice chest if it will take you more than an hour to get home and keep the ice chest in the passenger area of the car during warm weather.
- Take poultry straight home to the refrigerator or freezer.

**Dating of Poultry Products:** Product dating is not required by federal regulations. However, many stores and processors may voluntarily date packages of poultry or poultry products. If a calendar date is shown, there must be a phrase explaining the meaning of the date. Consumers should use or freeze products with a “sell-by” date within one or two days of purchase. If the manufacturer has determined a “use-by” date, observe it. The “use-by” date is for quality assurance; after the date, peak quality begins to lessen but the product may still be used. It’s always best to buy a product before its date expires. If a date expires after the poultry is frozen, the food can still be used.

**Product Inspection and Grading:** All poultry found in retail stores is either USDA-inspected for wholesomeness or inspected by state systems which have standards equal to the federal government. Each animal and its internal organs are inspected for signs of disease. The “Passed and Inspected by USDA” seal ensures that the poultry is wholesome and free from disease. Inspection is mandatory, but grading is voluntary. Poultry are graded according to USDA regulations and standards for meatiness, appearance and freedom from defects. Grade A chickens, the best grade, have plump, meaty bodies and clean skin, free of bruises, broken bones, feathers, cuts and discoloration.

**Prestuffed Poultry:** Buying retail-stuffed whole poultry is not recommended because of the highly perishable nature of a previously stuffed item. Some USDA-inspected frozen stuffed poultry **MUST** be cooked from the frozen state to ensure a safely cooked product.

### STORAGE

**Refrigeration:** Packaged fresh poultry may be refrigerated in its original wrapping in the coldest part of the refrigerator for up to two days. Cooked, cut-up poultry is at its best when refrigerated no longer than two days; cooked, whole poultry (without stuffing) may be stored for three days.

- Use an appliance thermometer to make sure refrigerator temperature is set at 34 to 38 °F.
- NEVER leave poultry in a hot car or sitting out at room temperature. Refrigerate or freeze fresh poultry IMMEDIATELY after bringing it home.
- Store uncooked poultry items together, separate from cooked foods. Make sure the raw juices do not drip onto other foods.
- Keep poultry refrigerated until you are ready to cook it, or in an ice chest for carry out.

**Freezing:** Freeze fresh poultry if you do not plan to cook it within two days after purchase. Wrap chicken parts separately in heavy-duty foil or moisture- and vapor-proof freezer bags or plastic wrap, and label for ease in selecting just the right number of parts to thaw for a single meal. Be sure to press the air out of the package before freezing. Poultry may also be frozen in its original wrap if it is first overwrapped in freezer-appropriate packaging to prevent quality loss. Cooked parts may be frozen in the same way as fresh, unless made with a sauce or gravy. In that case, pack the chicken in a rigid container with a tight-fitting lid.

## PREPARATION

**Cleanliness:** Always wash hands thoroughly with hot, soapy water before preparing foods and after handling raw poultry. Don't let raw poultry or juices touch ready-to-go foods either in the refrigerator or during preparation. Don't put cooked foods on the same plate that held raw poultry. Always wash utensils that have touched raw poultry with hot, soapy water before using them for the cooked poultry. Wash counters, cutting boards and other surfaces raw poultry have touched. Sanitize these surfaces with a solution of a teaspoon of chlorine bleach per quart of water before using for other foods.

**Thawing:** Thaw uncooked poultry in the refrigerator or in cold water. NEVER thaw poultry at room temperature. To thaw poultry in cold water, leave the poultry in its original wrapping or place it in a watertight plastic bag. Change the water every 30 minutes.

For quick thawing of uncooked or cooked poultry, use the microwave. Thawing time will vary according to whether you're thawing a whole bird or parts and the number of parts frozen together. Use the DEFROST or MEDIUM-LOW setting, according to the manufacturer's directions. Turn the bird and separate parts as they thaw; taking care the meat does not begin to cook. Repeat as needed. For a more detailed outline of defrosting poultry, refer to Table 1.

**Marinating:** Marinate poultry in the refrigerator, not on the counter. Discard the marinade after use because it contains raw juices, which may harbor bacteria. If you want to use the marinade as a dip or sauce, reserve a portion before adding raw food.

## COOKING

**Importance of Kitchen Thermometers:** One of the critical factors in controlling bacteria in food is controlling temperature. Pathogenic microorganisms grow very slowly at low temperatures multiply rapidly in mid-range temperatures, and are killed at high temperatures. For safety, foods must be cooked thoroughly. It is essential to use a thermometer when cooking meat and poultry to prevent undercooking and, consequently, prevent foodborne illness.

Using a thermometer is the only reliable way to ensure safety and to determine the "doneness" of most foods. To be safe, a product must be cooked to an internal temperature high enough to destroy any harmful bacteria that may have been in the food. Many food handlers believe that visible indicators, such as color changes in the food, can be relied on to determine that foods have been cooked to an endpoint that ensures bacterial destruction. However, recent research has shown that color and texture indicators are not reliable.

For whole chicken, duck, goose and turkey the USDA recommends 180 °F for thigh meat, 170 °F for breast meat and 165 °F for stuffing, whether cooked alone or in the bird. When cooking whole poultry, the thermometer should be inserted into the thickest part of the thigh. If stuffed, the center of the stuffing should be checked after the thigh reads 180 °F (stuffing must reach 165 °F). If cooking poultry parts, insert thermometer into the thickest area, avoiding the bone. The thermometer may be inserted sideways if necessary. When the food being cooked is irregularly shaped, the temperature should be checked in several places. Recommended cooking times for chicken, duck, goose and turkey are described in Table 2.

**Ground Chicken or Turkey:** Ground meats must be cooked thoroughly to kill harmful bacteria. Unlike whole muscle meat, whose interior meat is sterile, the grinding process exposes the interior meat in ground poultry to bacteria, which may be on the surface, in the air, on equipment or on people's hands. To kill bacteria, food safety experts have one major rule of thumb: Cook ground poultry to at least 165 °F. This step, while very simple, offers the best protection that consumers can have for serving ground poultry products safely.

## SERVING

- Wash hands with soap and water before serving or eating food.
- Serve cooked products on clean plates with clean utensils and clean hands.
- Never put cooked foods on a dish that has held raw poultry unless the dish is washed with soap and hot water.
- Hold hot foods above 140 °F and cold foods below 40 °F.
- Never leave foods, raw or cooked, at room temperature longer than two hours. On a hot day with temperatures at 90 °F or warmer, this decreases to one hour.

## LEFTOVERS

- Always use clean utensils and storage containers for safe storage.
- Divide large amounts of leftovers into small, shallow containers for quick cooling in the refrigerator; avoid placing large pots of stuffing or gravy in the refrigerator to cool

since it will likely take until the next day for this amount of food to cool.

- Remove the stuffing from the whole poultry and carve the meat off the bones, then store meat and stuffing separately in the refrigerator or freezer.
- For the refrigerator, wrap cooked meat and use within three days. For frozen storage, wrap meat in heavy foil, freezer wrap or place in freezer container; for optimum taste use frozen stuffing within one month and frozen turkey within two months.
- If you may have kept the food refrigerated for too long, throw it out. Never taste food that looks or smells strange to see if you can still use it.

For more information request HGIC 3560, *How to Cook a Turkey* and HGIC 3515, *Safe Handling of Wild Game Birds*.

**TABLE 1. SAFE HANDLING OF POULTRY IN COLD STORAGE AND DEFROSTING**

Product	Refrigerator (40 °F)	Freezer (0 °F)	Defrost		
			Refrigerator	Cold Water	Microwave
<b>FRESH CHICKEN:</b> 1. Whole 2. Pieces 3. Giblets 4. Ground	1. 1-2 Days 2. 1-2 Days 3. 1-2 Days 4. 1-2 Days	1. 9-12 Months 2. 6-9 Months 3. 3-4 Months 4. 3-4 Months	1. 24 Hrs. 2. 3-9 Hrs. 3. 3-9 Hrs. 4. 24 Hrs.	1. 2-3 Hrs. 2. 1 Hr. (1 lb.) 3. 1 Hr. (1 lb.) 4. 1½ Hrs	Check manufacturer's instructions for size of chicken. Cook immediately
<b>COOKED CHICKEN:</b> 1. Whole/Pieces 2. Giblets/Ground	1. 2-3 Days 2. 1-2 Days	1. 4-6 Months 2. 2-3 Months			Use Defrost mode. Cook immediately.
<b>FRESH TURKEY:</b> 1. Whole 2. Pieces 3. Giblets 4. Ground	1. 1-2 Days 2. 1-2 Days 3. 1-2 Days 4. 1-2 Days	1. 12 Months 2. 9 Months 3. 3-4 Months 4. 3-4 Months	1. 24 Hrs. / 5 lbs. 2. 3-9 Hrs. 3. 3-9 Hrs. 4. 1 Day	1. 30 Min./lb. Change water every half hour.	Check manufacturer's instructions for the size of turkey.
<b>COOKED TURKEY:</b> 1. Whole 2. Pieces 3. Giblets/Ground	1. 2-3 Days 2. 2-3 Days 3. 1-2 Days	1. N/A 2. 4-6 Months 3. 2-3 Months			Use Defrost mode. Cook immediately.
<b>FRESH DUCK OR GOOSE:</b> 1. Whole 2. Pieces/Giblets	1. 1-2 Days 2. 1-2 Days	1. 6 Months 2. 6 Months	1. 1-2 Days 2. 1 Day	1a. Duck: 2-3 Hrs. b. Goose: 4-6 Hrs. 2. 1-2 Hours	Check instructions according to size.
<b>COOKED DUCK OR GOOSE:</b> 1. Whole/Pieces/Giblets	1. 3-4 Days	1. 2-3 Months			Use Defrost mode. Cook immediately.

**TABLE 2. SAFE HANDLING AND COOKING OF FRESH POULTRY**

All poultry should be cooked to an internal temperature of 180 °F, except poultry breasts that may be cooked to an internal temperature of 170 °F. Cooking times are only estimates. Always use a thermometer to check proper internal temperatures to make sure poultry is thoroughly cooked.

Type of Poultry	Weight	Roasting		Grilling/Smoking*	Microwave
		Unstuffed	Stuffed		
<b>CHICKEN:</b>		<b>Roast 350 °F</b>	<b>Roast 350 °F</b>		
1. Whole Roasting Hen	5-7 lbs	2-2¼ hrs	2½-2¾ hrs	18-25 min/lb. (smoked)*	Medium-High 9-10 min/lb
2. Whole Broiler Fryers	3-4 lbs.	1¼-1½ hrs.	1¾ hrs.	60-75 min. (smoked)*	9-10 min/lb
3. Breast Halves with Bone	6-8 oz	30-40 min		10-15 min/side	8-9 min/lb
4. Boneless Breast Halves	4 oz	20-30 min		6-8 min/side	6-8 min./lb
5. Legs or Thighs	4-8 oz	40-50 min		10-15 min/side	8-9 min/lb
6. Drumsticks	4 oz	35-45 min		8-12 min/side	8-9 min/lb
7. Wings or Wingettes	2-3 oz	30-40 min		8-12 min/side	8-9 min/lb
<b>TURKEY:</b>		<b>Roast 325 °F</b>	<b>Roast 325 °F</b>		
1. Whole Turkey	12-14 lbs	3-3¾ hrs	3¾ hrs	3-4 hours (smoked)*	Medium-High 1. 9-10 min/lb
	14-18 lbs	3¾-4¼ hrs	4-4 ½ hrs	not recommended	12-14 lb. turkey
	18-20 lbs	4¼-4½ hrs	4¼-4¾ hrs	not recommended	maximum. Do
	20-24 lbs	4½-5 hrs	4¾-5¼ hrs	not recommended	not stuff.
2. Whole Breast	4-8 lbs	1½-3¼ hrs	8 lbs: 3-3½ hrs	1-2 hours	2. 10-15 min/lb
					(H) first ⅓ time
3. Half Breast	2-3 lbs	50-60 min		---	3. (M) 11-15
4. Drumsticks	¾-1 lb each	2-2¼ hrs		1½-2 hours (smoked)*	min/lb
5. Thighs	¾-1 lb each	1¾ hrs		1½-2 hours (smoked)*	4-6. (MH) 13-16
6. Wings or Wingettes	6-8 oz each	1¾-2¼ hrs		50-60 min	min/lb
<b>DUCK AND GOOSE:</b> (See note below.)		<b>Roast 350 °F</b>	<b>Roast 350 °F</b>		
1. Whole Duckling	4-6 lbs	30-35 min/lb	Not Advised	2½ hrs (smoked)*	Medium-High 6-7 min/lb
2. Duckling Breast or Parts		2 hrs		30-40 min (grilled)	6-7 min/lb
3. Whole Young Goose	8-12 lbs	2½-3 hrs	3-3½ hrs	2½ hrs (smoked)*	6-7 min/lb
4. Goose Parts		2 hrs		35-40 min (grilled)	6-7 min/lb

\*If smoked, use indirect heat and a drip pan rather than direct heat when grilled. **DO NOT STUFF.**

Note: Prick skin of whole duck or goose before roasting or smoking so fat can render.

#### SOURCES:

1. USDA/FSIS *Focus On: Chicken* (June 1995), *Food Safety of Turkey...from Farm to Table* (July 1997), *Facts about Ground Poultry, Food Safety of Duck and Goose...from Farm to Table*, and *The Big Thaw – Safe Defrosting Methods* (July 1996).
2. USDA/FSIS *Food Safety in the Kitchen: A HACCP Approach* (November, 1996) and *Kitchen Thermometers* (October 1997).
3. Iowa State University Extension. *Food Safety Project* (1997). Copyright.

This information has been reviewed and adapted for use in South Carolina by P.H. Schmutz, HGIC Information Specialist, and E.H. Hoyle, Extension Food Safety Specialist, Clemson University.

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