



2023 Food Code - Chapter 3717-1-03 Reference Guide

Time/Temperature Controlled for Safety (TCS) Foods: Minimum Cooking Temperatures & Times

165°F (74°C) for 15 seconds 7-log reduction in microorganisms	RAW POULTRY; balut; STUFFED raw fish, meat, pork, pasta, poultry or ratites; STUFFING containing raw fish, meat, poultry or ratites.
165°F (74°C)	Microwave Cooking for raw animal foods: covered, rotated or stirred throughout or midway through the cooking process, and held for 2 minutes covered.
155°F (68°C) for 15 seconds, or 158°F (70°C) for <1 second 150°F (66°C) for 1 minute 145°F (63°C) for 3 minutes	RAW RATITES; injected meats; COMMINUTED (Ground, minced, chopped, flaked, combined with other meats) raw animal foods such as fish, ground beef & other meats, commercially raised game animals, exotic animals or rabbits; RAW SHELL EGGS not prepared for immediate service (combined or prepared for hot hold), {also see Highly Susceptible Populations (HSP)}.
145°F (63°C) for 15 seconds	RAW SHELL EGGS prepared for immediate service; Fish and meat including commercially raised game animals, exotic animals or rabbits; READY TO EAT FOODS SUBJECTED TO BARE HAND CONTACT that are added as an ingredient to a food that does not contain a raw animal. RAW WHOLE-MUSCLE, INTACT BEEF STEAK that is properly labeled as such may be served undercooked as RTE if the surface temperature is cooked to at least 145°F, a cooked color change is achieved on all surfaces, and the facility does not serve a highly susceptible population.

144°F (62.2°C) 5 minutes*	158°F (70.0°C) 0 sec.*
142°F (61.1°C) 8 minutes*	157°F (69.4°C) 14 sec.*
140°F (60.0°C) 12 minutes*	155°F (68.3°C) 22 sec.*
138°F (58.9°C) 18 minutes*	153°F (67.2°C) 34 sec.*
136°F (57.8°C) 28 minutes*	151°F (66.1°C) 54 sec.*
135°F (57.2°C) 36 minutes*	149°F (65.0°C) 85 sec.*
133°F (56.1°C) 56 minutes*	147°F (63.9°C) 134 sec.*
131°F (55.0°C) 89 minutes*	145°F (62.8°C) 4 minutes*
130°F (54.4°C) 112 minutes*	

Oven Type	Weight <10 lbs.(4.5kg)	Weight ≥10 lbs. (4.5kg)
Still Dry	≥ 350°F (177°C)	≥ 250°F (121°C)
Convection	≥ 325°F (163°C)	≥ 325°F (163°C)
High Humidity	≥ 250°F (121°C)	≥ 250°F (121°C)

1. Relative humidity >90% for >1 hour as measured in the cooking chamber or exit of oven, or in a moisture-impermeable bag that provides 100% humidity.

***Note: holding time may include post-cooking heat rise**

135°F (57°C)	PLANT FOOD COOKING FOR HOT HOLDING: fruits and vegetables that will be held hot shall be cooked to the hot holding temperature of at least 135°F (57°C)
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<p>COOKING RAW ANIMAL FOODS USING A NON-CONTINUOUS COOKING PROCESS</p> <ul style="list-style-type: none"> Facility must have written procedures approved by the local health department before process is implemented. Written procedures must be available to local health department upon request. The food shall be subject to an initial heating process that is no longer than 60 minutes. The food shall be properly cooled immediately after initial heating. After cooling, the product shall be held at 41°F or less or frozen. Prior to service or sale, the product shall be cooked to the minimum cooking temperatures and times listed above (Food may not be served raw or undercooked).

<p>COLD and HOT HOLDING:</p> <ul style="list-style-type: none"> Cold TCS foods 41°F (5°C) or less. Hot TCS foods 135°F (57°C) or higher, except beef & pork roasts cooked or reheated as stated above, may be held at 130oF (54°C).
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<p>REHEATING FOR IMMEDIATE SERVICE: Cooked and refrigerated RTE foods in response to a consumer's order may be served at any temperature (i.e. roast beef sandwich au jus).</p>
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REHEATING FOR HOT HOLDING: Must be completed in < 2 hours.

- Leftover TCS foods shall be reheated to at least 165°F (74°C) for 15 seconds. Foods reheated in a microwave shall also be rotated or stirred, covered, and held for 2 minutes prior to serving.
- Remaining unsliced portions of beef or pork roasts cooked to the temperatures listed above may be reheated to the same temperatures.
- Commercially processed, packaged RTE, TCS food shall be reheated to at least 135°F (57°C).

COOLING TCS FOOD:

- Hot TCS foods shall be cooled from 135°F to 70°F (57°C to 21°C) within 2 hours, and from 135°F to 41°F (57°C to 5°C) within 6 hours or less.
- TCS foods prepared from room temperature ingredients shall be cooled to 41°F (5°C) within 4 hours (i.e. reconstituted foods, canned tuna).
- TCS foods received in compliance with laws allowing a receiving temperature above 41°F (5°C) (i.e. milk, red meat, molluscan shellfish) shall be cooled to 41°F (5°C) within 4 hours; except raw shell eggs, which must be immediately placed in refrigeration at 45°F (7°C) or less.

FROZEN FOOD:

Stored frozen food shall be maintained frozen.

- Slacking: moderating the temperature of food under refrigeration at 41°F (5°C) or less, OR at any temperature if the food remains frozen.
- Thawing: Frozen food must be thawed under refrigeration at 41°F or less, under running water of 70°F (21°C) or less, or during the cooking process.
- Thawing ROP fish: Must be removed from the reduced oxygen environment prior to refrigeration, or prior to or immediately upon thawing under running water.

TIME AS A PUBLIC HEALTH CONTROL (Without temperature control):

- Written procedures must be on-site and available to the local health department.
- The working supply (before cooking) or RTE (for sale, service or display) TCS food shall be marked or identified with the time that is 4 hours past the point of being removed from temperature control. The food shall be discarded after 4 hours OR if the product is unmarked or mismarked. Food shall have an initial temperature of 41°F or less, except batters containing dried eggs or milk which become TCS upon hydrating them may have an initial temperature of 70°F or less provided that the temperature never exceeds 70°F.
- The working supply or RTE TCS food shall be marked or identified with the time that is 6 hours past the point of being removed from temperature control. The food shall be discarded 1) after 6 hours; 2) if food temperature or ambient air temperature exceeds 70°F; or 3) if the product is unmarked or mismarked.

DATE MARKING FOOD:

Refrigerated RTE, TCS foods prepared in the facility or opened commercially packaged foods held for more than 24 hours must be marked to indicate the date/day the food shall be consumed on the premises, sold, or discarded, and shall not exceed 7 days. The day of preparation or opening shall be counted as day one. RTE, TCS foods or ingredients subsequently combined with additional ingredients or portions shall retain the date marking of the earliest opened or first-prepared ingredient. Food shall be discarded if the date mark exceeds 7 days OR the food is not date marked.

- The date mark may not exceed the manufacturer's use-by date if the manufacturer's date is based on food safety.
- Foods frequently re-wrapped (e.g. deli meats, roasts, etc.) or bulk product (i.e. soft-serve mix) may be marked by an alternative method if approved by the licensor.
- If the foods are subsequently frozen:
 - Freezing RTE TCS foods "stops the clock" on the number of days the food must be consumed or discarded, but it does not reset the maximum 7-day period.
 - When the food is thawed, the food must either be 1) marked that it must be consumed within 24 hours; OR 2) marked with the new use-by date based on the combined total of days in refrigeration both before freezing and after removing from freezer.
- EXCEPTIONS to date marking:
 - Individual meal portions served or repackaged for sale from a bulk container to fill a consumer's request;
 - Shelf stable, dry fermented or salt-cured sausages or products such as pepperoni, Genoa salami, prosciutto, and Parma (ham);
 - Hard (e.g. cheddar, gruyere, parmesan and Reggiano, and romano) and Semi-soft (e.g. blue, edam, gorgonzola, gouda, and Monterey jack) cheeses;
 - Commercially manufactured deli salads (ham salad, seafood salad, chicken salad, egg salad, pasta salad, potato salad, and macaroni salad)
 - Cultured dairy products such as yogurt, sour cream and buttermilk;
 - Preserved fish products such as pickled herring dried or salted cod; and
 - Shellstock

HIGHLY SUSCEPTIBLE POPULATION (HSP):

Persons who are more likely to experience foodborne disease and includes immunocompromised individuals, preschool aged children, or older adults who obtain food in a facility that provides custodial care, health care, or assisted living.

- The following may not be offered or served to HSP: un-pasteurized juice or beverage containing juice; raw or partially cooked animal foods such as raw fish, steak tartare, rare meat, soft-cooked eggs, meringue, and raw seed sprouts.
- Pasteurized eggs or egg products shall be substituted for raw shell eggs in the preparation of:
 - Food such as Caesar salad, hollandaise sauce, mayonnaise, meringue, egg nog, ice cream; and
 - Recipes in which more than one egg is broken and combined, unless the raw eggs are combined immediately before cooking for one consumer’s serving, such as scrambled eggs; combined before baking and the eggs are thoroughly cooked, such as a cake or muffin; or the food preparation is conducted under a HACCP plan.
- Food employees may not contact RTE foods with their bare hands.
- Time only as the public health control may not be used for raw eggs.

PREVENTING CONTAMINATION FROM HANDS:

Contamination of foods can be prevented through use of gloves, utensils, deli-tissue, or serving equipment.

- Bare-hand contact with RTE foods is prohibited unless the local health department has approved a bare-hand contact procedure in accordance with OAC 3717-1-03.2 (A)(4).
 - Bare-hand contact with RTE foods is strictly prohibited if the facility serves a highly-susceptible population.
 - Bare-hand contact with RTE foods is permissible when washing fruits and vegetables.

Glove Use

- Hands must be thoroughly washed prior to putting on gloves.
- Single use gloves shall be used for only one task and discarded when damaged or soiled or when interruptions occur in the operation.
- Slash-resistant gloves used to protect the hands while cutting may not come in direct contact with food unless it will be cooked in accordance with cooking temperatures specified in OAC 3717-1-03.3.
- Cloth gloves may not come in direct contact with food unless it will be cooked in accordance with cooking temperatures specified in OAC 3717-1-03.3.

LABELING REQUIREMENTS:

<p>Packaged Foods must be labeled in accordance with state and federal requirements. Minimum information included on the label must include:</p> <ul style="list-style-type: none"> • Common name of the food • List of ingredients and sub-ingredients in descending order of predominance (weight) • Accurate declaration of net quantity • Name and place of business of the product manufacturer, packer or distributor • Allergen declaration • Nutrition labeling (if applicable) 	<p>Bulk Foods available for customer self-dispensing must be prominently labeled with original packaging label from manufacturer or a card, sign or other method of notification with minimum labeling information.</p>
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Consumer Advisory – Facilities that sell or serve raw or undercooked animal foods such as beef, eggs, fish, lamb, milk, pork, poultry, or shellfish must prominently display a consumer advisory statement using brochures, deli care or menu advisories, label statement, or other effective means. The consumer advisory must include the following:

- Description of the animal-derived food (e.g. “oysters on the half shell,” “raw-egg Caesar salad,” or “hamburgers”)
- Identification of the animal-derived foods by asterisking them to a footnote that states the items are served raw or undercooked, or contain raw or undercooked ingredients.
- Disclosure must indicate that consumption of raw or undercooked meats, poultry, seafood, shellfish, or eggs may increase risk of foodborne