

Food Code Fact Sheet #31

What you should know about the Code

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OAR 333-150-0000, CHAPTER 3-501.14

Cooling.

(A) Cooked potentially hazardous food (time/temperature control for safety food) shall be cooled:

- (1) Within 2 hours from 57°C (135°F) to 21°C (70°F); P and
- (2) Within a total of 6 hours from 57°C (135°F) to 5°C (41°F) or less. P

(B) Potentially hazardous food (time/temperature control for safety food) shall be cooled within 4 hours to 5°C (41°F) or less if prepared from ingredients at ambient temperature, such as reconstituted foods and canned tuna. P

PUBLIC HEALTH REASONS:

Safe cooling requires removing heat from food quickly enough to prevent microbial growth. Excessive time for cooling of potentially hazardous foods (time/temperature control for safety foods) has been consistently identified as one of the leading contributing factors to foodborne illness. During slow cooling, potentially hazardous foods (time/temperature control for safety foods) are subject to the growth of a variety of pathogenic microorganisms. If the food is not cooled in accordance with this rule requirement, pathogens may grow to sufficient numbers to cause foodborne illness.

If the cooking step prior to cooling is adequate and no recontamination occurs, all but the spore-forming organisms such as *Clostridium perfringens* or *Bacillus cereus* should be killed or inactivated. However, under substandard sanitary conditions, other pathogens such as *Salmonella* or *Listeria monocytogenes* may be reintroduced. Thus, cooling requirements are based on growth characteristics of organisms that may survive or be a post-cook contaminant and grow rapidly under temperature abuse conditions.

Improper cooling is one of the leading causes of foodborne illness. Cooling food quickly is important to keep bacteria from growing in food while it is in the danger zone (41F-135F).

Food must be cooled from 135F to 70F within the first two hours and then to below 41F within a total of six hours from starting the cooling process.

Here are the best ways to quickly cool food:

- Placing the food in shallow pans
- Separating the food into smaller or thinner portions (ex: large roasts)
- Using rapid cooling equipment like ice wands
- Stirring the food in a container placed in an ice water bath on the counter or in your food prep sink
- Using containers (like metal instead of plastic) that facilitate heat transfer
- Adding ice as an ingredient (ex: refried beans, soups)

Cooling food should be uncovered or loosely covered and protected from overhead contamination. The top rack of your walk-in can be a good place to cool foods. Be sure to place the containers with space between them on the shelf and not to stack them, which would trap the heat inside.

It is important to log the temperatures of the food you are cooling and the time it takes so you know your cooling method is working.

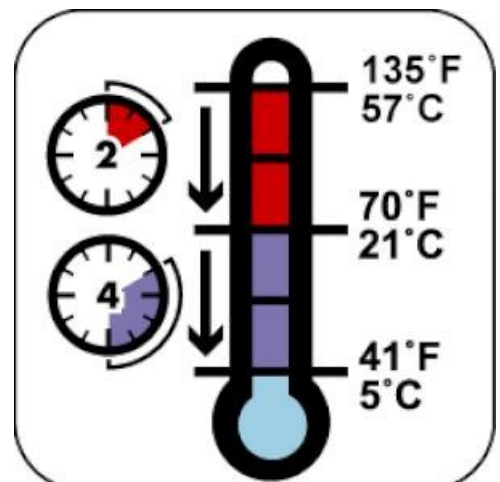
Pay attention to foods that are made from room temperature ingredients, like canned tuna, fresh pico de gallo, and potato salad. These foods need

to be placed immediately in the walk-in (not a prep top unit) after they are prepared so they can properly cool to below 41F within 4 hours

Cooling in Mobile Food Units

Mobile food units may not cool potentially hazardous foods (PHF) unless they comply with **one** of the following conditions:

- The food is cooled in a licensed commissary;
- Commercial refrigeration equipment is provided on the unit; or
- Written cooling procedures are prepared in advance by the operator and approved by the regulatory authority prior to conducting cooling on the unit. The person in charge shall maintain cooling logs and record temperature measurements to document that food is cooled properly. Cooling logs must be maintained on the unit for 90 days and be available for review during inspections
- Mobile food units licensed prior to February 1, 2020 must meet this requirement by July 1, 2020.



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