

Parasite Destruction FAQ

Why is parasite destruction necessary?

All living organisms, including fish, can have parasites. Parasites are a natural occurrence, not contamination. They are as common in fish as insects are in fruits and vegetables. Parasites are killed during the cooking process and therefore do not present a health concern in thoroughly cooked fish.

Parasites become a concern when consumers eat raw, undercooked or lightly preserved fish such as sashimi, sushi or ceviche. Freezing, as required under Section 050.260(A) of the Regulations of the Washoe County District Board of Health Governing Food Establishments, kills any parasites that may be present.

What raw and undercooked fish does parasite destruction apply to?

Parasite destruction applies to all raw and undercooked fish except those listed in Section 050.260 (B) (see below). The regulations define fish as,

“Fish” defined.

- A. "Fish" means fresh or saltwater fin-fish, crustaceans and other forms of aquatic life (including alligator, frog, aquatic turtle, jellyfish, sea cucumber, and sea urchin and the roe of such animals) other than birds or mammals, and all mollusks, if such animal life is intended for human consumption.
- B. "Fish" includes an edible human food product derived in whole or in part from fish, including fish that have been processed in any manner.

Fish that does not require parasite destruction per Section 050.260 (B) include:

- Molluscan shellfish;
- Tuna of the species *Thunnus alalunga*, *Thunnus albacares* (Yellowfin tuna), *Thunnus atlanticus*, *Thunnus maccoyii* (Bluefin tuna, Southern), *Thunnus obesus* (Bigeye tuna), or *Thunnus thynnus* (Bluefin tuna, Northern); or
- Aquacultured fish, such as salmon, that:
 - If raised in open water, are raised in net-pens, or
 - Are raised in land-based operations such as ponds or tanks, and
 - Are fed formulated feed, such as pellets, that contains no live parasites infective to the aquacultured fish.



A waiver is required to be exempted from parasite destruction of a raw or undercooked fish that is a hazard for parasites.

What are the requirements for parasite destruction?

Except for fish listed in Section 050.260 (B), fish that are served raw or partially cooked must be subjected to parasite destruction by freezing. There are three acceptable time/temperature methods to accomplish parasite destruction. All methods require that documentation or records be kept (see question 4) on site and available for review during the food establishment inspection per Section 050.260 (B).

The three acceptable time/temperature methods are:

1. Fish shall be frozen solid and stored at a temperature of $-4^{\circ}\text{F}\pm 2^{\circ}$ or below for a minimum of 168 hours (seven days) in a freezer.
2. Fish shall be frozen at $-31^{\circ}\text{F}\pm 2^{\circ}$ or below until solid and stored at $-31^{\circ}\text{F}\pm 2^{\circ}$ or below for a minimum of 15 hours.
3. Fish shall be frozen at $-31^{\circ}\text{F}\pm 2^{\circ}$ or below until solid and stored at $-4^{\circ}\text{F}\pm 2^{\circ}$ or below for a minimum of 24 hours.

What records do I need to keep?

Fish that are treated for parasites (frozen) by the food establishment: Records documenting the freezing temperature and time to which the fish were subjected must be maintained at the food establishment for 90 days beyond the time of service or sale as per Section 050.265. Three separate time/temperature logs for parasite destruction are available on the Food Safety webpage.

Fish treated for parasites (frozen) by the supplier: A written agreement or statement from the supplier that the fish was frozen solid to a time/temperature as specified in Section 050.260 (A) may be substituted for the records specified in Section 050.265 (B).

Fish that are farm raised (not treated for parasites): A statement from the supplier stating that the fish were raised and fed as specified in Section 050.260 (B) (3) shall be retained at the food establishment for 90 calendar days beyond the time of service or sale of the fish.

Where can I get more information?

The FDA's "[Fish and Fisheries Products Hazards and Controls Guidance](#)" document contains detailed information regarding parasite destruction in chapter 5.

The FDA's "[Fish and Fisheries Products Hazards and Controls Guidance](#)" document contains tables with types of fish (vertebrate and invertebrate) and their associated hazards in chapter 3.

If you have questions, contact your food establishment's inspector.