



## Parasite Destruction FAQ

### 1. 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 the 2010 regulations, kills any parasites that may be present.

### 2. What raw and undercooked fish does parasite destruction apply to?

Parasite destruction applies to all raw and undercooked fish except those listed in regulation 3-402.11B (see below). The 2010 regulations define fish as, “(A) A fresh or saltwater finfish, crustacean and other forms of aquatic life, other than birds or mammals, and including but not limited to alligator, frog, aquatic turtle, jellyfish, sea cucumber, sea urchin, and the roe of such animals, and 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.” (1-202)

Fish that does not require parasite destruction (3-402.11B) include:

- Molluscan shellstock (1-202).
- Tuna of the species *Thunnus alalunga*, *Thunnus albacares* (Yellowfin tuna), *Thunnus altanticus*, *Thunnus maccoyii* (Bluefin tuna, Southern), *Thunnus obesus* (Bigeye tuna) or *Thunnus thynnus* (Bluefin tuna, Northern).
- Farm raised fish that have been fed formulated feed (i.e. pellets); documentation is required.

A waiver is required to be exempted from parasite destruction of a raw or undercooked fish that is not a hazard for parasites. Visit the Waiver Requests webpage for more information.

### 3. What are the requirements for parasite destruction?

Except for fish listed in regulation 3-402.11B, 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 (3-402.11A). All methods require that documentation or records be kept (see question 4) on site and available for review during the food establishment inspection (3-402.12A).



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.

#### 4. 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 3-402.12A. Three time/temperature logs for parasite destruction done in-house are available to download.

**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 3-402.11 may be substituted for the records specified in 3-402.12A as per 3-402.12B.

**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 3-402.11 (B) (3) shall be retained at the food establishment for 90 calendar days beyond the time of service or sale of the fish as per 3-402.12C.

#### 5. 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.

<http://www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/Seafood/FishandFisheriesProductsHazardsandControlsGuide/ucm091704.htm>

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.

<http://www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/Seafood/FishandFisheriesProductsHazardsandControlsGuide/ucm091070.htm>

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