

Freezing fish, fishery products and treatment for parasites

How to handle fish and fishery products that are intended to be eaten raw or lightly cooked in food businesses and restaurants.

Parasites

All fish species are potentially at risk from parasites. As well as being unsightly, if live parasite larvae are eaten, it can cause human illness including abdominal pain, nausea or allergic reactions in some people.??

Anisakis is an example of a food-borne parasite which infects finfish and cephalopod molluscs such as squid.??

Requirements for fishery products

Food business operators (FBOs) must ensure that fishery products have been visually examined for parasites before they are placed on the market. Fishery products that are obviously contaminated with parasites must not be placed on the market for human consumption. Further information about Anisakis and detailed rules relating to visual inspections can be found on [our Anisakis webpage](#).

Parasite Treatments

Cooking or freezing are effective treatments for killing any viable parasites which may remain undetected after inspection.??

- cooking to 60°C for at least one minute is sufficient although trematodes may require a more stringent heat treatment. For more information, please see [SFBB cooking safely guidance for caterers](#), or [Safe Catering](#)

or

- ?lowering the temperature in all parts of the product to at least either:?
- –20°C for not less than 24 hours?

- –35°C for not less than 15 hours?

Fishery Products intended to be consumed raw

Under food hygiene legislation, FBOs placing fishery products on the market derived from finfish and cephalopod molluscs which are intended to be eaten raw must subject either the raw material or finished product to a freezing treatment meeting the above time/temperature requirements.?

These include:?

- sushi?
- sashimi?

Fishery products must also be frozen as above when the intended processing treatment is insufficient to kill any viable parasites.?

Examples can include:?

- cold smoked fish where the smoking process does not achieve a core temperature of 60°C for at least one minute?
- gravlax?
- carpaccio?
- some pickled herring products?
- some marinated fish products?
- salted fishery products?

Exemptions from freezing - products intended to be consumed raw

Fishery products intended to be consumed raw are exempt from the freezing requirements if they satisfy the requirements concerning parasites laid out in the specific hygiene regulations in [England and Wales](#), and in [Northern Ireland](#).??

If a FBO can satisfy the competent authority that fishery products meet the requirements for exemption outlined in the specific hygiene regulations (see below), they need not freeze their product before placing it on the market. In this case, commercial documents accompanying the fishery product must clearly indicate how the product complies with the specific conditions for exemption. Please see documentary requirements.?

Wild-caught fish

This requires epidemiological data showing that the fishing grounds of origin do not present a parasitic health hazard and the fishing ground has been authorised as such by the competent authority.?

There are no current UK authorised exemptions for any wild-caught fishery products.?

Farmed fish

This requires that farmed fish are cultured from embryos, fed exclusively on a diet that cannot contain viable parasites and:

- have been exclusively reared in an environment that is free from parasites?

or

- the food business can verify through procedures approved by the competent authority that the fishery products do not present a health hazard in relation to the presence of viable parasites?

There is a general freezing exemption for Atlantic salmon, which are reared using farming methods that have a minimal risk of parasite infection.?

The process uses raised sea pens and fish are fed on a controlled artificial diet that cannot be infected with larval parasites.??

Atlantic halibut and rainbow trout that are reared using the same production method as salmon are also generally exempt. In addition, other fish species similarly reared may be approved for exemption.??

Equivalent production processes for freshwater systems may also qualify for exemption. These are land-based systems using tanks or onshore ponds, not in the sea. They can provide alternative rearing conditions that would meet the freezing exemption conditions as they would be free from parasites.??

Documentation requirements

When frozen

FBOs carrying out freezing treatments must provide information on the type of freezing process that the fish or fishery product has undergone except when supplied to the final consumer. The freezing process can be applied at the most appropriate point in the food chain. For example, once it is known whether the fresh fish is intended to be consumed raw or will be cooked. Commercial agreements between suppliers and customers can set out who takes responsibility

for the freezing obligation.?

When exempt from Freezing?

It is the responsibility of the FBO placing the fishery product on the market to demonstrate that the product is free of parasites, complies with hygiene regulations, and meets the criteria to be exempt from freezing.?

Products sold and intended for raw consumption without a freezing treatment must be sourced from fishing grounds or fish farms that meet the exemption conditions.?FBOs may provide information to demonstrate this via commercial documentation or any other information accompanying the fishery products.

When importing?

If you are not applying a freezing treatment to an imported fish or fishery product, you need to check the source conditions meets the appropriate treatment exemptions.?

The fishery product should come with verified documents from the exporting country.??

Selling/Labelling?

When selling your product to another food business, you need to inform the buyer about the freezing treatments you have applied. Without this, the buyer won't know if they need to apply a freezing treatment themselves.

Buying?

FBOs should not assume that a freezing treatment has been applied to fish or fishery products, or that they are exempt from the freezing requirements unless this is confirmed in documentation provided by the supplier.

If a freezing treatment has not been applied or there is any doubt, FBOs can carry out the freezing treatment which should be reflected in their food safety management system.?

Further Information?

If you have additional questions about freezing or exemptions, in the first instance you should contact your [local authority](#) or district council. ?