

## *Advice for consumers and recreational fishers*



Fresh Irish seafood is both nutritious and delicious. It is widely recognised that there are significant health benefits associated with consuming at least two portions of fish per week, one of which should be oily fish such as mackerel, tuna or herring. However, as with all perishable foods, some basic but important precautions are required to ensure consumer safety, as mishandling of these fish can result in the production of histamine in their flesh.

Histamine (also called scrombotoxin) is a naturally occurring chemical produced in the flesh of some oily fish such as tuna and mackerel after harvest. Poor handling practices, particularly lack of proper chilling or icing of these fish can cause high levels of histamine to develop quite rapidly, especially in warm weather.

Consumption of fish with high levels of histamine can cause illness, the symptoms of which may include any or all of the following:

- A peppery taste in the mouth
- Itching of the face and around the mouth
- A burning sensation in the throat
- Difficulty swallowing
- Flushing of the face or other body parts
- Weakness
- Palpitations
- Severe headache
- Abdominal cramps
- Nausea/ vomiting
- Diarrhoea

Onset of symptoms may be rapid, occurring within minutes of consumption, although it can be up to a couple of hours before they appear. Symptoms can last up to 24 hours and (subject to medical advice) may be effectively treated with anti-histamines.

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## HISTAMINE IN SEAFOOD



### Keep it Safe

Some basic precautions along the food chain 'From Catch to Table' can help ensure your safe enjoyment of these fish:

#### Recreational Fishing

Line-caught mackerel and tuna should be killed swiftly and humanely to minimise suffering and tissue damage. The following precautions will help minimise the risk of histamine formation and also result in a better quality of fish to be enjoyed:

- Have adequate ice and clean (preferably insulated) containers or other suitable means of chilling to hand. Cooler boxes or bags are ideal.
- Do not leave the fish exposed to high temperatures or direct sunlight for any longer than absolutely necessary. Exposure to higher temperatures can cause the development of histamine in the fish flesh without affecting its appearance.
- Do not over handle the fish and ensure bruising is kept to a minimum as bruised or damaged flesh will deteriorate faster.
- Gutting should be carried out swiftly and neatly taking care to avoid damage to the fish flesh.

#### Purchasing

Always ensure the fish you select are well chilled and from a reputable source and choose the freshest fish available to you. The following pointers will assist you in choosing wisely:

- Fresh fish is shiny, moist and firm to the touch, the flesh becomes more yielding as it deteriorates, so fish that have become 'flabby' to the touch are best avoided.
- Fresh fish will have a fresh, clean smell of the sea. Fish with an 'off' odour should be rejected.
- Grey, cloudy or 'milky' eyes indicate that the fish is past its best, whilst bright shiny eyes are a good indicator of freshness.
- Sticky or discoloured gills are another indicator that the fish is losing its freshness, depending on the species; the gills should present a clean pink to red colouring.
- If there are traces of blood remaining in the cavity of a gutted fish it will be bright red in colour in a fresh fish.

### Storage and Transport

It is extremely important to minimise the length of time fresh fish is left without ice or refrigeration. For this reason it should be bought at the end of your shopping trip. Also:

- Minimise transport time and ensure the fish remains cold throughout, a cooler bag or box is recommended.
- Place your fish into refrigerated storage as soon as possible. A storage temperature of 5°C or less is recommended.
- In the case of whole fish, ensure the cavity is fully gutted and rinse under cold running water.
- Store the fish toward the bottom of the refrigerator and consume as soon as possible.
- Fish that becomes damaged or which smells or looks spoiled should always be disposed of.

### Consumption

Histamine is colourless, odourless and is not destroyed by cooking or freezing. Therefore, it is essential that the above precautions are taken to minimise the risk of illness. Histamine is also tasteless, although on occasion patients have reported a 'peppery' taste from the fish, which may be associated with spoilage.

### Enjoy

Fresh Irish seafood is both nutritious and delicious. Due to the short time required to properly cook fresh fish it is also the ultimate 'convenience' food, whilst the health benefits of fish oils are now widely recognised.

The simple precautions outlined above will help you to ensure the safety of the seafood you, your family and your friends enjoy.

### See Also:

SFPA Leaflet Number 10: Histamine in Seafood: Advice for Industry