

## SHELLFISH & FISH ALLERGY

### Introduction

Allergies to shellfish or fish are quite common, but usually the person knows what caused the problem, but the reaction may be severe and sufferers should have an emergency plan. This may include an adrenaline autoinjector for severe reactions.

Fish and shellfish are quite different. People who are shellfish-allergic may be able to eat fish, and vice versa. But be aware that there is a risk of cross-contamination in restaurants, markets and open fish counters

It is rare for a fish allergic patient to be allergic to all fish species; however as different types of fish often share common proteins, and as contamination is common someone who reacts to one type of fish may be advised to avoid all fish. This also applies to shellfish.

### Different Types of Shellfish

Biologically speaking, shellfish are aquatic invertebrates rather than fish. They can be divided into four main groups:

**Crustaceans** (e.g. crab, lobster, crayfish, shrimp, prawn)

#### **Molluscs:**

(a) **Bivalves** (e.g. mussels, oysters, scallops, clams)

(b) **Gastropods** (e.g. limpets, periwinkles, snails)

(c) **Cephalopods** (e.g. squid, cuttlefish, octopus)

People who have reacted to one type of shellfish (e.g. crab) are likely to react to other members of the same group (in this case, other crustaceans). If you react to crab, avoid that and the rest of the crustacean group. If you react to squid, avoid that and the rest of the cephalopod group. Shellfish from the other groups may not necessarily present a problem.

Allergy tests may help to predict which types of shellfish you will react to, but if in doubt it may be best to avoid all shellfish.

### Eating Out

In restaurants, inform staff if you have shellfish or fish allergy. Find out what your food is fried in, and whether the oil has been used for anything else. Check the ingredients of all stocks and soups as fish and shellfish may form the basis for these. If your allergy is very

severe, ideally, your companions should avoid eating fish/shellfish in your presence, as there is a small risk that breathing in the cooked food may cause a reaction. People have also been known to go into anaphylactic shock after breathing in airborne particles of shellfish or fish allergen in open fish markets.

### Pre-packaged Foods

New food ingredients labeling laws were voluntary from November 2004, and have the force of law from 25<sup>th</sup> November 2005. They include all prepacked foods, drinks and alcoholic beverages for sale within the European Union. A full list of ingredients must be given for fish and crustaceans however small the amount. Producers do not have to state that products may have been contaminated during processing or that they contain mollusks. You should always check the label for the type of shellfish/fish to which you are allergic. Some supermarkets will have a "CONTAINS" bar, which will indicate the presence of fish and shellfish, but policies vary from store to store and brand to brand. Be extra careful when choosing stocks, soups and highly processed foods, which may contain shellfish or fish extract to add flavour.

### Dishes to Look Out For

Dishes to look out for include **paella**, **bouillabaisse**, **gumbo** (a Tex Mex dish), **frito misto** (a mixed fried fish dish from the Mediterranean coast), **kedgeree** and **fruits de mer** (seafood). Oriental food tends to contain lots of different kinds of fish at once, and chopped pieces can be difficult to spot.

**Surimi** (a processed seafood) is usually made from white fish but may contain shellfish extract. Surimi can be present in processed foods such as pizza toppings.

**Anchovies** are normally found in **Caesar salad and Caesar salad dressing** and may also be present in **Worcestershire sauce**. **Patum Peperium (Gentleman's Relish)** and **Caponata**, a traditional sweet and sour Sicilian relish

Fish sauce, which can be made with shellfish as well as fish, is a common ingredient in the Far East. Terms to look out for are Nuoc Mam and Nam Pla. Check the ingredient lists on ready-made Oriental sauces, pastes and prepared meals. Check the ingredient lists of all food for unexpected ingredients.

The above list is not exhaustive. If you are not sure of any product, question catering staff or shop staff.

### **Iodine**

People with shellfish allergy are sometimes told to avoid iodine, an element present in items including shellfish, seaweed and cleaning products. It is possible to be allergic to iodine, but in fact iodine allergy is unrelated to shellfish allergy. The allergen present in shellfish is not iodine but muscle protein in the flesh of the shellfish.

### **Supplements and toiletries**

Although it is the flesh of shellfish that contains the allergen, people with shellfish allergy are advised to avoid shellfish shells and skeletons, because they may be contaminated by traces of shellfish allergen. Glucosamine, used in the treatment of arthritis, is derived from the skeletons of shellfish and is unsuitable for people with shellfish allergy. Chondroitin is a shellfish-free alternative. Chitin, derived from shellfish shells, is used in commercial "fat absorbers" such as Chitosan HD, and should also be avoided. Moisturisers can also contain shellfish-derived chitin. Some calcium supplements may contain ground oyster shells. It is unknown how much risk these pose but it is likely to be very small.

### **The Cod Worm**

Some people who think they are reacting to seafood are actually having an allergic reaction to a worm-like parasite called Anisakis (also known as the cod worm). This parasite, relatively common in Spain, can cause urticaria, gastrointestinal upset or even anaphylaxis when present in fresh cephalopods, hake, anchovy or cod. If you react to a particular fish on one occasion, but later eat it with no problem, you should consider the possibility that the cod worm was responsible. Speak to your doctor or health professional if you have any queries.

### **Non-allergic Reactions**

Adverse reactions to seafood are not always due to allergy.

- Histamine, sometimes present in spoiled fish (especially dark flesh fish, eg: tuna and mackerel), can cause a condition not unlike allergy called scombroid poisoning. Histamine is not destroyed by cooking and the fish would taste normal, but soon after eating it, the sufferer would develop flushing, wheeze, abdominal cramps and/or diarrhoea. Unlike an allergy, this would affect anyone who ate the offending food.
- Shellfish/fish sometimes absorb poison from toxic algae, which appear in the sea at certain times of year. This can cause syndromes known as amnesic, diarrhetic, paralytic and neurotoxic

shellfish poisoning. People with these syndromes react to the toxin, but are not allergic and can still eat shellfish safely afterwards.

Further details can be obtained by contacting:

#### **The Anaphylaxis Campaign**

PO Box 275  
Farnborough  
Hampshire  
GU14 6SX

Helpline: 01252 542029

Website: [www.anaphylaxis.org.uk](http://www.anaphylaxis.org.uk)

The information contained in this leaflet has been provided by the British Society for Allergy & Clinical Immunology. Every effort has been made to ensure at the time of printing, its contents are accurate. However this leaflet should be used in conjunction with advice from a medical professional.