



Brighton & Hove
City Council

Food Safety Information

A Good Practice Guide

Safe Production of Sushi, Sashimi and Other Raw Fish Products

What are Sushi & Sashimi?

Sushi refers to food consisting of cooked and pressed rice flavoured with vinegar and garnished with other food ingredients including raw or cooked vinegared seafood, marine fish or shellfish roe, vegetable, cooked meat or egg, which may or may not be wrapped in seaweed.

Sashimi is food consisting of fillets of marine fish, molluscs, crustaceans, fish roe or other seafood to be eaten in its raw state.

Other raw fish products may be served in speciality restaurants serving Scandinavian or South American food for example, where they may be cured or pickled.

This leaflet deals with only Sushi & Sashimi, but the same food hygiene principles apply.

Why do Sushi & Sashimi require a higher standard of hygienic production?

- Because they both contain raw food.
- As a result of the way they are prepared, there is no cooking process to kill any food poisoning bacteria or parasites present.
- Fresh and frozen raw seafood can contain food poisoning bacteria such as *Listeria* and *Salmonella*, and parasites which can cause tapeworm infections in Man, all of which can be transmitted to customers who eat these foods raw.
- None of this contamination can be seen, tasted or smelt, and the food may appear perfectly normal.

There are however simple yet effective food hygiene controls that businesses can implement to reduce the risk of Sushi & Sashimi transmitting these infections to customers. (Please continue over the page.)

What must I do to prepare Sushi & Sashimi safely?

- Buy good quality ingredients from reputable suppliers.
- You must ensure that visual inspections are undertaken of the fish to ensure that they are free of parasites. This should be done at delivery as well as during preparation. Remember however, that this is not 100% effective. Tapeworms and flukes may not always be visible.
- To kill any tapeworm larvae present, raw fish must be frozen so that it reaches at least -20°C for not less than 24 hours or -35°C for not less than 15 hours. **This is a legal requirement. (See more on this below.)**
- If there is no paperwork with the fish to show that the manufacturer/supplier has carried this out (or carried out an equivalent procedure to kill parasites), you must do it yourself. Please note that it is a legal requirement for records of processes, such as freezing, to follow the product consignment.
- After freezing, defrost in a chiller. The Food Hygiene (England) Regulations 2006 state that these products must not be stored above 8°C. However, it is good practice to store the fresh fish at or below 4°C.
- Store raw ingredients, other than those to be eaten in their raw state, separate from prepared or cooked food to avoid cross-contamination.
- Only defrost the fish in small amounts. Do not keep chilled ingredients for too long, and operate a stock control system based on the 'first in, first out' principle or individually date code your products with a preparation and use/dispose of date.
- Wash fresh fish, rice and vegetables before use.
- Wash hands thoroughly in soap and warm water immediately before preparation of Sushi or Sashimi, and observe a high standard of personal hygiene.
- Keep the food preparation area and food contact equipment clean and disinfected (using a food safe sanitiser, or dishwasher at above 82°C.)
- Cook any egg or meat used to above 75°C or to a point where you can easily tell visually that they are thoroughly cooked, and use only good quality ingredients.
- Once the Sushi rice is cooked, keep it above 63°C or chill down to below 8°C as soon as possible, unless using for immediate preparation.
- Minimise preparation time and store or display any prepared Sushi and Sashimi at or below 4°C, until it is served.
- Dispose of remaining prepared Sushi or Sashimi at the end of the day.

Note: The advice mentioned above to keep prepared Sushi and Sashimi below 4°C is for guidance. The Food Hygiene (England) Regulations 2006 specifically require food that can support the growth of pathogenic micro-organisms or the formation of toxins in a commercial operation to be kept at or below 8°C.

Although the above is true, it would be a defence for you, if you can prove that the Sushi/Sashimi kept for service or on display at a temperature above 8°C, but below 63°C, was for less than 2 hours if the rice is to be served warm, such as straight from the rice cooker/warmer; or for less than 4 hours if the product is served chilled, i.e. from the fridge.

*However, to use either the “2-hour” or “4-hour” rule as a defence against a failure to keep the food at or below 8°C, you will have to show that you have a system for monitoring the length of time each food has been out of temperature control for i.e. to prove that it was less than 2 hours for warm/hot food or less than 4 hours for chilled food. Such a system must be documented and stated clearly within your food safety management system.

SUSHI RICE - Important

It is recognised that mixing sushi rice with vinegar and salt seasoning will reduce the acidity of the mix, which in turn will help prevent the growth of bacteria and the formation of their toxins e.g. *Bacillus cereus*. This will enable it to be left out of temperature control for long periods, such as when making the sushi or sashimi. However, if you rely on this you must be able to ensure the following:

- As part of your food safety management system (HACCP), you must have written down your procedure for ensuring the precise amounts of vinegar/salt you are using in your solution.
- The acidity i.e. the pH of the rice and vinegar mix must be checked. This acidity will have to be low enough to inhibit bacterial growth, i.e. below pH4.5. pH meters can be purchased from specialist stores or on-line. The pH must be checked routinely and recorded or you must be able to show that it has been checked in some other way e.g. by using a bought in solution that has been tested by a manufacturer and following manufacturer’s instructions.

*If you are not able to standardise your vinegar/salt solution for the Sushi rice and/or you are not able to check the pH level to ensure that it is below pH4.5, you must not allow the rice to be out of temperature control for long periods of time. You are therefore advised to prepare only small amounts in advance, chill them down, store in the refrigerator and allow them to warm up to room temperature naturally just before service.

Using the correct solution of vinegar to reduce the pH of Sushi rice to pH4.5 or lower, should help to inhibit the growth of pathogenic bacteria such as *Bacillus Cereus*, which is commonly found in rice. However, you must still ensure that you protect the rice against physical and chemical contamination. Additionally, you must remember that it is only the Sushi rice that is mixed with the vinegar solution. **Any other food e.g. fish, meat or egg, added to the product, will not be protected and must not be left out at room temperature.

LEGAL REQUIREMENTS REGARDING FISH TO BE EATEN RAW OR ALMOST RAW e.g. Sushi, Sashimi or only lightly seared fish products

As already stated above, there are specific requirements concerning the control of parasites in fish where the fish is to be consumed raw. This is of particular relevance to suppliers and caterers dealing in Sushi or Sashimi. (Please continue over the page.)

The following fishery products **must** be frozen at a temperature of not more than -20°C in all parts of the product for no less than 24 hours or -35°C for not less than 15 hours. This treatment can be applied to the raw product or the finished product:

- (a) fishery products intended to be consumed raw; or
- (b) marinated, salted and any other treated fishery products, if the treatment is insufficient to kill the viable parasite;

If the fish has been frozen before arriving with your business, it must have with it documentation, showing what process it has undergone. This will identify for you whether the freezing process was sufficient to comply with the requirement above. If it is, you need not take any further action. If not, you must ensure that the fish is frozen to the levels stated above. You must keep this documentation easily retrievable as evidence. Ideally, it should be kept with the monitoring records for your food safety management system e.g. SFBB Diary.

You need not carry out the freezing treatment set out above, if: -

- (a) The fish are from wild catches, and provided that: -
 - (i) There are epidemiological data available indicating that the fishing grounds of origin do not present a health hazard with regard to the presence of parasites; and
 - (ii) The competent authority so authorises;
- (b) The fish are derived from fish farming, cultured from embryos and have been fed exclusively on a diet that cannot contain viable parasites that present a health hazard, and one of the following requirements is complied with: -
 - (i) The fish has been exclusively reared in an environment that is free from viable parasites; or
 - (ii) You are able to verify through procedures, approved by the competent authority, that the fishery products do not represent a health hazard with regard to the presence of viable parasites.

*Based on a recent study the Food Standards Agency (FSA) have declared an exemption for farmed and pellet fed Atlantic salmon.

These requirements are in accordance with **COMMISSION REGULATION (EU) No 1276/2011, which amends Annex III to Regulation (EC) No 853/2004.**

If you are in any way unsure of your legal requirement or want to know more, please contact your local Environmental Health Officer on 01273 292161.