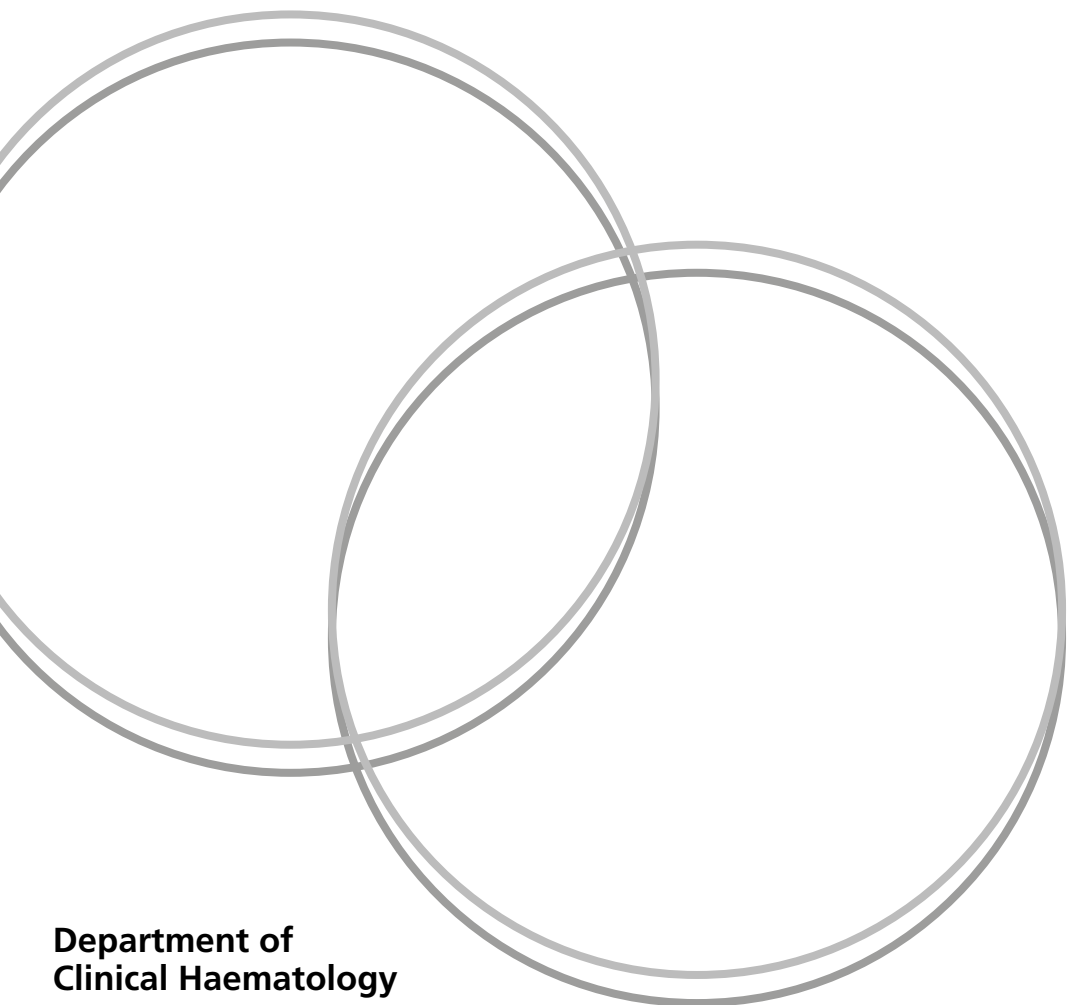


# **Food safety when you are less able to fight infection**

**Information for patients**



**Department of  
Clinical Haematology**

You will be at greater risk of infection from bacteria and fungus in food (food poisoning) after chemotherapy or stem cell transplantation. This is for the following reasons:

- The white bloods cells (neutrophils) that would normally fight food poisoning bacteria are at a low level. This is called neutropenia.
- The lining of the gut, which normally acts as a barrier between bacteria and the bloodstream, can be damaged by chemotherapy and radiotherapy. This makes it easier for bacteria to enter the bloodstream.

At these times it is important that you are careful about the foods you eat.

This leaflet gives information about good food hygiene techniques and foods that should be avoided when you are having chemotherapy or a stem cell transplant (see page 6).

# **Good food handling**

## **Shopping**

- Avoid buying food with damaged packages or tins.
- Buy chilled and frozen foods last in the supermarket, to reduce the time they are kept at warmer temperatures.
- Avoid chilled foods, such as cheese or cold meats, from the delicatessen or fresh food counter.
- Always check the use by dates and 'best before' dates.

## **Food storage**

- Keep your fridge temperature between 0°C and 5°C.
- Keep your freezer temperature below -18°C.
- Avoid overloading your fridge or freezer, as this can cause the temperature to increase
- Never re-freeze food once it has started to thaw.
- Keep food covered to avoid exposing it to bacteria.
- Keep raw and cooked foods separate. Store raw or defrosting meat at the bottom of the fridge in a covered container.
- Defrost food thoroughly in the fridge or in the microwave on defrost, rather than at room temperature.

## **Food preparation**

- Always wash your hands with warm water and soap before preparing and eating food.
- Wash your hands after going to the toilet, coughing or sneezing, touching pets and touching the rubbish bin.
- Use paper towels to dry your hands instead of a towel or tea towel.
- Keep pets away from food preparation areas.
- Make sure cloths and sponges are bleached, disinfected or changed straight away if used to wipe up raw meat juices.
- Avoid cross-contamination of food by washing chopping boards and utensils between uses for raw and cooked foods, and disinfecting kitchen surfaces.
- Disinfect kitchen surfaces after preparing raw meat.
- Keep your fridge, kitchen surfaces, sinks and taps clean.
- Wash fruit and vegetables before eating, even if bought pre-washed.

## **Cooking**

- Cook food thoroughly and make sure it is piping hot all the way through.
- Meat should be cooked until the juices run clear.
- Never remove cooked meat from the pan or grill using the same utensil that you used to put it in with when raw.
- Always follow the cooking instructions on packaged foods.

## **Reheating foods**

- Leftovers should only be eaten if cooled within one hour of cooking, then covered and stored in the fridge, or frozen.
- Do not put hot food in the fridge or freezer, as this will increase the temperature of the other foods already being stored.
- Use leftovers within 24 hours, and make sure they are heated until piping hot.
- Never reheat food more than once.
- Do not reheat rice and takeaway food as harmful bacteria can survive the heating process.
- For Ready Meals, follow the manufacturer's instructions and make sure the food is piping hot.

## **Eating Out**

Check the food hygiene rating of restaurants and takeaways if you wish to eat out.

**<https://ratings.food.gov.uk>**

## Foods to avoid when you are less able to fight infection

Some foods are more likely to cause food poisoning and should be avoided during your chemotherapy or stem cell transplant. You will be told by your medical team or by your Specialist Nurse when you no longer have to avoid these foods.

<p><b>Foods to avoid:</b></p> <p>All unpasteurised dairy products eg milk sold from local farms.</p>	<p><b>Suitable alternatives:</b></p> <p>Any pasteurised or UHT milk or milk alternatives, e.g. soya, rice, almond, oat.</p>
<p><b>Foods to avoid:</b></p> <p>Raw or undercooked eggs that are not British Lion stamped, e.g. homemade mayonnaise, mousses and ice creams.</p>	<p><b>Suitable alternatives:</b></p> <p>Partially or well-cooked British Lion eggs (eggs with a lion stamp on them)</p> <p>Eggs that are not British Lion, as long as the whites and yolks are cooked thoroughly until solid</p> <p>Shop-bought mayonnaise, mousses and ice cream made with pasteurised egg.</p>
<p><b>Foods to avoid:</b></p> <p>Mould-ripened cheeses, e.g. Brie, Camembert, Goat's cheese</p> <p>Blue veined cheeses, e.g. Gorgonzola</p> <p>Cheese made from unpasteurised milk, e.g. Parmesan, Feta.</p>	<p><b>Suitable alternatives:</b></p> <p>Processed cheeses made with pasteurised milk, e.g. Philadelphia, Dairyale</p> <p>Cottage cheese</p> <p>Vacuum packed hard cheeses made from pasteurised milk, e.g. Cheddar, Edam, Red Leicester</p> <p>Parmesan, Stilton and Feta made with pasteurised milk</p> <p>Thoroughly cooked, soft unpasteurized cheeses or soft blue cheeses until steaming hot.</p>

<b>Foods to avoid:</b> Raw or lightly cooked shellfish and seafood Sushi, sashimi, caviar and oysters Raw or lightly cooked fish	<b>Suitable alternatives:</b> Well-cooked shellfish, seafood and fish e.g. curry, fish pie. Tinned fish
<b>Foods to avoid:</b> Raw or undercooked meat and poultry Cold, smoked meats, e.g. Parma ham, salami	<b>Suitable alternatives:</b> Well-cooked meat and poultry Tinned meat Vacuum-packed cooked cold meat, e.g. ham, beef, turkey Cooked smoked meats e.g. pepperoni or salami pizza
<b>Foods to avoid:</b> Meat and fish paté	<b>Suitable alternatives:</b> Pasteurised paté in a jar and paste in jars which do not need refrigerating
<b>Foods to avoid:</b> Probiotic foods, drinks and supplements, e.g. Yakult, Kefir, Actimel, Symprove, Proviva, VSL#3 Probiotic yoghurts	<b>Suitable alternatives:</b> Any yoghurt not described as Probiotic, e.g. Live, Natural, Greek, fruit yoghurts
<b>Foods to avoid:</b> Indian and Chinese takeaways Food from takeaway vans	<b>Suitable alternatives:</b> Indian and Chinese ready meals Fish and chips Well-cooked pizza

## **Neutropenic diet**

Some Haematology Units may recommend following a neutropenic diet during your treatment. This involves avoiding foods like unpeeled fruit and vegetables, fresh nuts, black pepper, herbs and spices, in addition to the food listed in the previous table.

There is very little evidence to say that restricting your diet reduces your risk of infection. In Oxford, we have taken the decision as a Haematology Department to avoid this restrictive diet to help maintain your nutrition during treatment, which we know is extremely important.



## How to contact us

If you have any questions or concerns, or need further information, please contact us.

### **Dietetics Department**

Churchill Hospital

Tel: **01865 235 421**

(8.00am to 4.00pm, Monday to Friday)





## Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

Authors: Haematology Dietitians

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Oxford University Hospitals NHS Foundation Trust

[www.ouh.nhs.uk/information](http://www.ouh.nhs.uk/information)



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