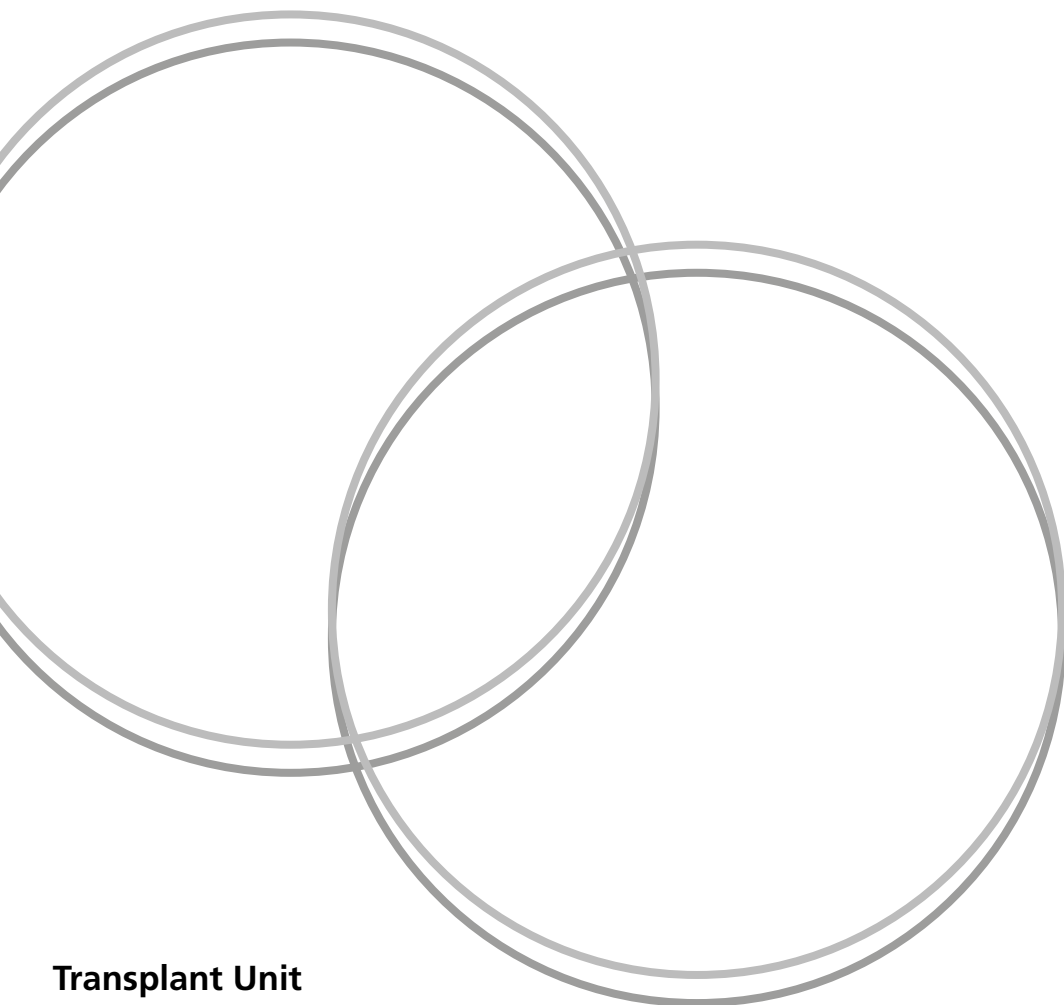


Eating safely after your kidney or pancreas transplant

Information for patients



If you have had a transplant and would like advice about eating safely, then this is the leaflet for you.

Why do I need to worry about eating safely after my transplant?

After a transplant you are at greater risk of getting food poisoning. Food poisoning usually causes vomiting and/or diarrhoea. You are more at risk because your immune system is weakened by the immunosuppression medication you are taking, so is less able to fight infection. It is important to avoid high risk foods that may carry harmful bacteria.

How long do I need to avoid high risk foods?

The food safety guidance in this leaflet should be followed for the first six months after your transplant. This is often when the dosage of your immunosuppressive medication may need altering.

After six months, you should continue to follow basic food safety, as you will still need to take immunosuppressant medication.

How can I reduce my risk of getting food poisoning?

Following the 4 C's can help reduce your risk:

1. Wash your hands properly and keep them **clean**.
2. **Cook** food properly.
3. **Chill** food properly.
4. Avoid **cross-contamination**.

Cleaning

- Wash your hands with soap and hot water and dry thoroughly with a clean towel. This should be done after going to the toilet, handling pets, before preparing or handling food and before eating.
- Keep worktops, chopping boards and utensils clean at all times.
- Use clean dish cloths and tea towels. Use a separate towel or kitchen paper to dry your hands.
- Avoid eating food that has been prepared by someone who has diarrhoea or vomiting.
- Make sure that open cuts or sores are covered before preparing and handling food.

Cooking

- Cooking food thoroughly kills harmful bacteria.
- Always cook meat and fish well. Juices from meat should run clear and have no visible pink flesh. Seafood should be cooked until the flesh is firm.
- Eat cooked foods within an hour of making. If there are leftovers, cool them within 1-2 hours and store in the fridge or freezer. Eat any left overs within 24-48 hours.
- If reheating foods, make sure they are served piping hot. Do not reheat more than once. Always follow the cooking or reheating instructions on the label.
- Do not eat food that is past its 'use-by' date and throw away any food that has expired.

Understanding 'use-by' dates

'Use by' dates appear on fresh foods that expire quickly. It can be dangerous to eat foods beyond this date.

Understanding 'best before' dates

'Best before' dates show how long food will remain at its best. It is advisable to use the product within a few days of this date, to reduce risk of foodborne illness.

Chilling

Chilling your food properly helps to stop harmful bacteria from growing.

- Keep refrigerators at the correct temperature (between 0-5°C).
- After shopping, put food that needs to be kept chilled in the fridge straight away. Cool bags are useful to keep foods cool during transportation.
- Avoid overloading home refrigerators or freezers, as the air needs to circulate to keep it cold.
- Do not re-freeze foods once thawed.

Avoiding cross-contamination

Cross-contamination is when bacteria spread between food, surfaces or equipment. It is most likely to happen when raw food touches (or drips onto) ready-to-eat food, equipment or surfaces. Cross-contamination is one of the most common causes of food poisoning.

To reduce the risk:

- Keep raw and ready-to-eat food separate during storage and preparation.
- Do not wash raw meat or poultry before cooking. Washing could splash potentially harmful germs onto work surfaces.
- Use different chopping boards and utensils when preparing raw meat, poultry and fish.

Food that is more harmful

Meat and poultry

Meat and poultry are generally safe to eat, providing they are cooked according to the manufacturer's instructions and served piping hot. However, the following foods are considered more high risk (harmful):

- rotisserie chickens
- deli-counter meat, fish and poultry
- raw meat, fish and poultry, such as steak tartare, sashimi
- all meat and vegetable pâté
- sausages and chicken at barbeques. Make sure they are cooked throughout.
- cold meats such as salami, Parma ham, chorizo and pepperoni. These are cured and fermented, rather than cooked. Only eat these foods if they are cooked until piping hot, such as on a pizza.

Safer meat options:

- Pre-packed meat, such as cooked ham or beef.
- Tinned pâté, but be aware it has a high salt content.

Fish and shellfish

- Purchase only pre-packaged fish, smoked fish and shellfish rather than fish off the fish counter.
- Smoked salmon and smoked trout may be eaten within 24 hours of opening the packet, if stored in the fridge.
- All shop and restaurant bought sushi is safe to eat.
- Avoid all raw fish and shellfish such as sashimi, oysters and caviar.

Eggs

These are safe to eat, providing they are thoroughly cooked with no runny yolks.

- Eggs (including duck and quail eggs) should be 'British Lion-stamped' which certifies them safe against salmonella. They should be stored in the fridge.
- Avoid eggs from outside the UK, or any eggs without the British Lion-stamp.
- Avoid using raw egg in any homemade sauces or desserts. Use pasteurised liquid egg instead.
- Avoid eating raw cookie dough or cake batter.

Fruit, vegetables and salad

If you are going to eat fruit and vegetables raw (such as in a salad or a smoothie/juice) wash thoroughly and peel if necessary.

Milk and dairy products

Milk should be pasteurised or ultra-heat treated (UHT).

Cheese

All cheese is safe to eat if cooked until piping hot or pasteurised. Hard cheeses are generally a safer option (pasteurised or unpasteurised), e.g. cheddar, red Leicester, edam, gouda, pecorino, parmesan.

The table below summarises the current recommendations.

Higher risk cheeses	Safer alternative
Cheeses on the deli counter	Vacuum packed cheese
All unpasteurised mould-ripened soft cheese (white rind) e.g. brie, camembert, soft goats cheese	Pasteurised soft cheese e.g. cottage cheese, cream cheese, mozzarella, ricotta feta, paneer, labneh, halloumi, hard goats' cheese, processed cheeses such as cheese spreads (e.g. Dairylea)
Blue-veined cheese e.g. Danish blue, gorgonzola, Roquefort	Cooked and uncooked Stilton Cooked blue-veined cheese
Dolcelatte	Pasteurised version
Homemade cheese e.g. labneh/paneer (unless pasteurised)	Shop-bought pasteurised version

Ice-cream

- All shop-bought ice-cream is safe to eat.
- Do not re-freeze ice cream that has melted.
- Avoid soft serve ice-cream from machines, such as Mr Whippy.

Yoghurt and starter cultures

- All yoghurt should be pasteurised and stored in the refrigerator.
- Avoid large 'sharing' pots and buy smaller pots and consume within the use by dates.
- Avoid homemade yogurts, such as kefir and home starter kits.

Yoghurts containing **prebiotics** (substances encouraging the growth of healthy bacteria within the gut) are safe to eat. These should not be confused with probiotic yogurts (see below).

Higher risk	Safer alternative
'Bio' or 'probiotic' yoghurt	Live, plain/natural yoghurt, lassi sour cream, Greek and fruit yogurts

Eating out and takeaways

It is best to avoid eating out or having takeaways for the first 6-8 weeks after your transplant.

Tips to enjoy eating out safely

- Make sure the restaurant/café/takeaway has a good food hygiene rating. The Food Standards Agency website: ratings.food.gov.uk
- Check the eating area is clean and tidy.
- Avoid all high-risk foods on the menu or ask if you are unsure.
- Try to order a plated meal that is cooked to order and make sure your meal is piping hot and thoroughly cooked when it arrives.
- Be wary of raw or undercooked egg in sauces, desserts and dressings, such as homemade mayonnaise, homemade ice-cream, chocolate mousse, meringue, hollandaise and béarnaise sauces.
- Avoid rice that has already been cooked and kept warm (often done by Chinese and Indian restaurants). Ask for it to be cooked fresh or choose potato, pasta, chips, chapatti or noodles.
- Buffets: try to be at the front of the queue and do not go back for more, as there is a risk the food may have been contaminated by other diners.

Foods that may interact with your medication

The following foods and herbal remedies may interact with your immunosuppressive medications, by reducing their ability to work properly.

- grapefruit and grapefruit juice
- pomelo and pomelo juice (a citrus fruit closely related to grapefruit)
- star fruit.

Avoid taking any 'alternative' medicines, such as herbal or homeopathic remedies, or high dose vitamins such as vitamin C.

If you have any concerns or queries, please discuss this further with your transplant doctor, nurse or pharmacist before taking any non-prescription medicines.

Do my previous dietary restrictions need to continue after I have had a kidney transplant?

Sometimes after your kidney transplant the new kidney is slow to wake up (known as delayed graft function). During this time it is sensible to continue the previous dietary restrictions you followed before you had your transplant.

Please continue to limit your salt intake, to help maintain a healthy blood pressure.

How much fluid am I allowed to drink?

Once you are passing normal volumes of urine it is important to drink plenty, to keep your kidney functioning. Aim to drink at least 2 litres (3 and a half pints) per day, or as advised by your kidney or transplant doctor.

Looking after your bones after your transplant

Following a transplant it is really important to include calcium, vitamin D and phosphate-rich foods in your diet, to keep your bones strong.

Phosphate

It is common for phosphate levels to decrease immediately after your kidney transplant starts working. You should now eat food high in phosphate to help replace this. Your transplant team will check your phosphate levels when you come to clinic.

Foods high in phosphate:

- lean meat and offal
- fish, especially those where soft, edible bones are eaten
- eggs
- milk, cheese, yoghurt
- malted milk drinks and drinking chocolate
- milk puddings, such as rice pudding.

Calcium and vitamin D

To meet your recommended calcium intake, aim to eat or drink 3-4 portions of calcium-rich foods per day. Eating foods rich in vitamin D helps your body to absorb calcium from food.

Foods high in calcium (per portion):

- 200mls milk – if choosing soya or rice milk choose those fortified with calcium
- 25g light malted milk powder in 200mls milk (this is 2 portions of calcium)
- 30g cheese
- 120g yoghurt
- 80g tofu
- 60-100g tinned fish with bones, e.g. sardines and pilchards
- 30g of fortified instant porridge or breakfast cereals.

Foods high in vitamin D:

- fortified margarine and low fat spread
- oily fish, such as mackerel
- fortified breakfast cereals
- eggs.

How to contact us

If you would like further information about anything in this leaflet, the renal dietitians will be available in the morning during your clinic appointment. Please ask the receptionist to let the dietitian know you would like to talk with them.

Renal Dietitians

Tel: 01865 225 061

(8.00am to 4.30pm, Monday to Friday)

(Please leave a message on the answerphone)

Useful websites

You may find the following websites helpful:

General food safety

Food Standards Agency

Website: www.food.gov.uk

Eating out

Food Standards Agency hygiene rating

Website: ratings.food.gov.uk

Food Hygiene Ratings

Website: www.scoresonthedoors.org.uk

Calcium fact sheet

British Dietetic Association

Website: www.bda.uk.com/foodfacts/Calcium.pdf

Oxford Kidney Unit

Useful information for patients and relatives.

Website: www.ouh.nhs.uk/oku

Oxford Transplant Centre

Useful information for patients and relatives.

Website: www.ouh.nhs.uk/services/departments/renal/transplant

The contents of this diet sheet represent the Renal Nutrition Group's best practice recommendations for reducing foodborne illness. The basic principles are based on the Food Standard Agency's Foodborne Disease Strategy 2010-2015.

If you need an interpreter or would like this information leaflet in another format, such as Easy Read, large print, Braille, audio, electronically or another language, please speak to the department where you are being seen. You will find their contact details on your appointment letter.

Making a difference across our hospitals

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OXFORD HOSPITALS CHARITY (REGISTERED CHARITY NUMBER 1175809)



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Oxford University Hospitals NHS Foundation Trust

www.ouh.nhs.uk/information

