

Department of Nutrition and Dietetics

Renal Disease: Eating well after a kidney transplant

This information should only be used by patients who have had a kidney transplant and should only be followed with supervision from a dietitian.

After a transplant

When your transplanted kidney starts to work properly you should eventually be able to return to a normal healthy diet, depending on your blood results. Dietary recommendations will change depending on what stage post-transplant you are. For the first six months particularly we advise following food safety advice due to you being on high levels of immunosuppressant drugs.

However, there may be a benefit of you continuing to follow this advice after the first six months, particularly if your immunosuppressant medication levels remain high. The second part to this information sheet covers the dietary advice after you have recovered completely from your transplant operation – after approximately 3-6months.

The First 3-6 Months

During this time you are recovering from an operation, and your body needs a good intake of protein, vitamins and minerals to help the healing process.

Aim to increase the variety of your diet.

- Have a protein food at least twice a day (meat and poultry, fish, eggs, dairy foods, pulses or vegetarian alternatives e.g. soya, Quorn or tofu) and try to have a pint of milk a day, which could be taken as yoghurt, custard, hot milky drinks etc.



Patient Information

- Phosphate levels often fall after a transplant. Milk, cheese and eggs will help improve levels. Other useful high phosphate and protein foods are oily fish such as sardines and mackerel (only if bones are eaten), all meat and fish, soya beans and black-eyed beans.
- Ensure you have a good intake of fresh fruit and vegetables. Aim for 5 portions of fruit and vegetables a day, (which can include up to one portion of fresh fruit juice a day).

N.B: Grapefruit and grapefruit juice should be avoided for two hours before or after taking Ciclosporin (Neoral), Tacrolimus (Prograf/Adoport) or Sirolimus medication.

Fluid

After your transplant the doctor will advise you on how much fluid you should drink in a day. It is often between 2 – 4 litres per day, which can be challenging if you were on a strict fluid restriction on dialysis.

Taking a variety of fluids, and having a drink every hour usually helps. Weight changes immediately post transplant are most likely to be fluid related.

Food safety

After a transplant it is essential to take anti rejection medication to help your body accept your new kidney e.g. Tacrolimus (Prograf/Adoport), Mycophenolate mofetil (MMF), Ciclosporin (Neoral) or Prednisolone. This can increase the risk of infection, including food poisoning. Good food hygiene is therefore essential. Extra care will need to be taken in the first few months, until your anti-rejection medication has been reduced (three to six months).

Common symptoms of food poisoning include stomach ache, fever, vomiting and diarrhoea. If you do get food poisoning take plenty of fluids and rest. You should not prepare or serve food for other people at this time and you should contact your transplant nurses/doctors to inform them that you are unwell. If these symptoms are severe or persistent please consult with your GP.

Tips to help you reduce the risk of infection from food and drinks:

Shopping/Storage of Foods

- Check 'Use by' dates. It is recommended to discard food past this date. Avoid buying foods with damaged or broken packaging.
- Do not buy from 'deli' counters/salad bars. Try to buy prepacked food instead.
- Take chilled and frozen foods home quickly and store as directed on labelling. Do not overload fridges/freezers as this may mean the food is not cold enough.
- Your fridge temperature should be between 0° and 5°. Open and defrosted foods should be kept in appropriate containers.
- Keep raw meat away from ready-to-eat foods such as salad, fruit and bread. Store raw meat at the bottom of the fridge.
- Left over foods need to be covered and stored in a fridge. Do not put hot foods into the fridge, cool at room temperature then chill within an hour. Take particular care with meat, poultry, fish and rice.
- Store eggs in the fridge in their box.

Food preparation

- Thoroughly wash and dry your hands with soapy water, before and after food preparation.
- Clean work surfaces with hot soapy water before and after preparing foods, especially after preparing raw meats, poultry and eggs. Keep pets away from food, dishes and worktops.
- Wash fruit and vegetables before eating or cooking.
- Use a different chopping board and knife when preparing raw meat and poultry.

Cooking

- Thorough cooking is very important because it kills harmful bacteria in foods. Follow instructions on packaging or from recipes to ensure foods are cooked properly.

Patient Information

- Frozen foods should be defrosted thoroughly before cooking. Never refreeze thawed food.
- Ensure food is piping hot throughout before serving. Meats should be cooked until the juices run clear. Never reheat foods more than once.

Eating out

- Avoid salad bars, buffets, carveries, market stalls, street outlets and takeaways.
- Choose freshly cooked food, served piping hot or properly cold.
- Take extra caution when abroad as food hygiene standards may be lower.

To obtain information on food hygiene standards of a facility check the food hygiene rating scheme: <http://ratings.food.gov.uk/>

Barbecues

- Be extra cautious at barbecues as the biggest risk of food poisoning is from raw and under cooked meat.
- Consider cooking food in the oven/microwave first.

High risk foods

1. Eggs

- Ensure you use Lion-stamped eggs, which are from chickens vaccinated against Salmonella.
- Avoid eating raw egg and uncooked foods made using raw egg, if source of egg is unknown, for example: homemade mayonnaise / hollandaise sauce, meringues, eggnog, soufflé and some mousses.
- Most packaged foods in the shops are made with pasteurised egg and should be safe to eat, for example mayonnaise in a jar, ice-cream from a freezer counter.

2. Fish and shellfish

- Do not eat raw or partially cooked fish and shellfish, including sushi.
- Well cooked fish or vacuum-packed / canned cold fish is fine for example: tuna, sardines, freshly cooked fish fingers, fish cakes or shellfish.
- Avoid caviar and oysters.

3. Milk and milk products

Should be avoided	Safer alternative
Unpasteurised soft cheese	<p>Unpasteurised soft cheese if cooked until piping hot.</p> <p>Pasteurised soft cheese (Check the label*)</p> <p>Cottage cheese, mozzarella, feta, cream cheese, ricotta, halloumi, hard goat's cheese, processed cheese slices and spreads such as Dairylea.</p> <p>All hard cheese such as Cheddar, Red Leicester, edam, gouda, stilton, pecorino, parmesan and Cheshire.</p>
<p>Mould-ripened (white rind) soft cheeses:</p> <p>Brie, camembert certain goats cheese e.g. chevre</p>	Mould-ripened cheeses if cooked until piping hot.
Blue vein cheeses (including blue cheese salad dressings), Danish blue, Roquefort and Gorgonzola	Blue-veined cheeses if cooked until piping hot.
Homemade cheeses e.g. labnah/paneer	Shop bought pasteurised versions.

Patient Information

Cheese containing chilli peppers or other uncooked vegetables	Hard cheeses without added ingredients.
---	---

* Do check the labels to ensure the cheese has been made with pasteurised milk as it can vary between different brands

- Do not use unpasteurised milk, yoghurt or cream.
- “Prebiotic”, “Probiotic”, “Live” or “Bio” yoghurts contain live bacteria and should be avoided for example: Actimel, Activia, Vitality, Yakult.
- Yoghurts are safe to eat as long as they are made with pasteurised milk, including natural yoghurt (most commercially produced yoghurts are).

4. Meat and meat alternatives

- Ensure meat and poultry is thoroughly cooked, that there is no pink meat visible and juices are clear. Avoid rare/undercooked meats such as: beef carpaccio.
- Avoid pâté (including vegetable versions).
- Avoid hot cooked meats from the supermarket e.g. rotisserie chicken.
- Avoid hard cured salami and Parma ham, and meats from the delicatessens.
- Avoid undercooked tofu e.g. Tempe products.

5. Water

- Water coolers can be a source of infection. Where possible, choose freshly run tap water or carbonated bottled water as an alternative.
- Tap water is recommended rather than bottled water.
- Ice made from tap water – after cleaning the ice cube tray thoroughly - and stored in the freezer is likely to be safer to use than ice from unknown sources.

Patient Information

- If you use a filter system at home, follow the manufacturer's guidelines on regular cleaning and filter change.
- Take advice if travelling abroad from the transplant team/doctor.

NHS Choices website www.nhs.uk has more information on food safety and food poisoning

After the First 3-6 Months

Once you have recovered from surgery the most important dietary advice is to ensure you eat a healthy diet and maintain a healthy weight. Excess weight gain should be avoided as this increases your risk of cardiovascular disease and diabetes.

It is common to gain weight after a kidney transplant for the following reasons:

- Steroids can lead to an increase in appetite.
- You are no longer on a restrictive diet.
- Food may taste better.
- You may feel better than you did on dialysis.

Healthy Eating

The Department of Health produces a guide to healthy eating. This can be seen as the Eatwell plate which shows at a glance the proportion of different food groups that should be present in the diet.

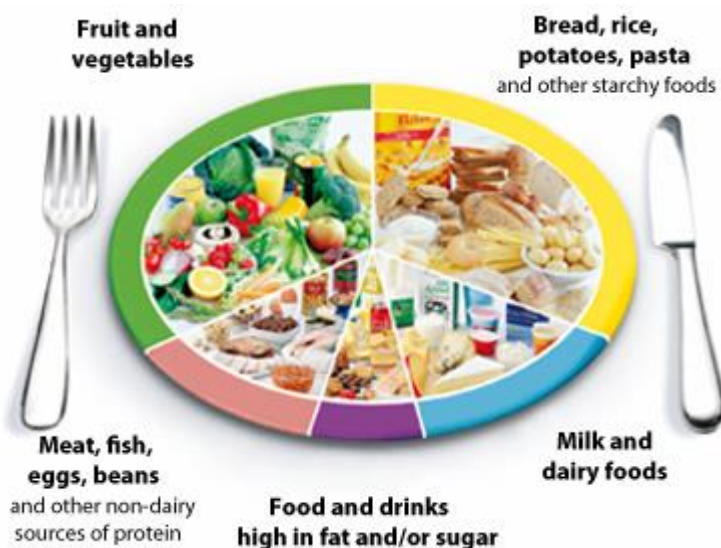


Figure 1 Eatwell Plate

Patient Information

The Eatwell Plate shows that most of what we eat should be fruit and vegetables, and starch-based foods such as bread, rice, chapattis, potatoes and pasta. The remainder of what you eat should consist of protein foods and dairy foods and a very small amount of foods high in fat and/or sugar.

Sometimes we get the balance wrong and have too much of the sugars and fats! For more information go to

<http://www.nhs.uk/Livewell/Goodfood/Pages/eatwell-plate.aspx>

Other tips on a healthy diet

- Eat a wide variety of fruit and vegetables – aim to have five portions a day.
- Reduce your salt intake.
- Aim to have a low fat intake especially animal fat.
- Have fried food only occasionally, and use a monounsaturated oil to fry in such as olive or rapeseed oil (pure vegetable oil).
- Use semi-skimmed or skimmed milk and where possible choose low fat varieties of margarine, cheese, yoghurt etc.
- Choose lean cuts of meat, and have chicken without skin.
- Choose fruit as a snack in preference to sweets, chocolate, biscuits, crisps or nuts.
- Aim to eat oily fish twice a week, try pilchards, sardines, mackerel, kippers, salmon and herring. Have white fish once per week as well.

More information on healthy eating is available from your dietitian.

Bone disease and calcium

To prevent the risk of osteoporosis try to ensure there is enough calcium in your diet. We recommend 4 portions of calcium rich foods per day.

1 calcium portion (200-250mg) =

- 30g cheese
- 200ml glass of milk

Patient Information

- 150g/ml-pot of yogurt
- 1/4 tin sardines (50g) – including bones
- 200ml serving of milk pudding (E.g. Rice/Tapioca)
- 125g raw spring greens/spinach (300g if boiled)
- 100g slice pizza
- 400g Tin Baked Beans

Vitamin D is needed to absorb calcium. It is found in oily fish, margarines and breakfast cereals.

Main source of Vitamin D is made by the body through the action of sunlight on the skin.

The dietitian can advise on further calcium sources if required.

Exercise

Before commencing exercise check with a member of the transplant team.

Exercise has been shown to be beneficial in transplant patients and will help you to increase your strength, feel better, and help you maintain a healthy weight. Exercise also helps to decrease the risk of cardiovascular disease and in the prevention of osteoporosis.

Even a small increase in exercise will be beneficial. You could try:

- Walking
- Swimming
- Cycling or exercise bike
- We recommend 30 minutes, 3 - 5 times a week.

Build up exercise slowly, e.g. no more than half a mile walking at a time. If you develop chest or leg pain, shortness of breath, or if you feel unwell **stop and rest.**

Refer to your Patient Information pack for more detailed advice on exercise.

Further reviews by the Dietitian

Please do not hesitate to contact us directly or through a member of the transplant team if you have any more questions in relation to diet and your transplant. In particular we can provide support on the following:

- Advice on a weight reducing diet and help in achieving weight loss goals.
- Advice on a cholesterol lowering diet.
- Information and support for anyone diagnosed with diabetes.
- Advice on ways to achieve weight gain or improve the nutritional adequacy of your diet.

Supplementation

If you eat a well balanced diet there is probably no need for a supplement unless advised by your dietitian or doctor. We would not recommend taking supplements containing vitamin A or E since if not monitored these can be harmful with kidney disease.

Most multivitamin preparations contain vitamins A and E. If you wish to take a multivitamin or mineral preparation, the most suitable types are those produced for pregnancy or patients with kidney disease. **Please check with your dietitian.**

Protein supplements e.g. "Protein shakes" or "Protein powders" are not recommended.

Warning - Star fruit contains a chemical which can be extremely dangerous to people with kidney problems. These should be avoided.

Produced by Coventry Renal Dietitians, University Hospitals Coventry & Warwickshire NHS Trust

Contact number: 024 7696 6151

Patient Information

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact us on 024 7696 6151 and we will do our best to meet your needs.

The Trust operates a smoke free policy.

Document History	
Department:	Dietetics
Contact:	02476966151
Updated:	October 2020
Review:	October 2022
Version:	6.1
Reference:	HIC/LFT/503/07