Department of Nutrition and Dietetics

Dietary advice following a kidney/kidney-pancreas transplant

One of the benefits of a successful kidney transplant is that you can enjoy a more varied diet.

**Potassium**
Successful transplants should mean that your previous potassium restriction is relaxed. Your dietitian and doctor can further advise you about how to reintroduce high potassium foods, such as bananas, coffee, nuts and chocolate. When you have been advised you can reintroduce potassium containing foods be sure to do this gradually ie one new item a day not everything all at once.

**Phosphate**
Phosphate binders are stopped after a kidney transplant and you should no longer need to follow a phosphate restriction.

**Salt**
Continuing to follow a no added salt diet is recommended to help prevent high blood pressure. Avoid adding salt when cooking or at the table, instead you could try using pepper, herbs, spices, lemon juice, vinegar etc which will not affect your blood pressure.

**Calcium**
Long term steroid use can weaken your bones and increase the risk of fractures. Sufficient calcium intake may help prevent this. Good sources of calcium include milk, cheese, yoghurts, tofu, calcium-enriched soya products (choose lower fat options if you are conscious of your weight). You should aim for 3-4 portions a day. A portion is 125g yoghurt, 25g cheese (small matchbox size), 75g cottage cheese, 200mls milk.

**Grapefruit, Pomegranate, Seville oranges**
After transplant you should avoid eating grapefruit/pomegranate/Seville oranges or drinking the juice of these fruit because they interfere with the levels of the anti-rejection medication. You should also check things which may contain grapefruit/pomegranate/Seville oranges such as mixed fruit juices. This includes pink grapefruits and star fruit.
Food hygiene advice post-transplant

After your kidney transplant you will have to take immunosuppressive medication, for example, Tacrolimus, Cyclosporin, Mycophenolate Mofetil or Azathioprine. These reduce the activity of your immune system to help prevent your new kidney from being rejected. Your immune system protects your body by fighting infections.

When the level of your immune function is reduced, you will be more likely to catch infections. There is a risk of catching a food borne infection such as Listeria or Salmonella or E.Coli. You may not realise you have Listeria as some people have no symptoms. Others develop mild flu-like symptoms such as headache, temperature, sore throat and diarrhoea. More serious complications, for example vomiting, can occur if the Listeria infection develops further within your body.

Vomiting can mean you at higher risk of rejecting the graft due to an inability to take or keep down the immunosuppressant medication, reducing the concentration of the medication in the blood. In rare circumstances, and where you are not able to fight the infection, the medical team may choose to lower the dose of immunosuppressant medication sooner than planned, which also places you at a higher risk of rejection. If you follow the advice below, you will reduce the risk of getting a food borne infection.

Some guidelines to help reduce your risk of infection from food and drinks:

Shopping
- Only eat food that is still within its use-by or best-before date.
- Purchase meat and fish from clean counters.
- Once purchased, put fresh foods into the fridge or freezer as soon as possible.

Preparation
- Keep pets out of the kitchen.
- Wash hands and protect cuts and wounds before handling food.
- Wash and dry utensils, (for example knives) and work surfaces (for example chopping boards) between preparation of raw and cooked food to avoid cross-contamination. Ideally separate chopping boards.
- Wash all fruit and vegetables before preparation.

Cooking
- Thaw meat, fish and poultry in the fridge, not at room temperature.
- Cook meat, fish and poultry thoroughly.
- When reheating food, ensure it is piping hot.
- Never reheat food more than once. It is advised not to re-heat rice at all.
- When using a microwave, follow the cooking and standing times and know the power rating.
**Storage**
- Regularly check the fridge/freezer temperatures. Ensure the fridge is 5°C or lower and freezer -18°C or lower.
- Never refreeze thawed food.
- Cover all foods in the fridge.
- Store raw and cooked foods separately. Keep cooked food above raw in the fridge.

**Eating out and going abroad**
- When eating out or having a takeaway, ensure food is fresh and well cooked.
- Buffets should be avoided and Care should be taken with BBQ/rotisserie style cooking methods as there is a higher risk uneven cooking.
- Avoid high risk foods and choose eateries that display a rating of 5 on the food hygiene scale.
- Take extra care when abroad as food hygiene standards may be poorer. Try to use only reputable restaurants/eateries, avoid food sold on streets or markets.

**Specific foods and drinks to avoid, to help reduce your risk of food borne infections**

The attached list of foods should be avoided by all transplant patients to minimize the risk of Listeria or Salmonella infection.

<table>
<thead>
<tr>
<th>Types of food to avoid</th>
<th>Alternative choices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Milk</strong></td>
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<tr>
<td>Unpasteurised milk e.g. milk sold on local farms</td>
<td>Pasteurised milk, tinned milks UHT, dried milk</td>
</tr>
<tr>
<td><strong>Yoghurts</strong></td>
<td></td>
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<tr>
<td>Unpasteurised yoghurts</td>
<td>Pasteurised yoghurts</td>
</tr>
<tr>
<td>Yoghurt which is described on the label as bio or probiotic or ‘bio’ drinks or supplements e.g. Yakult, Actimel</td>
<td>Any yoghurt that does not describe itself as bio or probiotic - Live, plain, Greek and fruit yoghurts are suitable</td>
</tr>
<tr>
<td><strong>Cheeses</strong></td>
<td></td>
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<tr>
<td>Blue-veined and soft mould-ripened cheeses such as Brie, Camembert, Dolcelatte, Roquefort, Feta, Cambozola, Stilton, Danish blue</td>
<td>Hard cheeses such as Cheddar, Red Leicester and Edam (cut off any visible rind)</td>
</tr>
<tr>
<td>Soft sheep and goats cheeses</td>
<td>Processed cheese, for example Philadelphia, Dairylea, Kraft, Cottage cheese</td>
</tr>
<tr>
<td>Soft cheeses made with unpasteurised milk e.g. feta</td>
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<tr>
<td><strong>Eggs</strong></td>
<td></td>
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<tr>
<td>Raw eggs or undercooked eggs</td>
<td>Hard boiled eggs, Well cooked scrambled egg</td>
</tr>
<tr>
<td>Dishes containing raw egg, such as homemade mayonnaise, mousse hollandaise sauce, egg nog</td>
<td>Well cooked omelette</td>
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<tr>
<td></td>
<td>Shop bought mayonnaise</td>
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</tbody>
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Dietary advice following a kidney transplant

Innovation and excellence in health and care

Addenbrooke’s Hospital l Rosie Hospital
### Patient Information

<table>
<thead>
<tr>
<th>Fish</th>
<th>Well cooked fresh, frozen, tinned fish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw fish such as sushi</td>
<td></td>
</tr>
<tr>
<td>Raw or lightly cooked shellfish</td>
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<tr>
<td>Raw oysters, caviar</td>
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<tr>
<td>Avoid smoked salmon unless eaten directly from a freshly opened packet</td>
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<tr>
<td></td>
<td>Well cooked shellfish e.g. prawn curry</td>
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<table>
<thead>
<tr>
<th>Meat</th>
<th>Well cooked fresh, frozen, tinned meat</th>
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<tbody>
<tr>
<td>Raw or undercooked meats, including rare meats for example steak tartare</td>
<td></td>
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<tr>
<td>Pate</td>
<td></td>
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<tr>
<td>Smoked meat e.g. salami</td>
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<tr>
<td></td>
<td>Tinned or bottled pate/paste</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Fruits &amp; Veg</th>
<th>Washed fresh fruit</th>
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<tbody>
<tr>
<td>Unwashed Fruit</td>
<td></td>
</tr>
<tr>
<td>Unwashed Vegetables</td>
<td></td>
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<tr>
<td>Shop bought salads such as coleslaw, potato salad</td>
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<tr>
<td>Raw spouted seeds, e.g bean sprouts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tinned, dried and stewed fruit</td>
</tr>
<tr>
<td></td>
<td>Cooked fresh, frozen, tinned vegetables. Washed salad items</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ice cream</th>
<th>Hard or individual ice-creams - serve and eat asap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soft ice-cream for example Mr Whippy, McFlurry</td>
<td></td>
</tr>
<tr>
<td>Homemade ice-cream</td>
<td></td>
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</tbody>
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**Remember looking after your food is part of looking after your health.**

### Weight gain

In the first few weeks weight gain is likely to be because of fluid retention after the transplant operation. However in the long term many patients gain weight after their kidney transplant. This can be caused by:

- Steroids, for example Prednisolone, which increase your appetite and make you eat more.
- Relaxation of dietary restrictions enables you to eat more freely, which can cause weight gain.
- Reduced activity immediately after transplant can promote unwanted weight gain.

If you are concerned about your weight, please ask to be referred to the dietitian in the renal transplant clinic.

### Body Mass Index (BMI)

Your BMI indicates whether you are a healthy weight for your height. To work out your BMI, use the following formula:  

\[
BMI = \frac{weight \, (kg)}{Height^2 \, (m)}
\]
Maintaining a healthy weight reduces the risk of developing new onset diabetes after transplant (NODAT). The anti-rejection medication may cause your blood sugars to rise; often this is temporary but may become permanent leading to diabetes.

**Healthy balanced lifestyle**

A healthy, balanced diet combined with exercise will help prevent unwanted weight gain or help with weight loss, helping to keep you fit and healthy.

### Fruit and vegetables

As your potassium restrictions are relaxed you will be able to enjoy a wider variety of fruits and vegetables in your diet. They are naturally low in fat and high in fibre so can help fill you up and prevent snacking on other high fat/high sugar foods. Try to include a variety of different coloured fruits and vegetables and aim for five portions per day.
Fat
There are two main types of fat; saturated and unsaturated:
- Saturated: animal fats such as fat in milk, cheese, cream, fat on meat.
- Unsaturated: There are two types of unsaturated:
  - Monounsaturated, for example olive oil.
  - Polyunsaturated fats such as sunflower oil, Omega 3 fish oils.

Saturated and unsaturated fats contain the same amount of calories (energy). Therefore only use small amounts of fat in your diet. Saturated fats can increase your cholesterol levels, which may increase your risk of heart disease and stroke. Unsaturated fats will not increase your cholesterol levels and so should be used in place of saturated fats wherever possible.

Tips
- Trim the fat off meat.
- Grill, bake or steam foods and avoid frying.
- Choose unsaturated fat spreads such as olive oil spreads instead of butter.
- Choose semi-skimmed milk or reduced fat dairy produce.

Sugar
Sugar provides energy, which if not used, will be converted into fat and stored in the body. If you are conscious of your weight, choose low calorie and sugar-free drinks and try to avoid sugary snacks. Go for high fibre options instead, for example fruit, teacake or toast.

Contact details
If you have any queries, please do not hesitate to contact your dietitian.

Department of Nutrition and Dietetics
- Telephone: 01223 216655 Or via Addenbrooke’s switchboard: 01223 245151 and then extension 2655.
- Fax: 01223 216824

Your renal transplant Dietitian
We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site. For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

Other formats:

If you would like this information in another language, large print or audio, please ask the department where you are being treated, to contact the patient information team: patient.information@addenbrookes.nhs.uk.

Please note: We do not currently hold many leaflets in other languages; written translation requests are funded and agreed by the department who has authored the leaflet.

Document history

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