

Kidney disease: dietary advice when you are on haemodialysis

Renal Dietetics

Information for Patients

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Introduction

When your kidneys do not work properly, haemodialysis helps to remove excess fluid and waste products such as urea, potassium and phosphate that can build up in your body. Having a healthy, well balanced diet alongside haemodialysis treatment will help to keep you feeling fit and well.

This leaflet will help guide you through foods that are important for you. This information sheet is suitable for all patients on haemodialysis. You may be given more information depending on your individual circumstances by your dietitian.

Protein:

- Foods which contain protein are important for people who have dialysis treatment.
- Aim to eat 2 portions of high protein foods each day.

Salt:

- Limit your salt intake to help control your blood pressure and prevent excessive thirst.

Fluid:

- Manage your fluid intake to help reduce build-up of excess fluid in your body.

Potassium and phosphate:

- You will be assessed individually. You may need extra information about these. Your dietitian can advise on this.

For your general health:

- Base your meals around starchy food including high fibre options where possible.
- If you can, use fresh foods more than processed foods. Processed foods will contain more added salt and food additives. These are not good for people with kidney disease.
- Aim to achieve and maintain a healthy body weight.

**Health information and support is available at www.nhs.uk
or call 111 for non-emergency medical advice**

Visit www.leicestershospitals.nhs.uk for maps and information about visiting Leicester's Hospitals
To give feedback about this information sheet, contact InformationForPatients@uhl-tr.nhs.uk

Protein

Protein is a key part of your diet to help build and repair body tissue. It is vital that you have enough in your diet. Protein should be eaten every day. During haemodialysis treatment, some protein is lost from the body. It is important to eat enough of the main protein sources to help balance the loss of protein from dialysis. These include:

Animal types	Example portion size	Vegetarian types	Example portion size
Meat	A deck of cards (100g)	Pulses for example peas, beans, dahl	3x heaped tbsp.*
Poultry	A deck of cards (100g)	Quorn mince	14 to 15 tbsp. (150g)
Fish	Palm of hand (150g)	Quorn chunks	17 to 18 tbsp. (150g)
Eggs	2x medium	Tofu	Palm of hand (150g)

*Tbsp = tablespoon

Have 2 portions of protein (animal or vegetarian) each day.

Some high protein foods such as milk, yoghurt and cheese may need to be limited as they are also a high source of phosphate. Your dietitian will advise you on how much of these foods you should have depending on your circumstance:

Milk and dairy foods	Daily / weekly allowance
Milk / soya milk	
Yoghurt	
Cheese / paneer / vegetarian cheese	

If you have taste changes or have 'gone off' meat or protein foods please contact your dietitian for further advice.

Salt

We should all be trying to reduce our intake of salt and salty foods but it is very important for those having dialysis treatment. Too much salt in your diet may raise your blood pressure. Salt can make you thirsty, which is unhelpful if you are trying to manage your fluid intake. Around 75% of the salt we eat comes from manufactured/ processed foods. Aim to use fresh foods more than processed foods as this will reduce the amount of salt within the foods you eat.

The table below lists some common foods which are high in salt.

Cheese	Prawns
Chinese meals	Ready meals including pizza
Crumpets	Salt fish
Foods tinned in brine such as vegetables or fish	Shop bought sandwiches
Gravy granules and stock cubes	Snack foods: crisps, corn snacks, salted nuts, Indian savouries such as sev, gathia, Bombay mix
Processed meat products: for example sausages, bacon, salami, ham, tinned meats, chicken nuggets	Soup – tinned and fresh
Meat and vegetable extract	Soy sauce
Pickle / chutney	Tomato ketchup, mayonnaise and other sauces

Aim to reduce your intake of foods which are high in salt. Try to choose more fresh/ frozen unprocessed foods such as:

- Fresh/ frozen/ tinned fruit and fresh/ frozen vegetables (in unsalted water).
- Fresh meat, poultry, fish, eggs or pulses.

Try to avoid adding salt to your food. If you do use salt, try to reduce the amount of salt you use gradually. Give yourself time to adjust and you will get used to the new flavours.

- Try to get out of the habit of adding salt at the table.
- Flavour your food with herbs and spices instead of salt.
- Use garlic, pepper and mustard in cooking.
- Use less salt/ stock cubes in cooking.

How much salt is in our food?

Look at labels on food packaging. Using the table below you will be able to see which foods are low, medium or high in salt. Colour coding can also be a quick way to check this.

Salt content:

Low (green)	Medium (Amber)	High (Red)
Less than 0.3g / 100g food	0.3 - 1.5g / 100g food	More than 1.5g / 100g food

(Action on salt)

Try to limit the number of foods coded as red. Aim to eat mainly foods that are coded green and amber.

Adults should aim to have less than **6g of salt a day**.

You can work out how much salt is in your food by reading the labels. Salt is often labelled / 100g so check the weight of your portion to make sure you use the information correctly.

Salt is made up of 2 parts, sodium and chloride. Food manufacturers are using salt substitutes which contain potassium chloride, either alone or mixed with regular salt (sodium chloride). These low sodium, high potassium salt substitutes will raise the potassium content of the product.

Check ingredient labels and look for "potassium chloride", especially in products that state "reduced salt".

Potassium chloride will make the food product higher in potassium.

Important note: salt substitutes such as LoSalt and Selora are available but should not be used as they are high in potassium.

For more information and ideas on reducing salt intake visit:

- www.kidneycareuk.org
- www.actiononsalt.org.uk/

Fluid

Most people who have haemodialysis will need to manage the amount of fluid they have (drinks and 'wet' foods). Wet foods are described as foods that are liquid at room temperature, for example, ice cream. The amount of fluid you will be recommended to have will depend on how much you pee (urinate).

When you first start dialysis you may still be passing normal amounts of pee. This will allow you to be able to drink a reasonable amount of fluid. However, most people find that the amount they pee gets less and less to the point where some people do not pee at all. If the amount of fluid taken in becomes more than the amount of pee that is made, then fluid will build up in your body.

During dialysis treatment, fluid can be removed from the body. However, it is better for you if there is not too much fluid build-up between dialysis treatments. Too much fluid in your body is called fluid overload. This may have no symptoms at all or it may show itself by making your ankles swell and can cause you difficulty in breathing.

It is usually seen when you come for dialysis by sudden changes in weight. Fluid overload is not good for your heart as it will have to work much harder to deal with the extra fluid.

As a general rule, if your weight increases between 1.5 to 2.5kg between dialysis treatments, then you are taking in the right amount of fluid.

(Note: the lower target is for those who have a low body weight and the higher target is for those with a higher body weight).

Useful measures:

These can help you to "add up" how much you are drinking:

Tea cup	180ml	Disposable plastic cup	150ml
Mug	200ml	Table spoon	15ml
½ pint glass	285ml	Dessert spoon	10ml
Can of fizzy drink	330ml	Small ice cube	15ml

Managing your fluid intake

As well as drinks, remember to count fluid in foods like: gravy, sauces, yoghurts, milk puddings and ice lollies.

1. Estimate the fluid content from the weight. For puddings and yoghurts, the fluid content = 1/2 the actual weight/volume.
For example, 200ml (approx. 1/3pt) of custard should be seen as 100ml of fluid.
2. Daily milk allowance should be counted as part of your fluid intake.
3. If you are taking oral nutritional supplement drinks (ONS), these should be counted in your fluid allowance.
4. Remember to include the amount of fluid that you use to take your medications as part of your fluid intake.

The fluid in fruit and vegetables does not need to be included as part of your fluid allowance. You do not need to count the fluid absorbed when rehydrating foods such as rice or pasta.

Managing thirst

You may find that, at times, you feel particularly thirsty making it hard for you to keep to your fluid allowance. Try the following ideas to help you overcome this:

1. Use a smaller cup, or use an ice cube in place of a drink.
2. Sip drinks more slowly and spread out your fluid allowance over the day.
3. You can stimulate saliva and stop your mouth feeling dry by sucking a slice of lemon or lime, sugar free mints or boiled sweets and/ or chewing sugar free gum .
4. Stay cool by wearing looser fitted clothing and avoid overheating
5. Limit your intake of salt/ very spicy foods. This will help to reduce your thirst.
6. Try to suck small ice cubes if you are thirsty (count each ice cube as 20ml). These can be flavoured with squash if you like.

The dialysis nurse, dietitian or doctor will be able to help you work out how much your fluid intake should be to avoid problems with fluid overload.

Potassium and phosphate

Potassium:

You may have been told in the past to lower your potassium intake. It is common for potassium levels in the blood to rise when your kidney function gets worse.

High levels of potassium in your blood can cause an abnormal heart rhythm. Although potassium levels tend to improve when you first start dialysis (because some is being removed), it often rises again soon after.

Phosphate:

You may have been told in the past to lower your phosphate intake. It is common for phosphate levels in the blood to rise when your kidney function gets worse.

High phosphate levels in the blood can:

- Cause hardening of your blood vessels. This increases the risk of heart disease and strokes.
- Cause calcium deposits (like chalk) in the skin and other parts of your body.
- Affect your bones, making them ache and become brittle.

As well as changes to your diet, you may also be prescribed some tablets known as phosphate binders. There are many different options available. These are listed below. Your doctor or dietitian can talk about these with you.

Name of phosphate binder
Calcium carbonate (Adcal, Calcichew)
Calcium acetate (Phosex, Renacet)
Sevelamer hydrochloride/carbonate (Renvela, Renagel)
Lanthanum carbonate (Fosrenol)
Sucroferric oxyhydroxide (Velphoro)
Calcium acetate and magnesium carbonate (Osvaren)

These tablets work by binding with phosphate in food to reduce the amount of phosphate that can be absorbed from it by the body.

As a general rule, they should be taken with food (either just before or with the food) **except for lanthanum**. This should be taken **immediately after** food.

Check the label on your medicine for advice on how to take the phosphate binder you have been prescribed. You will need to either chew the tablet or swallow it whole.

If you are not eating then you do not need to take a phosphate binder as it will not work. The dietitian can advise you on how you can match your tablets with your food to get the most benefit from them.

More information about reducing your potassium and phosphate intake is available. Discuss this with the dietitian if your potassium or phosphate levels are high.

For your general health

Starchy foods and fibre:

Starchy foods are 1 of the main sources of energy in the diet. You should try to include at least 1 of the following starchy foods at each meal: **Potato, pasta, bread, cereal, rice, chapatti.**

- Choose wholemeal and wholegrain varieties for good sources of fibre.
- Fruit, vegetables and pulses (peas, beans, lentils and dahl) are also good sources of fibre.
- Where possible, it is advisable to eat fibre-rich choices as this can help prevent constipation. Constipation can increase your blood potassium levels . Ask your dietitian if you need more information on fibre.

Fruits and vegetables:

Unless told otherwise eat a good variety of fruit and vegetables. You may need to be careful with certain fruit and vegetables as they are a high source of potassium.

The dietitian can advise further on suitable alternatives

It is recommended that all patients with kidney problems avoid star fruit as it may cause harmful effects.

Vitamins and minerals:

If you eat a varied diet it is unlikely that you will need extra vitamins. However, if you are worried then please talk to your dietitian. Water soluble vitamins are lost during dialysis and depending on your dietary intake it may be useful to take a supplement. **Check with your doctor or dietitian before you consider taking health food supplements as some are not suitable.**

Maintaining a healthy body weight:

Many people notice that their appetite improves once they start on dialysis and find that their body weight starts to rise. For some this is a welcome sign that they are eating better and regaining weight that was lost before. However, others find this weight gain can make them become heavier than they were before and this may be unwanted for their health. If you find your weight is rising and is becoming a concern to you, the dietitian can help you with this.

Poor appetite:

Some people find that their appetite is not very good. To help keep you fit and healthy it is important that you eat enough food. If poor appetite is left unchecked you may not get enough important nutrients.

Your dietitian can help advise you on ways to increase your calorie and protein intake to suit your personal likes and dislikes.

You may find it easier to eat small, regular meals and snacks throughout the day.

You may be advised to take prescribed supplements if

- your appetite has decreased or you are eating less
- your weight is falling without reason.

If you are worried that you are not eating enough do not hesitate to contact your dietitian.

Where can I find more information?

Kidney Care UK: www.kidneycareuk.org

Kidney Kitchen: www.kidneycareuk.org/about-kidney-health/living-kidney-disease/kidney-kitchen/

You can also access your blood results via Patient knows best by registering here:
my.patientsknowbest.com/

Feedback

We aim to make sure that our dietary information sheets are up to date, relevant and easy to follow. We welcome comments and feedback on our dietary information sheets so speak with your dietitian or contact us by writing to:

Renal Dietitians office
Leicester General Hospital
Gwendolen Road
Leicester
LE5 4PW

Contact details

If you have any questions or concerns about your diet, please contact your renal dietitian (Monday to Friday 9am to 4pm). If you are calling outside of these times, please leave a message and we will call you back.

Contact number for Leicester Renal dietitians: 0116 258 8002

If you are under the care of a Renal dietitian outside of Leicester, please contact your local service.

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