

Department of Nutrition and Dietetics

Renal Disease: A guide to diet

Why Diet is Important?

A healthy diet is important for everyone, especially if you have kidney disease. Making careful food choices are an important part of managing your kidney disease and can help to:

- Control blood pressure
- Maintain safe levels of waste products in the blood
- Reduce symptoms such as nausea & itching
- To help prevent weight loss if you have a poor appetite
- Control long term issues such as bone and heart disease
- Improve diabetic control
- To help achieve weight loss if required

Does everyone with kidney disease need to follow a ‘kidney diet’?

No, there is no standard ‘kidney diet’. Any dietary advice depends on your blood results, appetite, medications and stage of kidney disease. Your dietitian will advise on any dietary changes you may need during your diet review. If you would like to be referred to a renal dietitian please discuss this with your nephrologist or renal nurse specialist.



Possible symptoms of chronic kidney disease

Common features of chronic kidney disease are poor appetite, weight loss, itching and nausea. In some cases it is possible to modify your diet to alleviate your symptoms. Please discuss with your doctor or specialist nurse and they will refer you to a renal dietitian.

Salt

Eating less salt is important for everyone, especially if you suffer with high blood pressure or kidney disease. Generally the largest amount of salt in our diets is from the salt that we add at the table or in cooking and salt used in food manufacturing.

It can take as long as 6 weeks for your taste buds to adjust to less salt, however the benefits to your blood pressure and kidneys make it worthwhile.

Tips to reduce your salt

- Use less salt in cooking: try salt-free flavour boosters, such as pepper, herbs, garlic, ginger, vinegar and spices
- Avoid adding salt to food or at the table.
- Reduce the amount of processed foods eaten: this reduces 'hidden' salt, for example, tinned food, ready meals, processed meats and smoked fish.
- Check food labels when shopping: low salt = 0.3g salt/100g or less
- Avoid salty snacks e.g. crisps, salted nuts, try unsalted varieties or popcorn
- Avoid 'salt substitutes', for example, Lo-Salt: these contain a significant amount of sodium and also contain additional **potassium** which is not recommended if you have kidney disease

Patient Information

Protein

Your body needs protein to build muscle, repair body tissues and fight infections. When your body digests and processes protein it produces a waste substance known as urea. Urea is one of the waste substances that your kidneys remove from your blood. It can be helpful to avoid eating large portions of protein to reduce the amount of urea produced and filtered by the kidneys.

Your dietary protein intake should be similar to recommendations for general healthy eating. A main meal the meat portion should be no more than 110-140gs (4-5oz); milk and dairy foods can be taking in moderation.

If you would like advice on how much protein you should eat, please ask to be referred to a renal dietitian.

Phosphate

Our kidneys control the level of phosphate in our blood. When the kidneys are not working properly a reduced phosphate diet can help to control blood levels. A normal phosphate level with kidney disease is 0.9 -1.5mmol/l.

If your blood levels of phosphate are high and you have a good appetite, it may be beneficial to reduce your intake of high phosphate foods.

- Reduce your intake of processed foods and try to cook from fresh where possible.
- Reduce/stop drinking Cola or Dr Pepper type drinks.
- Reduce milk intake towards ½ pint a day
- Limit cheese intake to no more than 90g/3oz per week
- Avoid processed cheese slices, spreads or triangles such as; Dairylea, Primula & Laughing Cow

In addition please discuss with your doctor or specialist nurse and they will refer you to a renal dietitian. This is particularly important if you are vegetarian or have a reduced appetite.

Patient Information

Potassium

Our kidneys control the level of potassium in our blood. Normal blood potassium levels are **3.7- 5.5mmol/l**.

If you are concerned about your blood potassium levels, discuss this with your doctor or specialist nurse and they will refer you to a renal dietitian.

- **If you have been advised your blood potassium levels are normal then it is not necessary to avoid high potassium foods.**
- If your blood levels of potassium are high and you have a good appetite, it may be beneficial to reduce your intake.

The following foods are high in potassium:

Fruit	Bananas, oranges, mango, rhubarb, avocado, blackcurrants, figs, dates & dried fruit
Vegetables	Parsnips, mushrooms, brussel sprouts, spinach, tinned tomatoes, sweet potato and baked beans
Snacks	Potato crisps, chocolate, toffee, fudge and nuts Bombay mix
Drinks	Coffee, chocolate and Horlicks Fruit juices and smoothies
Milk	½ pint per day. You can swap 1 small carton of yoghurt for ¼ pint of milk
Potatoes	All potatoes that have not been boiled for 20 minutes such as jacket potatoes, oven and chip shop chips
Other	Salt substitutes, for example Lo-Salt and Pan Salt

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If you are concerned about your blood potassium levels, discuss this with your doctor or specialist nurse and they will refer you to a renal dietitian.

Diabetes

Chronic kidney disease (CKD) can be a long-term complication of diabetes.

Good diabetic control can help to slow the progression of kidney disease. To help your diabetic control it is important that you have regular check-ups with the diabetic team, an annual review which includes screening for kidney disease and follow a healthy diet. Should you need more information about your diabetic diet please discuss this with your doctor or specialist nurse and they will refer you to a dietitian.

Exercise

Regular activity is important for people with chronic kidney disease. It helps with:

- Blood pressure control
- Maintaining a healthy weight
- Diabetes management
- Strength and fitness

Good activity includes: walking at a pace where you are able to comfortably talk e.g. mowing the grass, gardening, medium pace swimming or cycling.

If it has been sometime since you last exercised regularly, check with your doctor before starting new exercise.

Patient Information

UK guidelines suggest that adults should aim to be active daily as follows:

1. Over a week, activity should add up to at least 150 minutes (2½ hours) of moderate intensity activity in bouts of 10 minutes or more – one way to approach this is to do 30 minutes on at least 5 days a week.

The intensity of exercise can be measured by breath, when exercising moderately you should be out of breath enough that you cannot sing while you are exercising.

2. Alternatively, comparable benefits can be achieved through 75 minutes of vigorous intensity activity spread across the week or combinations of moderate and vigorous intensity activity. When exercising vigorously you should be out of breath enough that you cannot hold a conversation while you are exercising.

3. Adults should also undertake physical activity to improve muscle strength on at least two days a week.

4. All adults should minimise the amount of time spent being sedentary (sitting) for extended periods.

Fluid

The amount of fluid required depends on type & stage of kidney disease, other health conditions and medications.

Your kidney doctor or nurse will advise on your recommended fluid intake.

Vitamin and mineral supplements

If you eat a well-balanced diet there is probably no need for a supplement unless advised by your dietitian or doctor.

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Supplement	Comment
Fish liver oil	Avoid in kidney disease. Fish oil (i.e. not liver oil) can be taken as an alternative
Glucosamine	Avoid in advancing kidney disease i.e. when you are approaching dialysis
Vitamin D	Patients with kidney disease are at an increased risk of deficiency. If you are concerned please request a blood test with your doctor, and supplementation can arranged if indicated.
Multivitamin preparations	Avoid in kidney disease as they contain too much vitamin A & E. If you wish to take a vitamin and mineral supplement the most suitable types are those produced for pregnancy

Herbal tablets, remedies and homeopathic medicines

Please avoid taking these supplements unless you have discussed with your consultant or member of the renal team.

Patient Information

Cook books

Eating well with Kidney Failure: A practical guide and cook book and Expert guidance and delicious recipes: You can buy these books online from the NKF (UK) website or the renal dietitians hold a stock of order forms.

Rediscovering Food & Flavours: Shire Pharmaceuticals

Food with thought: Amgen – available from the the NKF (UK) website

Useful websites for people following renal dietary advice

The list below details a few of the websites which we feel may be helpful to you. Many of the websites have links to other sites with useful information and recipes.

UK based websites

For information on all aspects of renal failure, the National Kidney Foundation www.kidney.org.uk

A site with useful, patient friendly information and sensible information on diet and Recipe books - www.kidneypatientguide.org.uk

Kidney care UK has some useful resources on diet and lifestyle suggestions www.kidneycareuk.org

The national kidney research fund has information pages about renal diseases and a news page - www.kidneyresearchuk.org

For information about diabetes and diet – www.diabetes.org.uk

Patient Information

The website below gives more information about reducing the amount of salt in your diet.

<http://www.nhs.uk/Livewell/Goodfood/Pages/salt.aspx>

International websites

The American kidney Federation has interesting information on diet, including recipes in the section 'kidney kitchen'. In addition it has other information regarding renal disease - www.kidney.org

The Australian kidney federation has a useful diet section and links to other websites and information – www.kidney.org.au

DaVita is a comprehensive resource regarding dialysis and kidneys disease. It has an extensive diet section - www.davita.com

www.freseniuskidneycare.com – an American website with useful information about kidney disease and has some good recipe idea

Know your numbers

Getting access to renal patient view (an online tool which records your blood results) is a brilliant way to get to know your numbers (blood results) and keep track of your progress.

You would like to gain access to renal patient view you can find out more details by logging onto www.patientview.org, or speak to a member of your renal team.

If you don't use renal patient view; the following table may help you to monitor your blood results and identify when you may wish to discuss a referral to a dietitian, with your doctor or specialist nurse.

Patient Information

Test	What is it?	Desirable level	Date	Date	Date	Date	Date
Estimated glomerular filtration rate (eGFR)	A guide to percentage of kidney function						
Potassium (K⁺)	An electrolyte which can affect the heart if too high or low	3.7– 5.5 mmol/l					
Phosphate (PO₄)	Correct levels important to maintain healthy bones and heart	0.9 – 1.5 mmol/l					
Calcium (Ca²⁺)		2.2- 2.5 mmol/l					
Parathyroid hormone (PTH)		1.6 – 6.9pmol/L					
Haemoglobin (Hb)	Red blood cell level in the blood – low levels show anaemia	100 -120					

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

Patient Information

Further Information

Should you require further information or have any questions please use the telephone number below.

Contact number: 024 7696 6151

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

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

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