

Department of Nutrition and Dietetics

Renal disease: Getting started on a low potassium diet

This information should only be used by patients with renal disease and a high potassium level. It should only be followed with supervision from a dietitian.

What is potassium and what does it do?

Potassium is a mineral found throughout our bodies and it is needed for our muscle function. Our kidneys help to control the amount of potassium in the blood. When our kidneys do not work properly blood potassium levels may rise.

High levels of potassium in your blood do not usually make you feel unwell, but can disrupt your heart rhythm and this may cause a heart attack.

What is the recommended potassium level?

Therapy	Recommended blood potassium level (mmol/l)
Non-dialysis	3.7-5.5
Haemodialysis	3.5-6.0
Peritoneal dialysis	3.5-5.5



How can I control levels of potassium in my blood?

Potassium levels can be controlled by:

- Following a low potassium diet if advised by a member of the renal team
- Maintaining regular bowel movements/avoiding constipation
- Following your medical treatment plan. Parts of your medical treatment that can help control your potassium levels include attending dialysis, taking sodium bicarbonate if prescribed, and getting support to keep your blood glucose levels within the recommended range.

The following information aims to help you limit the amount of potassium you eat whilst maintaining a balanced diet.

Step One: Reduce your intake of potassium additives

Many processed foods contain potassium additives which manufacturers add to improve the texture, lifespan or reduce the salt content of foods. These additives are absorbed very efficiently by your body and can raise your potassium levels more than naturally occurring potassium. Avoiding additives can therefore help control your potassium levels.

Look for and avoid **'potassium chloride', 'potassium lactate', 'potassium phosphate' or 'potassium citrate'**

These are most frequently found in processed foods such as low salt products, meat, vegetarian meat alternatives, processed cheese, soups and powdered drink mixes such as hot chocolate, coffee whiteners and malted drinks (such as Horlicks).

Do not use salt substitutes such as Lo salt/Pan salt at the table or during cooking, as these are very high in potassium.

Step Two: Avoid sources of easily absorbed potassium

Foods high in potassium to limit	Have instead – lower potassium foods
Drinks: Coffee, fruit juice, tomato juice, drinking chocolate, Horlicks, instant teas, milk powder, milk shakes, smoothies, condensed or evaporated milk	Tea, squash, fizzy drinks, flavoured water, tap or mineral water, tonic water, fruit teas, cereal based drinks such as barley cup and Caro
Sweets: Chocolate, toffee, fudge, liquorice, coconut sweets, sweets containing nuts or dried fruit, nougat, condensed or evaporated milk	Boiled sweets, chewing gum, mints, fruit pastilles and jellies, plain Turkish delight, plain honeycomb, sherbet
Savoury: Potato crisps & potato snacks, nuts & seeds, Bombay mix, twiglets	Wheat/corn/rice based snacks such as, Skips, Wotsits, tortilla chips, Wheat Crunchies, Nik Naks, popcorn, rice cakes such as Snack a Jacks, mini cheddar, breadsticks (limit to a maximum of one small bag of snacks a day only, and check for/avoid those with potassium additives)
Cakes and biscuits: Any cakes or biscuits with dried fruit, nuts or chocolate	Plain cakes and biscuits, biscuits with jam or cream, apple pies, doughnuts, flapjacks, pastries, plain scones, jam/lemon tarts, cream cakes, pancakes and cream crackers

- Have potatoes a maximum of once per day. Pasta, rice and bread are good lower potassium carbohydrate alternatives to potatoes, and wholegrain varieties can promote good gut health.
- Always boil potatoes as this removes some of the potassium. Cut into small pieces and boil in a large quantity of water for 20 minutes, drain and throw away the water. Once boiled, potatoes can be fried, roasted or creamed. Limit jacket potatoes and potato products such as oven

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chips, potato waffles and croquettes as these will not have been pre-boiled.

Step Three: Reduce your animal protein portions

- Limit milk to ½ pint per day (or ¼ pint plus one 125g pot of yogurt)
- Aim for 100g meat or fish (a similar size to a standard deck of cards) at a main meal
- 50g (a large matchbox-sized piece) of meat/fish/cheese or 2 eggs at a light meal
- Increase the amount of plant-based proteins you eat. Plant proteins have been shown to stress the kidneys less than animal proteins and contain less absorbable potassium.

Try having two days each week where your main meal is made from plant proteins or try changing to 50% meat and 50% lentils, beans or pulses in your curries, stews, cottage pies and bolognese dishes.

Try to get your 5-a-day of fruit and vegetables as they can help to regulate your potassium levels when eaten in the correct amounts. They are also important for your overall health.

Choose your 5 portions from the lower potassium list below.

Foods high in potassium to limit	Have instead – lower potassium foods
Fruit: Apricots, bananas, oranges, blackcurrants, redcurrants, rhubarb, avocado, figs, dates, mango, dried fruit, coconut, pomegranate melon, grapefruit, gooseberries, prunes, guava, sharon fruit	Apple (1 small), pear (1 small), tangerine (1 small) or satsumas (2 small), plums (1 small), grapes (15 only), strawberries (6 only), kiwi (1 small), olives, blackberries (20 only), raspberries (20 only), blueberries (200g) small peach or nectarine. Tinned fruit 1/3 tin (discard juice or syrup)

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Vegetables: Mushrooms, brussels sprouts, spinach, sweet potato, baked beans, parsnips, tinned tomatoes, beetroot, spinach, butternut squash & swiss chard	Asparagus (3 spears), aubergine (1/4), beansprouts, (2tbsp), broccoli (2 spears), cabbage (90g), cauliflower (2 spears), celery (1 stick raw), courgette (1/2 large), raw cucumber (2.5 cm or 1" piece), gherkins (60g), green beans (boiled, small portion), leek (1/2 medium), lettuce (raw, 50g), mangetout (150g boiled), mixed frozen vegetables (90g boiled), fried onion (3 slices), raw onion (90g), peas (2tbsp), radishes (8), sweetcorn (2tbsp), swede (boiled, 100g), tomato (1 small raw)
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It is important that you eat well whilst following a low potassium diet. If your appetite reduces, please contact your Dietitian for further dietary advice on 024 7696 6151.

You can also find us on Twitter @UHCW_RenalDiet

WARNING – Star fruit contains a chemical which can be extremely dangerous to people with kidney problems.

Produced by Coventry Renal Dietitians, University Hospitals Coventry and 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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