

Potassium and chronic kidney disease

If you have been diagnosed with chronic kidney disease (CKD) it may be necessary to make some changes to the food you eat. Some people with CKD have blood potassium results that are higher than normal.

If this is the case, a low potassium diet is recommended. This leaflet will help you choose foods that are lower in potassium.

What is potassium?

Potassium is a mineral found naturally in many foods. Some potassium is needed as part of a healthy diet. Potassium plays a role in keeping your heartbeat regular and keeping your muscles working normally.

Your blood potassium level should be 3.5 – 5.3 mmol/L.

Why do I need to control the amount of potassium in my blood?

If your blood potassium level is very high, this may be dangerous. This is because potassium affects your heart rhythm and could cause a heart attack.

Why is the amount of potassium in my blood too high?

The level of potassium in your blood is usually controlled by the kidneys. When your kidneys are not working properly, the potassium level in your blood may rise. High potassium foods will make this worse but there can also be medical reasons that cause a higher blood potassium level, such as:

1. some blood pressure tablets
2. your blood becoming too acidic (known as 'acidosis')

How do I follow a low potassium diet?

Your dietitian can give you individualised advice on the changes you may need to make.

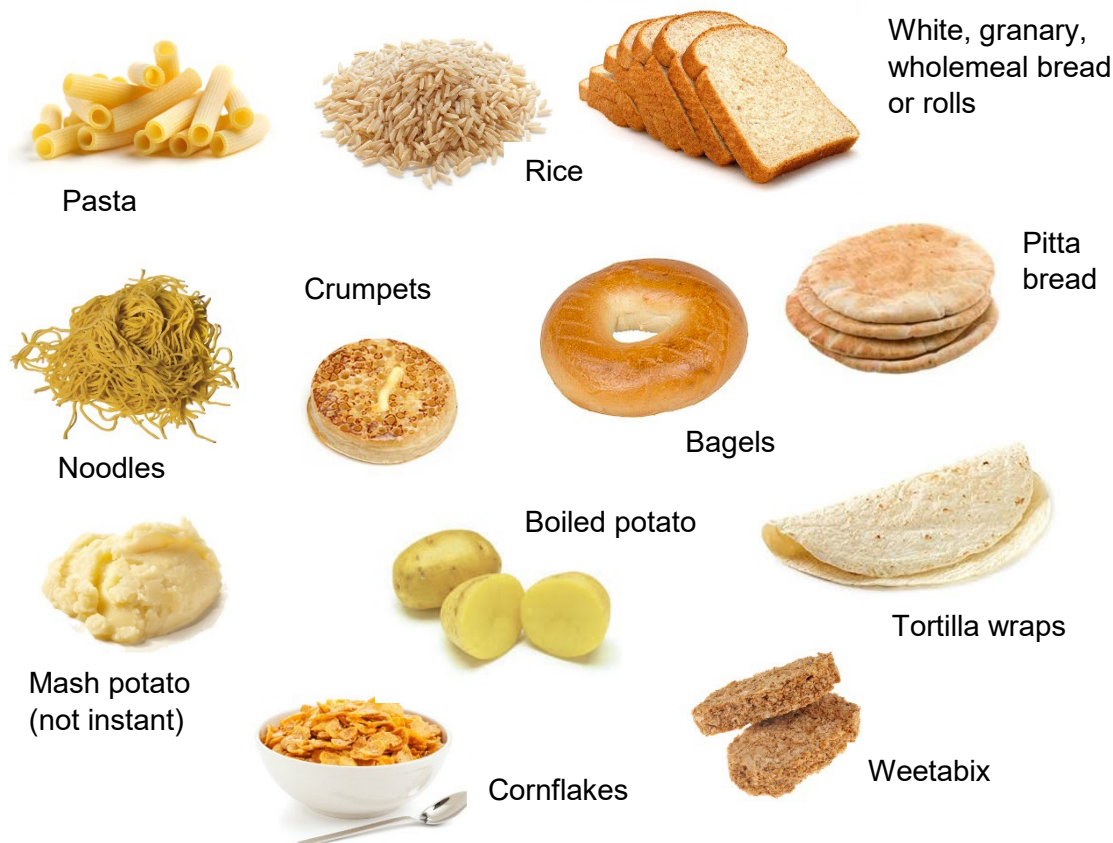
For each food group, we have listed foods that need to be limited or avoided because they are high in potassium. We have also listed lower potassium alternatives.

The use of potassium additives in the food industry is growing. It is often used to replace sodium in foods to reduce the salt. Unfortunately, we don't always know the exact quantities used so it is best to try to choose fresh or natural foods that have not been processed and that are lower in additives. Cooking with fresh ingredients is strongly recommended.

Carbohydrate (Starchy foods)

Carbohydrates, also known as starchy foods, provide energy, vitamins and fibre. Some starchy foods such as bread, rice and pasta are low in potassium and can be eaten freely.

Lower potassium carbohydrates



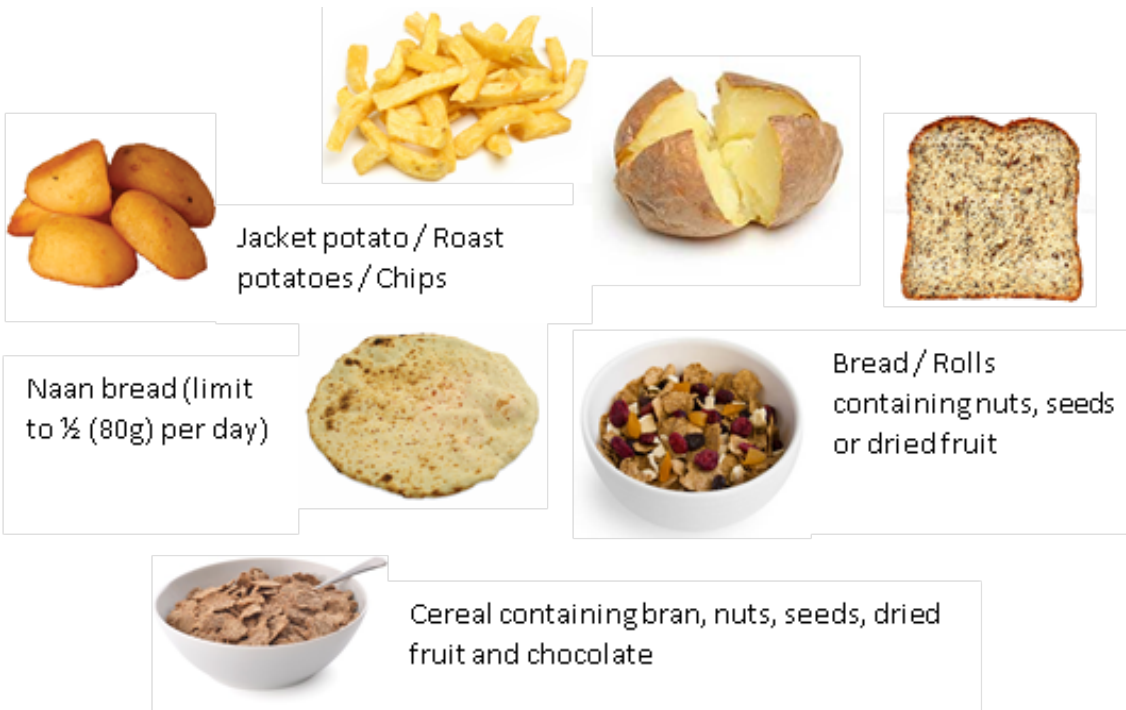
Other suitable lower potassium carbohydrates include:

Any breakfast cereal NOT high in bran and containing no dried fruit, nuts or chocolate, e.g. Shredded Wheat, Shreddies, Rice Krispies, Special K, Cheerios and porridge; English muffins, croissants, couscous, pastry, Yorkshire puddings, dumplings, boiled yam/cassava/taro

High potassium carbohydrates

Some starchy vegetables like potato, sweet potato, cassava and yam are particularly high in potassium and need to be limited in the diet.

150g (5oz) potatoes (3 egg size potatoes) are allowed daily. This may be swapped for 150g boiled sweet potato / yam / cassava / taro.



Top tip!

The way you cook your food (especially potatoes and vegetables) can affect its potassium content. When boiled, some of the potassium is lost into the cooking water. This reduces the potassium content of the food. It is best to throw away this water and not use it to make soups, gravies, curries or casseroles.

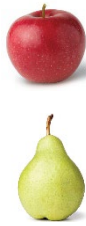

Fruit and vegetables

Fruit and vegetables are a good source of vitamins, minerals and fibre. They all contain some potassium, but some much more than others. The tables have been arranged in ascending order, from the very lowest amount of potassium to the highest.

For comparison, a standard portion size of 80g (3oz) has been used. For fruit, this is roughly what will fit in the palm of your hand, e.g. a handful of small fruit such as berries or grapes, or one apple, pear, peach or satsuma.

For vegetables, 80g is about 2 heaped tablespoons.



Low potassium fruit

<p>Guava – canned Blueberries – fresh Papaya – canned Pineapple/grapefruit–canned Mandarins – canned Strawberries – canned Plums – canned Olives Raspberries – canned Cranberries – fresh Fruit cocktail – canned Apples – fresh Pears – fresh Watermelon – fresh</p>		<p>Lemons/limes – fresh Cherries – canned Galia melon – fresh Blackberries – fresh Peaches – fresh Lychees – fresh or tinned Pineapple – fresh Oranges / clementine / tangerines / satsumas – fresh Gooseberries – stewed Raspberries – fresh Strawberries – fresh Nectarines – fresh Peaches – canned</p>	
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Medium potassium fruit

<p>Kumquats – fresh Honeydew melon – fresh Mango – fresh Apricots – stewed Grapefruit – fresh Figs – fresh Papaya – fresh Plums – stewed Quinces – fresh Passion fruit – fresh Sharon fruit – fresh</p>	<p>Gooseberries – fresh Cantaloupe melon – fresh Cherries – fresh Grapes – fresh Loganberries – stewed Pomelo – fresh Guava – fresh Rhubarb – stewed Pomegranate – fresh Plums – fresh</p>	
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High potassium fruit

<p>Loganberries – fresh Apricots – fresh Redcurrants– fresh Damsons – fresh Kiwi fruit – fresh White currants – fresh</p>		<p>Greengages – fresh Physalis (cape gooseberry) – fresh Blackcurrants – stewed Bananas – fresh Prunes – canned Passion fruit – fresh</p>	
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VERY High potassium fruit

Blackcurrants – fresh Coconut (flesh) – fresh Avocados – fresh Dates – dried Prunes		Dried mixed fruit Currants, raisins and sultanas Figs – dried Apricots – dried	
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Low potassium vegetables

Beansprouts – raw or cooked Mushrooms – canned Bamboo shoots – canned Pumpkin – boiled Swede – boiled Onions – pickled or boiled Gherkins – pickled Marrow – boiled Spaghetti squash – baked Green peppers – raw Chickpeas – canned Runner / green beans – boiled Red cabbage – boiled Mixed veg – frozen, boiled	Onions – raw Sugar snap peas – raw or fried Leeks – boiled Cucumber – fresh White cabbage – boiled Curly kale – boiled Spring greens – boiled Carrots – boiled Chicory – raw Sweetcorn – boiled Aubergine – fried Mangetout – boiled Mushy peas – canned Coleslaw	
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Medium potassium vegetables

Peas – frozen, boiled Carrots (old) – raw Carrots (young/baby) – raw Shallots – raw Green cabbage – boiled Onions – fried Yellow peppers – raw Beetroot – pickled Broad beans – boiled Summer squashes – boiled Corn on the cob – boiled Mangetout – raw or fried Salsify – boiled Turnips – boiled Courgettes – boiled	Broccoli – boiled Tomatoes – canned Cauliflower – boiled Red peppers – raw Red lentils (dried) – boiled Mooli/white radish – raw Asparagus – boiled Lettuce – fresh Tomatoes – raw White cabbage – raw Celery – boiled Spinach (mature) – boiled Watercress – fresh Radishes – fresh	 
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Compassionate

Aspirational


Resourceful

Excellent

High potassium vegetables

Red cabbage – raw	Fennel – boiled	
Spring onions – raw edible part	Brussels sprouts – boiled	
Mung beans (dried) – boiled	Green / brown lentils (dried) – boiled	
Potato salad (retail)	Okra – boiled	
Chickpeas (dried) – boiled	Celery – raw	
Baked beans – canned	Blackeye beans (dried) – boiled	
Red kidney beans – canned	Raddiccio – raw	
Butternut squash – baked	Artichoke (edible part) – boiled	
Pak choi – steamed	Celeriac – boiled	
Green cabbage – raw	Spinach (frozen) – boiled	
Butter beans – canned	Kohlrabi – boiled	

VERY High potassium vegetables

Parsnips – boiled	Beetroot – boiled	
Endive – raw	Water chestnuts – raw	
Plantain – boiled	Mushrooms – fried	
Artichoke (Jerusalem) – boiled	Mustard and cress (garden cress)	
Red kidney beans (dried) boiled	Swiss chard – boiled	
Fennel – raw	Aduki beans (dried) – boiled	
Pinto beans (dried) – boiled	Plantain – fried	
Okra – fried	Spinach (baby) – raw or cooked	
Courgettes – fried	Tomato puree	
Spinach (mature) – raw	Sundried tomatoes	
Soya beans (dried) – boiled	Mushrooms (dried)	

Milk and dairy

Milk and other dairy products are a useful source of calcium, which is needed for healthy bones. However, milk is also rich in potassium so dairy foods need to be limited.

Limit milk to no more than 1/3 - 1/2 pint per day.

If you wish to have other dairy products these may be taken in place of your milk allowance as follows. Keep to a total of no more than 2-3 points per day.

Milk or dairy product	Points
Half a pint of milk (cows'/sheep's/goats')	3
Glass of milk (200ml)	2
Rice pudding (180g portion)	2
Fruit yoghurt, small pot (125g)	1½
Milk on cereal (100ml)	1
Plain yoghurt (60g, 1½ tablespoons)	1
Custard (80g, 2 tablespoons)	1
Ice-cream (120g or 2 scoops)	1
Crème-caramel (100g pot)	1



All types of cheese, all creams and crème fraiche are low in potassium.

The following milk substitutes are recommended but choose organic varieties that have no additives: soya milk, oat milk, rice milk, coconut milk, almond or hazelnut milk.

Other protein sources

Protein is important for building and maintaining muscle. Your dietitian may advise you on the appropriate amount of protein foods to try to eat.

Lower potassium proteins



Eggs



Quorn

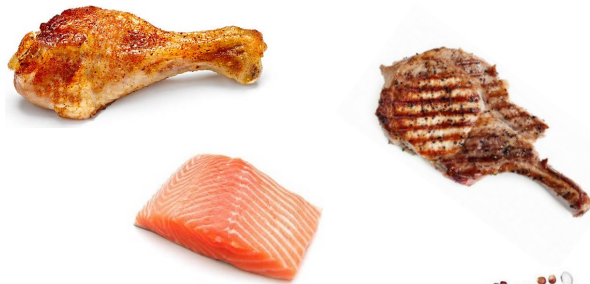


Tofu



High potassium proteins

All meat and poultry, fish and seafood so limit portion sizes



Nuts



Seeds



Pulses

Some pulses (e.g. kidney beans, chickpeas and lentils) are relatively high in potassium compared to other vegetables. However, if you are eating pulses instead of a portion of meat or fish as a vegetarian meal, then there is no problem with this.

Snacks

Lower potassium snacks

Maize/corn-based snacks e.g. Wotsits, Monster Munch or Doritos; rice-based snacks such as rice cakes; breadsticks, pretzels, plain popcorn. Plain biscuits, crackers, wafers, sponge cakes, sweets, doughnuts, jam tarts, mints, marshmallows.



High potassium snacks

Potato crisps, vegetable crisps, all nuts and seeds, dried fruit, Bombay mix, Twiglets, chocolate, liquorice allsorts, any biscuit/cake/ confectionary/pudding containing chocolate, nuts or dried fruit.



Be wise!

**Have savoury snacks in moderation as they are high in salt.
Limit sugary food and drinks, especially if you have diabetes.**

Drinks and alcohol

Lower potassium drinks



Squash / Cordials



Water including tonic, soda or flavoured water



All types of tea



Fizzy drinks



Spirits e.g. vodka / rum / gin

High potassium drinks



Fruit or Vegetable juice / Smoothies

Coffee



Drinking chocolate and malted drinks



Avoid or limit – beers, including lagers, ales and stout; cider, all types of wine and fortified wines

Be wise!

The government recommends that men and women have no more than 14 units of alcohol per week.

Miscellaneous

Lower potassium foods

All types of cooking oil, butter, margarine or other spreads. Herbs and spices, pepper, garlic, vinegars, mayonnaise or salad cream, mustard, jam, marmalade, honey, lemon curd, golden syrup, horseradish sauce, chilli sauce, curry powder, mint sauce, sweet pickle, apple sauce, gravy granules.



High potassium foods



Top tip!

Avoid reduced sodium salts e.g. Lo-Salt or Saxa So Low. They contain potassium in place of sodium.

Further information

National Kidney Federation www.kidney.org.uk

The NKF is the National Kidney Patient charity in the United Kingdom. The charity is run by kidney patients for kidney patients.



Kidney Research UK www.kidneyresearchuk.org

Kidney Research UK is the leading UK charity funding research that focuses on the prevention, treatment and management of kidney disease. The charity also dedicates its work to improving patient care and raising awareness of kidney disease.

Kidney Patient Guide www.kidneypatientguide.org.uk

This website provides information for renal patients, their partners and families, health care professionals and anyone else who is interested in kidney disease.

Contacting us

My dietitian: _____

Tel: 0118 322 7166 / 01753 866008

Kidney Care Nurses Tel: 0118 322 7899

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

RBFT Department of Renal Medicine/Dietetics, November 2022

Next review due: November 2024

Compassionate

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Resourceful

Excellent