

Potassium

A guide to lowering the potassium
in your diet

Information for patients



You have been asked to follow a low potassium diet. This booklet has been designed to enable you to continue to enjoy your food whilst following a low potassium diet.

What is potassium?

Potassium is a mineral that is essential for life. It is found in our blood and food. It is important for the normal function of all nerves and muscles, including the heart. Potassium is present in most food and drinks; it has no taste or smell.

Why is the amount of potassium in my blood high?

The kidneys normally help to control the level of potassium in our blood. When the kidneys are not working properly, the level of potassium in the blood may become too high. This can be dangerous as it can affect the way the heart beats.

We are aiming to help keep your potassium between:

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Other causes of abnormal potassium levels

Other factors may also cause an abnormal potassium level. These can include recent blood transfusions, medication, muscle breakdown, constipation and poorly controlled diabetes.

If you are experiencing constipation or struggling to control your diabetes, seek further medical advice.

Other dietary requirements

You have been asked to follow a low potassium diet. However if you have diabetes, coeliac disease, are following a weight reducing diet or have other dietary needs it is important that these diets continue. The dietitian will discuss this with you.

We do not recommend the purchase of over the counter multivitamins. Please do not hesitate to discuss this with the dietitian if you have any questions.

Food labelling

Potassium is not listed under the nutritional values on food and drink labels. However you may want to use the ingredients list as a guide. The ingredients are listed in order of quantity, therefore should it list a high potassium food first you may wish to avoid it.

Example: Tomato based curry sauce

Water, **tomatoes**, onions, **concentrated tomato puree**, **concentrated whole tomatoes**, garam masala, vegetable oil, modified starch, garlic puree, ginger and spices.

Tomatoes appear at the beginning of the ingredients and because tomatoes are a high potassium food, the curry sauce will be high in potassium.

- You could avoid this food and choose a suitable alternative
- Or make sure you accompany this meal with a low potassium food such as bread, rice or chapati
- If this is a treat then make sure you have reduced your potassium intake during the day to account for this meal

Salt substitutes

In order to reduce the salt (sodium) content of foods, manufacturers are using salt substitutes to achieve this. LoSalt or potassium chloride are salt substitutes, which are high in potassium. If they are listed as part of the ingredients the food should be avoided.

Example: Reduced salt baked beans

Haricot beans, water, tomato puree, sugar, modified maize starch, **potassium chloride**, salt and sweetener.

Preservatives

A preservative, potassium sorbate, is often added to food and drinks such as cordials and squashes. This does not need to be avoided.

Eating out and celebrations

It can be difficult to choose a meal when eating out or at a time of celebration, while keeping in mind your low potassium diet.

If you require further information about this ask your dietitian for guidance.

Protein foods

Protein foods include meat, poultry, fish, eggs, nuts, pulses and meat substitutes eg. Quorn and tofu. They can be high in potassium but are a valuable food source as they provide protein, vitamins and minerals. For this reason many are not restricted, however you may need guidance on portion sizes.

Meat, poultry and fish

- All types (fresh or frozen) can be eaten freely. If previously advised, please follow advice regarding daily protein allowance
- Please note that cured or salted meats and fish are high in salt

Eggs

- Can be taken freely

Meat substitutes

- For example Quorn and tofu can be eaten

Lentils and pulses

- These are allowed but only as an alternative to meat. Avoid having meat or fish and lentils or pulses at the same meal. If you use these in your cooking please discuss this further with your dietitian
- Boiling lentils or pulses separately before using will reduce their potassium content
- Canned pulses and lentils are lower in potassium

Nuts and seeds

- These foods are high in potassium. If you use small amounts in your cooking please discuss this further with your dietitian. To include these foods as a snack refer to the fruit, nut and seed list

If you are vegetarian or vegan please inform your dietitian and further advice can be given

Milk and dairy products

These foods are an important source of protein and calcium. They do contain potassium therefore you may need guidance on portion sizes.

Recommended allowance
Milk and soya milk
<ul style="list-style-type: none">• Up to ml of milk is acceptable daily. This can be any type of fresh, UHT or soya milk• Milk powder can be used as an alternative to milk, when following the manufacturers guidelines• Avoid Coffee Mate. You can use Coffee Compliment• Avoid all tinned milk (condensed or evaporated)• Avoid coconut milk
Yoghurts, fromage frais and yoghurt drinks
<ul style="list-style-type: none">• You can include any type but limit to 125 g carton each week
Cream
<ul style="list-style-type: none">• Fresh cream can be used in small amounts• Double cream and water can be used as a substitute for milk
Cheese
<ul style="list-style-type: none">• All types can be taken in small amounts• Watch out for salt substitutes in the ingredients
Milk puddings and ice-cream
<ul style="list-style-type: none">• Limit milk puddings to twice per week• Ice-cream can be eaten freely
Fats and oils
<ul style="list-style-type: none">• Any type e.g. margarine, butter, cooking oils, suet, dripping and ghee can be used in small amounts• We recommend the use of monounsaturated fats in small amounts e.g. olive oil, rapeseed oil and olive-based spreads

Starchy foods

These foods are an essential part of the diet and should be included with every meal. They provide us with energy and fibre as well as minerals. Some starchy foods for example potatoes, yam and plantain are high in potassium; please see page 9 for information regarding portion sizes.

Low Potassium Foods	High Potassium Foods
<p>Breads All types e.g. wholemeal, white, granary, soda bread, pitta breads, bagels, croissants and English muffins</p>	<p>Popadoms Avoid bread containing nuts, dried fruit, sweet potato and coconut</p>
<p>Other starchy foods Chapatis, plain naan, paratha, corn or tortilla wraps, crumpets, pikelets, scotch pancakes, Yorkshire puddings, dumplings, cream crackers and crispbreads, cous cous, pasta, rice, noodles and pittas</p>	<p>Tinned spaghetti in tomato sauce and tinned ravioli in tomato sauce</p>
<p>Breakfast cereals Porridge made with water or milk from allowance, cornflakes, Rice Krispies, Cheerios, Sugar Puffs, Weetabix, Shredded Wheat, Shreddies, Frosties, Start, Special K, Ricicles, Honey Smacks, Crunchy Nut Cornflakes, Puffed Wheat and Grape Nuts</p>	<p>Breakfast cereals containing nuts or dried fruit e.g. muesli, Fruit and Fibre, Weetabix Minis, Sultana Bran, All Bran, Raisin Splits, and Jordans Crunch Branflakes and Ready Brek</p>

Low Potassium Foods	High Potassium Foods
<p>Cooking methods</p> <p>If you need to add flour to thicken sauces try corn flour, plain flour or rice flour</p>	<p>Lentil, chickpea (besan) and soya flours are high in potassium</p>

Starchy vegetables

This includes potatoes, sweet potatoes, yam and plantain. They contain large amounts of potassium, therefore they need to be limited in the diet. **To reduce the potassium content of these foods they should be boiled first.**

Below is a list of starchy vegetables. The quantities are equal to one portion. We recommend limiting your intake to portions each day.

Food	Portion
Boiled potatoes	50 g (1 large 'egg-size')
Mashed potatoes	50 g (1 ice-cream scoop)
Instant Mash potato*	50 g (1 ice-cream scoop)
Jacket potato	25 g (avoid skin)
Manufactured chips	25 g (approx 6 chips)
Manufactured roast potatoes	25 g 40 g
Plantain	60 g
Cassava	60 g
Yam	50 g
Sweet potato	40 g
Breadfruit	80 g
Taro	

(30 g = 1 oz)

* High in salt

Potatoes should be boiled in large amounts of water until soft. The potassium will come out into the water. **Throw the cooking water away.** Do not use the water for gravy, soup or drinking. Do not use a microwave oven, steamer or pressure cooker to cook potatoes.

Once potatoes have been boiled you can roast them or make them into chips.

Vegetables

Vegetables are an important source of vitamins and minerals as well as fibre. However, they are also a source of potassium.

To reduce the potassium content of the vegetables, they should be boiled first in a large amount of water.

Below is a list of vegetables. The quantities are equal to one portion. We recommend limiting your vegetables to portions each day.

Food	Portion	Food	Portion
Baked beans	1 tbsp	Sweetcorn	2 tbsp
Broad beans	1 tbsp	Tinned tomato	2 tbsp
Frozen cauliflower	2 tbsp	Turnip	2 tbsp
Fresh cauliflower	4 tbsp	Broccoli	3 tbsp
Boiled celery	2 tbsp	Cabbage	4 tbsp
Courgettes	2 tbsp	Carrots	3 tbsp
Fresh peas	2 tbsp	Frozen mixed veg	3 tbsp
Frozen peas	3 tbsp	Mange tout	3 tbsp
Green beans	2 tbsp		
Leeks	2 tbsp	Runner beans	3 tbsp
Fried onion	1 tbsp	Spring greens	3 tbsp
Onion	3 tbsp	Swede	3 tbsp
Brussel sprouts	x 6	Asparagus	2 spears
Tinned okra	x 14	Mushrooms (raw)	4 medium button
Baked butternut squash	50 g	Mung beansprouts	4 tbsp
Cho-Cho / Christophene	100 g	Ackee	60 g
Water chestnuts (canned)	100 g	Pumpkin (raw)	100 g
		Boiled pumpkin	200 g
		Bamboo shoots	100 g
		Fresh okra	50 g
		Red or green pepper	Whole pepper

tbsp = tablespoon

Avoid artichokes, beetroot (as a vegetable), celeriac, raw celery, raw okra, parsnip, spinach, callaloo (amaranth), chard and kale as they are very high in potassium.

Salad

In place of your vegetables you may have a side salad made up from a selection of up to five of the following:

- 4 slices cucumber
- 10 g mustard and cress
- 35 g gherkin
- 3 - 4 small pickled onions
- 2 rings green or red pepper
- 2 radishes
- 3 leaves of lettuce
- 2 spring onions
- 4 slices of pickled beetroot
- A bunch of watercress

Plus one small tomato.

Making tomato-based sauces

Tomato based sauces can be used if not eaten with potatoes. They can be included within rice and pasta based meals.

- 100 g of tinned tomatoes per portion can be used to make a pasta based sauce
- Alternatively 2 tablespoons of a bought ready-made tomato pasta sauce can be used per portion e.g. Dolmio, Ragu and supermarket own brand
- Tomato puree should not be used
- Vegetables from the above list can be added to the sauce

When making stews

All potatoes and vegetables should be boiled separately, discarding the water, before adding them to stews and casseroles.

Fruit, nuts and seeds

Fruit, nuts and seeds are an important source of vitamins and minerals as well as fibre. However, they are also a source of potassium.

Below is a list of fresh, tinned, stewed fruit and fruit juice. The quantities are equal to one portion. We recommend limiting your fruit, nuts and seeds to portions each day.

Fresh fruit	Tinned fruit
1 medium apple 1 medium pear 2 medium clementine 2 small tangerines 5 slices fresh lemon 2 small satsumas 1 small orange 5 passion fruit 1 medium peach 1 slice fresh pineapple 9 fresh strawberries 25 fresh raspberries 1 medium slice watermelon 20 blackberries 12 raw cherries 1 small guava 1 small Sharon fruit 15 grapes 1 medium kiwi fruit 1 small nectarine 2 small plums 150 g punnet of blueberries	12 canned 7 slices tinned peaches 4 halves tinned pears 4 tablespoons of: fruit cocktail fruit pie filling mandarins plums strawberries lychees mango 3 tablespoons of: gooseberries guavas papaya rhubarb Stewed fruit 4 tablespoons of: apple blackberries gooseberries 3 tablespoons of: plums rhubarb

Fresh fruit juice

300 ml unsweetened pineapple juice
300 ml unsweetened grape juice
200 ml unsweetened cranberry juice
150 ml apple juice
100 ml orange juice
80 ml pomegranate juice
80 ml passion fruit juice
80 ml tomato juice
Avoid ready-made fruit smoothies

The following fruits are very high in potassium and can be included, however the portion size is small.

1 small apricot	1 dried apricot
½ small banana	2 raw dates
2 small slices of mango	1 dried date
½ naseberry (sapodilla)	1 small dried fig
¼ avocado	1½ tbsp canned prunes
½ slice papaya	1 tsp raisins
1 small slice galia melon (100 g)	
1 medium slice cantaloupe or honeydew melon (75 g)	

The following nuts and seeds are equivalent to one portion.

10 almonds	20 g hazelnuts
7 brazil nuts	18 macadamia nuts
20 cashew nuts	20 peanuts
3 chestnuts	5 pecan nuts
20 g peanut butter	15 pistachio nuts
1 tbsp sunflower seeds	1 tbsp sesame seeds
1 tbsp tahini	6 walnut halves

Please avoid starfruit

Snacks and desserts

This group of foods contain a lot of fat and sugar. These foods can be eaten freely, unless advised differently by your dietitian. (If you have diabetes, remember to follow your diabetic diet).

Foods to choose	Foods to avoid
<p>Cakes</p> <p>Sponge cakes, including lemon drizzle cake, lemon curd finger rolls, fairy cakes, Victoria sponge (with cream, jam and buttercream fillings), Madeira cake, bulla, battenburg, treacle tart, jam tarts, jam swiss roll, doughnuts, plain scones, Danish pastries (with no dried fruit or nuts) and plain rusks</p>	<p>Cakes containing dried fruit, nuts, chocolate, marzipan and coconut</p> <p>Cassava pone and coconut ice (Sugar Cake)</p>
<p>Biscuits</p> <p>Plain e.g. rich tea, digestive, HobNob</p> <p>Cream filled: custard creams, jammy dodgers, shortbread and sponge fingers</p>	<p>Biscuits with chocolate, nuts, dried fruit and coconut</p>
<p>Puddings</p> <p>Pavlova, sponge pudding (syrup or strawberry jam), lemon meringue pie, corn pudding, apple or plum crumble, apple pie or tinned fruit and cream</p>	<p>Sweet potato pudding</p> <p>Remember to include stewed fruit or tinned fruit within your fruit allowance</p>

Foods to choose	Foods to avoid
<p>Sweets and chocolate Boiled sweets, wine gums, mints, chewing gum and marshmallows</p>	<p>Chocolate (suitable options are listed on page 18), toffee and fudge, liquorice, fruit gums Carob and Sev</p>
<p>Savoury snacks Remember these are high in salt Tortillas, Tuc, Ritz, Krackerwheat, popcorn, plain breadsticks and pretzels</p> <p>Maize and wheat based crisps are lower potassium options. However, it is important to read the products ingredients list to ensure the product does not contain potassium chloride</p>	<p>Potato based snacks; potato crisps, Quavers, Bombay mix, Twiglets 'Flaming hot' Monster Munch and Frazzles</p> <p>Tomato salsa and guacamole</p>

Chocolate

The following brand names are lower in potassium than others. It is safe to choose **one** from the list below each day, unless advised differently by the dietitian.

- Milky bar (standard size, 26 g)
- Blue Riband
- Kit Kat (two finger, 22 g)
- Two Jaffa cakes
- Creme eggs (39 g)
- Mars bar (fun size, 19 g)
- Twix (one single finger, 28 g)
- Four cream filled chocolates (e.g. Quality Street, Roses)

Drinks

If you are provided with a fluid allowance, all drinks should be counted within that allowance. Remember if you add milk to tea or coffee; to use it from your daily allowance.

Drinks to choose	Drinks to avoid
Soft drinks Lemonade, Tango, orange and lemon squash, Lucozade, cola drinks, 7 Up, Sprite, Lilt, soda and tonic water	To include fruit juice see fruit portion information (page 15) High Juice squash, blackcurrant squash and coconut containing drinks
Alcohol Dry white wine, sparkling wine, lager, bitter (mild), gin, brandy, vodka, whisky, rum, Baileys and Vermouth, Try to keep your alcohol intake to within the recommended limits	Stout, strong ale, cider, barley wine, liqueurs, red wine, sweet white wine, sweet sherry and alcopops
Hot beverages Tea, fruit teas, green tea Limit to 1 cup of coffee a day Camp coffee and Chai (made with milk from daily allowance)	Horlicks, Ovaltine, Bournvita, cocoa, drinking chocolate, Bovril and Oxo
Nutritional supplements Appropriate supplements will be prescribed if required	Nourishment, Nutriment, Complan and Build Up

If diabetic, please choose no-added sugar, light or diet varieties of drinks.

Herbs and spices

Herbs and spices will also add to your overall potassium intake. The measurements are given as per person serving i.e. multiply the recommended amount by the number of portions the dish is estimated to provide.

Example: 2 teaspoons of garam masala can be added to a curry to feed a family of four

Low (use freely)	Medium (½ tsp)	High (¼ tsp)
Bay leaf	Anise seeds	Amchoor powder
Black pepper	Cayenne pepper	Chilli powder
Cardamom	Cumin seeds	Coconut powder
(ground)	Curry powder	Coriander powder
Cinnamon (ground)	Garam masala	Fennel seeds
Cloves (dried)	Garlic powder	Groundnuts
Coriander leaves	Mint (dried)	Molasses
(fresh)	Parsley (fresh)	Paprika
Fenugreek seeds	Poppy seeds	Parsley (dried)
Garlic (fresh)	Red chilli	Turmeric powder
Ginger (fresh / dried)		
Green chilli		
Lemon		
Mint (fresh)		
Mustard seeds		
Nutmeg (ground)		
Rose water		
Saffron		
Tamarind pulp		
Vinegar		
White pepper		

tsp = tablespoon

Miscellaneous

Low Potassium Foods	High Potassium Foods
<p>Sugars and preserves Sugar and artificial sweeteners Jam, marmalade, honey, fruit spread, golden syrup and lemon curd</p>	<p>Black treacle, chocolate spread, peanut butter and marmite</p>
<p>Sauces and pickles* Vinegar, tomato sauce, brown sauce, mayonnaise, salad cream, tartar sauce, horseradish sauce, soy sauce, mustard and piccalilli * Use these sparingly as they are high in salt Pickles and chutneys are often high in potassium therefore use sparingly e.g. 1 teaspoon</p>	<p>Tomato puree Avoid salt substitutes e.g. LoSalt and supermarket own brands</p>
<p>Soup Homemade soup (recipes are available from the dietitian)</p>	<p>Tinned and packet soups should be avoided as they are high in salt</p>

Information contained in this booklet is correct at the time of printing, and is intended for your specific needs. It should not be passed on to anyone else. Manufacturers are continually changing the ingredients of their products and altering portion sizes. These changes may affect the potassium content of these foods.

Useful websites and reading

www.kidney.org - The National Kidney Foundation provides useful information on kidney disease, treatment and lifestyle

www.kidneypatientguide.org.uk - Kidney Care UK, offers advice and support for those living with kidney disease. Visit the Kidney Kitchen for recipe ideas

www.beamfeelgood.com - Kidney Beam helps people living with kidney disease to feel good through movement, education and wellbeing support

www.patientview.org - If you want to know your most recent blood levels, why not join PatientView? To see your blood test results, click on the 'I want to join' button, enter your details and select 'renal' speciality

Eating Well for Kidney Health - A practical guide and cookbook. H. Jackson, C. Green & G. James

Please ask your dietitian if you would like recipe ideas

If you have any suggestions or comments or queries regarding this leaflet please let your dietitian know.

Dietitian	<input type="text"/>
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What did you think of your care?

Scan the QR code or visit bit.ly/nhsleedsfft

Your views matter



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