

A Guide to a Low potassium diet Incorporating African and Caribbean foods

Approved by

BDA The Association
of UK Dietitians



Renal Nutrition

Specialist Group



Introduction

This diet sheet has been developed by the Renal Nutrition Group, of the British Dietetic Association. The Renal Nutrition Group (RNG) is the leading source of expertise for renal nutrition advice in the UK and is made up from specialist expert renal dietitians.

What is potassium?

Potassium is a mineral that is found naturally in many foods. Some potassium is needed as part of a healthy diet. It is required to ensure healthy working muscles, including the heart.

**Your potassium level should be 3.5 – 5.5mmol/l
(3.5 – 6.0mmol/l if on haemodialysis)**

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

Too much potassium in your blood can be dangerous as it affects the rhythm of your heart and can cause your heart to stop beating if levels are very high.

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

The level of potassium in your blood is controlled by the kidneys. When your kidneys are not working properly, the potassium level in your blood may rise. It is quite common for people with kidney problems to have too much potassium in their blood.

Can I tell if my potassium is high?

There are usually no symptoms to indicate if your potassium is high and the most reliable way to tell is by having a blood test.

What should I do to control my blood potassium levels?

You can control your blood potassium levels by:

- Following a low potassium diet
- Ensuring regular bowel habit as some potassium is removed this way
- If you have diabetes, ensure good blood sugar control
- If you are on dialysis, keeping to your scheduled sessions and times

How do I follow a low potassium diet?

This booklet provides information on foods high in potassium, and those that need to be limited. It offers lower potassium alternatives to keep your blood potassium levels within range. Your dietitian will advise you on the changes that you need to make.

Will the low potassium diet include healthy eating advice?

This resource only focuses on a low potassium diet. We aim to include low potassium foods that are suitable swaps for foods commonly eaten, e.g. doughnut can replace fruit cake. For this reason, some of the foods in the low potassium section may be high in sugar, salt or fat. Please take into consideration any other diet that you may be following when making choices from the suitable/ low potassium columns. If there are any questions, please discuss with your renal dietitian.

Carbohydrate

(Starchy foods)

Carbohydrates, also known as starchy foods, provide energy, vitamins and fibre. You should try to include something starchy at each meal to provide you with energy.

Examples of carbohydrates include:

- Rice, pasta and other grains for example semolina, corn
- Potato, sweet potato, cassava and yam (also known as tubers or ground provisions)
- Breakfast cereals, pap
- Breads

Starchy root vegetables including tubers and ground provisions

Some starchy root vegetables, tubers or ground provisions like potato, sweet potato, cassava and yam are particularly high in potassium and need to be limited in the diet (choose up to one boiled serving per day- see table below). Other starchy foods based on wheat or rice are low in potassium and are good alternatives to choose.

Choose up to one boiled 150g serving per day	Limit
Breadfruit	Baked/fried/roasted/steamed/pressure cooked breadfruit/cassava/plantain/potatoes/sweet potatoes/taro/yam
Cassava	
Plantain/green banana – 100g only	Frozen/oven/shop-bought chips
Potatoes	Instant mash
Sweet potato	Potato products – potato waffle, hash browns, wedges, croquettes
Taro/dasheen	
Yam	

- If you do not routinely include high potassium starchy vegetables in your diet, you may be able to allow for a higher intake of potassium elsewhere in your diet. Your dietitian can discuss this with you on an individual basis.
- If you are having foods made with these ingredients, e.g. plantain fufu or amala made with cassava/gari please include them in the allowance above.

Carbohydrate (Starchy foods)

Cooking instructions for starchy root vegetables

- The starchy root vegetables in the table on page 3 should be boiled in water to lower their potassium content. Discard the water after boiling and do not use for stock, soups, dhals and sauces.
- The skins on potatoes provide a good source of fibre and B vitamins. However, if your potassium levels are often high, peel your potatoes and cut into small pieces before boiling, as this helps to remove more potassium.
- Baking, frying, roasting, and steaming potatoes, tubers, ground provisions and vegetables does not reduce potassium. Pre-boiling helps to remove some potassium before cooking this way.
- Microwaving is only suitable for reheating starchy root vegetables that have previously been boiled.



Rice, pasta and other grains

Rice (includes rice flour, tuwo masa and tuwo shinkafa), semolina, Semovita, pasta, noodles, cornflour, abolo, couscous, kenkey, millet grains, ugali and other grains can be eaten freely

Breakfast cereals

- Cereals made from wheat, oats, corn, rice and corn are lower in potassium and may be eaten regularly e.g. pap,ogi, kooko, akamu, Tombrown.
- Cereals containing bran, dried fruits, nuts and chocolate are higher in potassium and should be limited.
- Milk and yoghurt added to cereals should be counted within your dairy allowance (see dairy section).
- If you have diabetes please choose lower sugar breakfast cereals.



Breads

Bread, rolls, crackers and pitta breads without nuts and seeds may be eaten regularly.

Bread and crackers containing nuts, seeds, coconut, dried fruits and chocolate are high in potassium and should be limited.



Fruit and Vegetables



Fruit and vegetables are a good source of vitamins, minerals and fibre and form a large part of a healthy balanced diet. The potassium content of all fruits and vegetables varies and these are listed in the table below as low, medium, high and very high.

- Aim for a total of 4-5 portions of fruit, vegetables or salad daily or as advised by your dietitian.
- Choose most of your fruits and vegetables from the low or medium columns. If choosing from the high column, you may need to reduce the number of fruit and vegetable portions you have that day.
- Fruit and vegetables listed as having a very high potassium content should be avoided.
- All vegetables should be boiled, rather than steamed or microwaved. Boiling allows some of the potassium to come out into the water. This water should be thrown away and not used for gravy or stock.
- Canned fruit and vegetables should be drained before eating.

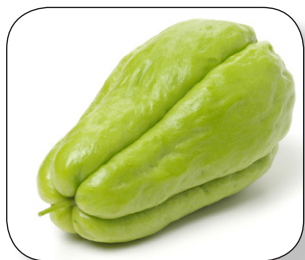
Vegetables and Salad

A portion of vegetables is 80g and boiled unless otherwise stated in the table below. If one portion of vegetables is not taken, then you can swap for a portion of fruit or a handful of salad.

Many African and Caribbean curries use tomatoes as a base. Canned plum tomatoes that are drained are lower in potassium than fresh tomatoes. It is recommended that you use canned whole plum tomatoes and drain off the juice before adding to stews/soups, and avoid tomato puree.

For beans and pulses, please see protein section.

Fruit and Vegetables



Low

Beansprouts 3 tbsp

Butternut squash

Cabbage

Cauliflower 3 florets

Cucumber (raw)

Green beans (canned)

Lettuce (raw) handful

Mixed vegetable (frozen)

Mushrooms (canned)

Okra (canned)

Olives, green, in brine, drained, 20

Peas (canned)

Pumpkin 2 tbsp

Runner beans

Spring onion (raw) 3

Water chestnuts (canned)

Watercress (raw) 40g

tbsp = tablespoon

Medium

Aubergine (fried/baked quarter)

Broccoli 2 medium florets

Butternut squash

Cabbage (raw) 2tbsp

Carrots 1 medium

Celery (raw) 1 stick

Cho-cho/christophene

Coleslaw

Cocoyam leaf

Courgette

Curly kale

Leeks – half a stalk

Mangetout (raw/fried) 2 tbsp

Peas 2tbsp

Pepper (raw) half

Spring greens

Squash e.g. butternut

Sweetcorn (canned, fresh, frozen) 3tbsp

Tomatoes (raw) 1 medium

Tomatoes ¼ of 400g can

High

Ackee (canned)

Amaranth

Asparagus(fried) 3 spears

Brussel sprouts

bitter gourd/karela

cocoyam leaf

Drumstick leaves

Green/French beans

Jute leaves

Mushrooms (raw/fried) 6 medium

Mixed vegetables (canned)

Sorrell 2tbsp

Pumpkin leaves

Spinach (not the baby variety)

Vernonia leaves/bitter leaf

Very High

Amaranth (raw)

Avocado

Butternut squash (roasted)

cassava leaves (raw)

cocoyam leaf (raw)

Drumstick leaves (raw)- check if eating raw

Jute leaves (raw)

Pak choi

Okra (fried)

Spinach, baby variety (boiled/raw)

Taro leaves (raw)

Tomato puree

Vernonia leaves bitter leaf (raw)

Fruit and Vegetables



Fruit

A portion is 80g unless stated otherwise in the table below. If one portion of fruit is not taken, you can swap for a portion of vegetables or a handful of salad. Canned fruit should be drained before eating. As a general rule, dried fruit, fruit or vegetable juices or smoothies should be avoided as they are concentrated sources of potassium.

- Starfruit/carambola can be toxic for patients with kidney disease, please avoid.
- Grapefruit can interfere with some medications, please check with your doctor or pharmacist.

Fruit and Vegetables

Low

Apples 1 small

Blueberries

Cherries (canned) 1/3 of 425g large can tin

Clementine 2 small/1 medium

Fig 1 fruit

Mamee Apple - 1 fruit

Fruit cocktail 1/3 of 415g can

Gooseberries (canned) 1/2 of 300g tin or 3tbsp

Gooseberries (stewed) 2 tbsp

Grapefruit (canned) 1/4 tin

Guava 1/3 of 410g can

Lemon/lime

Lime

Lychees (canned) 6 fruit

Mandarin 1/2 small 298g can

Oranges 1/2 medium

Passion fruit 2 fruit

Peach 1 small

Peach 1/3 of 420g can

Pear (stewed/canned) 2 halves

Pear (canned) 2 halves

Pineapple (canned) 2 rings/12 chunks

Plums (canned) 4 halves

Pomelo 1/4 fruit

Rambutan 8

Raspberries 1/2 300g can

Rhubarb 1/3 of 539g can

Satsuma 1, 2 small

Strawberries 1/2 of 420g can

Tangerine 1 medium

Watermelon 1/2 slice

Medium

Apples baked 1 medium

Apricots (canned) 3 halves

Blackberries 16

Blackberries (stewed) 2 tbsp

Blackcurrants (canned), 2-3 tbsp

Cherries 20

Grapefruit 1/2 fruit

Grapes 16

Guava 1 small

Kiwi fruit 1 medium

Kumquats 10

Loquats 6

Lychees 5

Mango 2 slices

Melon 1/2 slice

Papaya 1/2 slice

Pear 1 small

Physalis 10 fruit

Pineapple 1 slice

Plums (stewed) 3 halves

Raspberries 16

Raspberries (stewed), 2 tbsp

Sapodilla 1 fruit

Strawberries 7-9 fruit

Tamarind sweet

tbsp = tablespoon

High

Apricots 2

Damsons 3 fruit

Jackfruit

Nectarine 1 medium

Orange 1 medium

Ortaniques 1

Plum 2 small

Pomegranate 1/2

Prickly pears 1 medium

Quince 1/2 fruit

Sharon fruit/persimmon 1

Sugar apple (custard apple) 1/2 medium

Tamarillos 1 fruit

Soursop

Very High (avoid)

Avocado

Banana

Baobab

Blackcurrants

Coconut

Dates

Grenadillas/granadilla

Prunes

Redcurrants

Rhubarb (stewed)

Whitecurrants

Protein



Protein is necessary for growth and repair and the building and maintaining of muscle. Your dietitian will suggest the amount of protein you require daily.

General advice on protein foods:

- Choose either lean meat, chicken, fish, eggs, beans or lentils.
- Cured, smoked, salted, tinned meats, chicken, fish are high in salt. These foods should be kept to a minimum.
- A portion of beans, pulses, dhal, Quorn or soya products can replace a portion of meat/fish/chicken/eggs. Canned and drained pulses and beans tend to be lower in potassium than dried varieties.
- Beans and peas such as kidney beans, gungo peas and foods that contain beans such as akari, rice and peas, waakye and moin-moin can be high in potassium. Please discuss these with your dietitian as this will depend on what your potassium levels were when you had them in the diet and also your current kidney function.
- Nuts and seeds (groundnut, egusi, akpi jansang, wama) are high in potassium and may need to be restricted. If you need to use small amounts in cooking, please discuss with your dietitian.



Soups

- Soups made with nuts or seeds such as groundnut soup, palm nut soup and egusi soup can be high in potassium. If you are using soups made with tubers e.g yam fufu, please count within the starchy tubers/ground provisions allowance.
- A light soup may be a lower potassium alternative. If your potassium is high and you are having soups with nuts or seeds, please discuss with your dietitian.
- If you are on a fluid restriction, then please include soups within your fluid allowance.
- If your potassium levels are well controlled and fluid is not a concern, nourishing soups can be included in your diet with careful planning.

Dairy Products and milk alternatives

Milk and dairy products play an important role within our diet as they contain protein and essential nutrients such as calcium, which is needed for healthy bones. Dairy alternatives such as plant and grain based milks are a lower source of protein.

- Milk is high in potassium therefore should be limited.
- A recommended allowance of up to 300ml (1/2 pint milk) can be taken daily. This includes cow's, sheep's and goat's milk.
- Milk in cereals, milky puddings, yoghurts and milk-based sauces should be counted within this allowance.
- Most rice and oat milks are low in potassium.
- Milk made from nuts containing less than 10% nut, for example almond milk, is low in potassium.
- Unsweetened soya milk contains approximately half the amount of potassium compared to dairy milk.
- Milkshakes, dried milk powder, evaporated milk, condensed milk, coconut milk and creamed coconut are all high in potassium and therefore should be restricted.
- All types of cream and cheese may be eaten as usual on a low potassium diet.



Snacks



Snacks

Some snacks can be high in energy (calories), salt, sugar and fat such as confectionary, cakes and crisps. Therefore they should make up only a small part of your overall diet.

However, if you have a poor appetite or are losing body weight, high calorie snacks can be helpful in maintaining or improving your weight. Your dietitian will be able to guide you in making the best snack choices.

Savoury snacks

- Potato, plantain, taro and vegetable crisps are naturally high in potassium and should be avoided.
- Crisps/snacks made with lentil/soya/quinoa flour are also high in potassium.
- Crisps/snacks made from corn, wheat or rice can be lower in potassium.
- However some potato and non-potato snack varieties have potassium chloride added as a salt substitute. If potassium chloride appears on the ingredients list please avoid.

Low

Cream crackers, 2

Cheese flavoured crackers

Popcorn

Pretzels

Tortilla chips, 1 small packet

High

Bombay mix

Kelewele

Kuli Kuli

Nuts/seeds (if you are adding to soups/stews e.g. egusi, ogbono- please discuss with your dietitian)

Potato, cassava, plantain crisps

Snacks



Sweet snacks

Healthy eating advice includes reducing your sugar consumption and choosing low sugar or sugar-free varieties. Snacks containing chocolate, evaporated/condensed milk, nuts, coconut or dried fruit are high in potassium and should be limited.

If you have diabetes, it is recommended you limit your intake of sugary foods.

Biscuits - Low

Biscuits (plain, wafer, jam or cream) 2

Chinchin

Cakes - Low

Bulla 1 slice

Cake (plain, cream) 1 slice

Doughnut 1

Fruit pie 1 serving

Plain scone

Sweets - Low

Jelly

Meringue

Sweets

Boiled/chewy sweets, fruit pastilles

Jellies, marshmallows, mints, sherbert

Popcorn (sweet) 28g or ½ bowl

Turkish Delight

Biscuits - High

Biscuits containing nuts, chocolate, dried fruit, coconut

Cakes - High

Banana Bread

Chocolate, dried fruit

Flapjack

Rich fruit cake

Cakes/scones with nuts, chocolate, dried fruit, coconut

Sweets - High

Fruit gums

Liquorice Allsorts

Shuku Shuku

Peanut or nut brittles

Trifle

Sweets containing nuts, chocolate, dried fruit, coconut

Milky puddings are low when including in your milk allowance.

Custard, ice cream, yoghurt, rice pudding

Drinks



If you are following a fluid restriction, ensure you count your entire fluid intake as part of your daily allowance.

Please consult your doctor if you are unsure of your fluid allowance.

Non-alcoholic drinks

Low

Fizzy drinks

Fruit squash

Malted non-milk drink (e.g. Supermalt or Mighty malt)

Tonic water

Teas, all varieties

High

Chocolate malted drink e.g Milo

Coconut water

Coffee

Drinking chocolate

Evaporated milk/condensed milk

Fruit and vegetable juices/smoothies

Malted drink powder made with milk

Milkshake

Noni juice

Peanut punch

Alcohol

Low

Liqueurs

Shandy

Sherry

Spirits

Vermouth

High

Beer, bitter

Cider

Lager

Port

Stout, Guinness

Wine

Miscellaneous



Some common miscellaneous foods are listed here. If you use these foods regularly or use large quantities, please seek advice from your dietitian.

Akaun/akawn (Nigerian Potash) is high in potassium, so avoid using this as a meat or okra tenderiser.

Choose

Gravy granules/stock cube

Herbs e.g. coriander, parsley

Honey/syrups

Jam/preserves/lemon curd

Mayonnaise/salad cream

Mustard/mayonnaise

Pickles/Chutneys

Spices e.g. garlic, chilli

Stuffing without dried fruit

Vinegar

Limit

Brown sauce

Chocolate spread

Instant soup

Nut butters

Tomato ketchup

Tomato puree

Yeast extract e.g. Marmite/Vegemite

Herbs, curry spices, coriander, chilli, garlic and ginger can be used as required.

Processed foods are high in salt, and should be limited for example. soya sauce, stock cubes and MSG (monosodium glutamate). Salt substitutes e.g. Lo salt, So-Lo, Low sodium salt contain potassium in place of sodium. It is important that all salt substitutes are avoided.

If you need further information on a low potassium diet, please contact your dietitian.

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