

Eating more plant-based foods

when you have
Chronic Kidney Disease (CKD)



Who is this leaflet for?

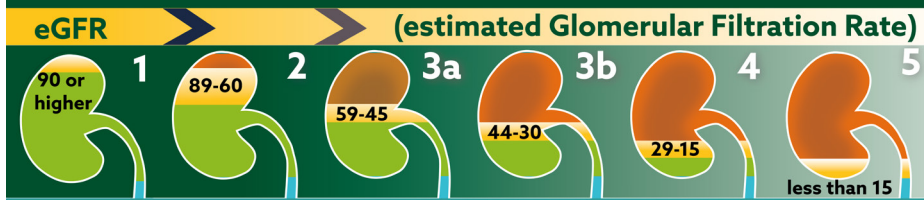
This is for everyone living with CKD who wants to eat more plant-based foods. **If you have advanced CKD (stages 4 and 5), you may benefit from the advice of a kidney dietitian.**

This information leaflet is not for people having dialysis.

What is CKD?

Chronic Kidney Disease is a condition where the kidneys no longer work very well. CKD is divided into stages: Stage 1 is the earliest stage and stage 5 is the most advanced. Your eGFR shows where you are along the CKD journey.

Stage of chronic kidney disease



Stage of chronic kidney disease	eGFR (estimated Glomerular Filtration Rate)	Description
1	90 or higher	Normal kidney function with other signs of kidney damage
2	89-60	Mild loss of kidney function with other signs of kidney damage
3a	59-45	Mild to moderate loss of kidney function
3b	44-30	Moderate to severe loss of kidney function
4	29-15	Severe loss of kidney function
5	Less than 15	Kidney failure not receiving dialysis

You can find more information on CKD and eGFR here:
<https://www.nhs.uk/conditions/kidney-disease>

What are plant-based foods?

Choosing to eat more plant-based foods benefits your kidneys and general health.

Healthy plant-based foods include:



Eating a healthy plant-based diet doesn't mean you have to give up animal-based foods. It is making the choice to eat less animal-based foods and more plant-based foods.

For a healthy diet, try to limit foods that are ultra-processed.

What are ultra-processed foods?

When food is called 'Ultra-processed', it means it has been changed a lot. Typically, these foods are prepared in factories. They have added chemicals, fat, sugar, and salt, which change appearance, texture and shelf life but make them less healthy. They often have words you may not recognise in the ingredients list.

Examples of foods that can be ultra-processed: fizzy drinks, crisps, sweets, ready meals, biscuits, cakes, pastries, processed meat products and even some plant-based meat alternatives.



Processed food is not always unhealthy. Fermenting, freezing, pickling, tinning and chopping are all types of processing that can be healthy.

Benefits of plant-based eating for CKD

The latest guidelines recommend a plant-based diet to **slow the progression of CKD**.

There are many causes of CKD. But the progression through the CKD stages can be linked to your health and lifestyle. Smoking, having high blood pressure, uncontrolled diabetes, obesity, or heart disease can all affect kidney function.

Managing these conditions can help to slow down the progression of your CKD.

A plant-based diet is great for your health. It's packed with antioxidants that protect your cells, promotes healthy gut bacteria, and improves gut health. Eating more plants can reduce inflammation, lowering the risk of heart disease and other long-term conditions. Plus, it can help with weight loss and make weight management easier. Diabetes is easier to manage when plants are a large part of the diet.

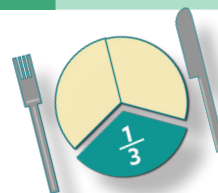
There are **other benefits** to eating a plant-based diet. **Plant-based foods are often cheaper than animal-based foods. For example, beans and lentils cost much less than meat and fish.** Plant-based food is much more **environmentally friendly** than meat and dairy.

A plant-based diet can be good for your health, your wallet, and the planet.



Foods to include:

Plenty of fruit and vegetables



Aim for 5 portions of vegetables and fruit every day, more if possible.

Vegetables and fruit should make **up one third** of the food you eat every day. Try adding to every meal and make them part of your snacks.

Fresh, frozen, tinned, dried, juice and smoothies all count.

Due to the higher sugar content, **limit** dried fruit to 30g a day and juice or smoothies to 150ml a day.

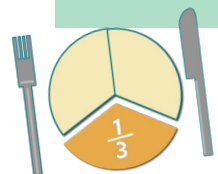


Note: Avoid star fruit.

It has a toxin which can be harmful to those with kidney disease.



Starchy foods (carbohydrates)



These are foods like breads, pastas, potatoes, rice, and noodles.

Enjoy a variety of starchy foods, aiming for a third of your daily diet.

Where possible choose **high fibre** and **whole grain**, such as **whole wheat pasta**, **brown rice**, and **wholemeal breads** or **chapatis**. **High fibre grains** include oats, barley, quinoa, buckwheat, bulgur wheat, millet, and whole wheat couscous.



You could also eat skin-on potatoes, sweet potatoes, plantains or yams.

Frozen chips, potato waffles and croquettes are often ultra-processed and should be **limited**.

Instead opt for baked, boiled or mashed potatoes, or homemade chips.

At breakfast, enjoy oats or a corn porridge, wholegrain cereals such as wheat biscuits, shredded wholegrains, or a no-added sugar muesli.



Foods to include:

Protein

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Plant-based proteins include pulses (peas, beans, and lentils), Quorn™, tofu, tempeh, soya beans, soya chunks, unsalted nuts and seeds.



Pulses can include:

- All kinds of lentils.
- Some high protein peas like chickpeas, pigeon peas, yellow split peas.
- All kinds of beans like kidney, haricot, butter, black, cannellini, edamame, pinto.

Pulses can be dried, tinned or ready to eat in a pouch, but **limit those with added salt.**



You can include Mycoprotein (Quorn™), seitan, and other meat alternatives. But it is best to only have these occasionally. They are processed foods and are **often high in added fat, salt and other additives.**

Omega-3 fats

Oily fish is a source of omega-3 fats; these are essential fats that support our day to day function.

If you do not eat oily fish, you can get omega-3 by having one of the following each day:



Three whole walnuts



One tablespoon of chia seed



One tablespoon of ground linseed (flaxseed)



Two tablespoons of hemp seed

Foods to include:

Other fats and oils

For cooking, choose a vegetable oil such as rapeseed or olive oil. These are high in unsaturated fats. Unsaturated fats are healthier for your heart.



Limit palm oil and coconut oils; these are high in saturated fats which are less healthy.

All fats and oils (including unsaturated fats) are high in calories so only use a small amount to avoid unwanted weight gain.



For more information on fats and health :

<https://www.bhf.org.uk/information-support/support/healthy-living/healthy-eating/fats-explained>

Dairy or plant-based drinks

If you want to have a plant-based milk, such as oat or soya drinks, choose unsweetened varieties.

Consider ones with added **calcium and vitamin D**, or try to get extra calcium from the rest of your diet. **Check out the links at the end of this leaflet for more information on how to do this.**

Be aware that **some plant-based drinks** have a much **lower** amount of protein, vitamins and minerals than milk. They vary a lot in sugar content. Usually **unsweetened soya drinks** are closest in protein content to milk.

Some plant milks contain **additives** that can be **harmful to the kidneys in large amounts**. You can find information on nutritional content, sugar, salt and additives if you **check the label**.



Foods to include:

Fluids

Stay well hydrated. Drink enough to keep your urine a pale straw colour.

Your kidney team might ask you to change how much you drink depending on your treatment.

Think about what you drink.

- **Water is best.**
- Tea, herbal tea, coffee and sugar free squash can **all count as fluid**.
- **Limit** sugary and fizzy drinks and avoid adding sugar to your drinks.
- **Limit** fruit juices and smoothies to 150ml a day - they are high in sugar.
- Caffeine can **increase your blood pressure**. Depending on strength limit to 2-3 coffees, or 5-6 teas a day.



Limit foods high in fat, sugar, and salt

Examples: cakes, pastries, biscuits, sweets, ice cream, chocolate, crisps, ready made cooking sauces (e.g Bolognese sauce), ketchups, relishes, mayonnaise, fast foods, convenience foods etc.



This doesn't mean you can never have these foods, but **better to have them in small amounts and less often.**

Protein, potassium and phosphate

Sometimes people with **CKD** need to **reduce** foods rich in protein, potassium and/or phosphate, but not always.

If your kidney team has advised you to reduce one of these, **ask to see a kidney dietitian**. A kidney dietitian can help you manage this while eating more plant-based foods.

Salt

Adding less salt to your meals and limiting salty foods help to lower your blood pressure. This can keep your kidneys healthier for longer.

Salt occurs naturally in foods like cheese, milk and meat. It is already added to foods like bread, biscuits, butter, olives, sauces and some tinned food.

Counting the salt already in these foods, **eat no more than 5g (one teaspoon) of salt a day.**

Tips to reducing salt in your diet:

Add less salt to home cooking or at the table. This includes all types of salt, e.g. rock, sea, Himalayan pink, garlic and kosher. Aim towards adding none at all.

- **Choose** zero salt or reduced salt stock cubes or granules. Or try making your own stock.



- Experiment with a variety of **spices, herbs** (dried and fresh), **lemon or lime juice**. Be careful with seasoning mixes as these can already contain a lot of salt.
- **Limit** packaged, convenience, and take away foods.
- When buying, **read nutritional information on food packaging** and choose the one with the least amount of salt.
- **Give your taste buds time to adapt to less salt.** Remember it may take 4-6 weeks.

Cook meals from scratch wherever possible.



Salt

75% of the salt we eat is already added to the foods we buy.

Most packaged foods have a colour coded 'Traffic Light Symbol' on the front of their packaging. Food that is **high in salt is coloured red**. It is best to **avoid** or **limit** those that are coloured red for salt. **Choose more greens and ambers instead.**

If there isn't a traffic light symbol check the nutritional information on the back of food packaging.

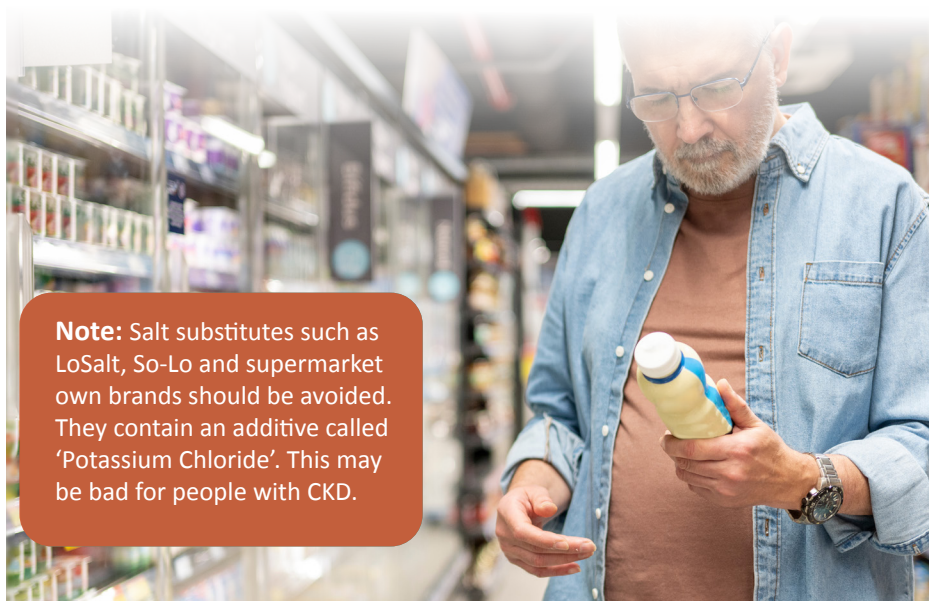
Each serving (150g) contains				
Energy 1046kJ 250kcal	Fat 3.0g LOW	Saturates 1.3g LOW	Sugars 34g HIGH	Salt 0.9g MED
13%	4%	7%	38%	15%
of an adult's reference intake				
Typical values (as sold) per 100g: 697kJ/ 167kcal				

What to look for on the nutritional information:

Check the salt 'per 100g' section, in the nutritional information table.

Then compare with the table below:

Per 100g	Low	Medium	High
Salt	0-0.3g	0.3-1.5g	More than 1.5g



Note: Salt substitutes such as LoSalt, So-Lo and supermarket own brands should be avoided. They contain an additive called 'Potassium Chloride'. This may be bad for people with CKD.

You might need to think about:

Loss of appetite

Sometimes people in the later stages of CKD lose their appetite.

If you notice any **sickness** or **taste changes**, or have **lost weight without meaning to**, ask your **GP** or **kidney team** if you can see a dietitian.

Vitamin and mineral supplements

There are **no vitamin and mineral supplements required for CKD**.

If you do not eat any animal foods or drinks, you will need a regular source of **vitamin B12**, and **iodine**.

If you wish to take any supplement or herbal remedy, then it is best to **discuss this with your kidney doctor or dietitian**.

Vitamin D supplements are advised for everyone in the winter months.

For more information on supplements in a **vegan diet** check:

<https://www.vegansociety.com/resources/nutrition-and-health/nutrients>

Avoid taking a fish liver oil supplement as these may cause unsafe levels of vitamin A in the body for people with CKD.

Alcohol

If you want to drink alcohol, check with your pharmacist if alcohol is **safe with your medication**. If it is safe, then keeping to the **government guidance** will **lower your risk of harm**.

This says:

- Have less than 14 units per week.
- Spread drinking over three or more days.
- Have several alcohol-free days per week.

One unit can be smaller than you think.

Check <https://www.drinkaware.co.uk/> for more information.

If you do not drink alcohol there is **no health benefit to starting**.



Getting started

If you're keen to eat more plant foods, try making a few changes until they become a habit. Gradually add in more changes.

Here are some examples of healthy swaps you might like to try:

Add + Add fruit and vegetables to every meal, such as fruit on cereal, salad in sandwiches and vegetables with main meals.



Enjoy Enjoy fruit or vegetables as a snack. Perhaps with a dip such as hummus.



Try Try oats, no-added sugar muesli, or a wholegrain cereal instead of cereals with added salt and sugar.

Choose wholemeal, wholegrain or whole wheat bread, rice and pasta instead of white varieties.



Try a variety of wholegrains such as; Quinoa, millet, buckwheat, bulgur wheat, barley, sorghum, or fenugreek.



Try

Replace oven chips with homemade skin on wedges or chips cooked in the oven or air fryer. Other options are boiled or jacket potatoes.



Swap



Getting started

Try making some meat swaps.

For example, swap a beef burger for a homemade bean burger.



Swap



Replace your beef in spaghetti Bolognese, cottage pie or chilli with beans or lentils. For example, try lentil Bolognese, lentil cottage pie or a bean chilli.



Replace



In some recipes replace just half of your meat with lentils, beans or peas.

$\frac{1}{2} + \frac{1}{2}$



Try topping your stir fry with nuts, or adding chestnuts to casseroles.

Top



Swap



Try some new healthy vegetarian recipes just once or twice a week until that becomes a regular habit, then introduce more vegetarian meals.

Swap



Swap any sugary or fizzy drinks for water or sugar free squash.

Plant-based meal ideas

If you're still not sure where to start, then the below meal ideas might help.

Breakfast

Plant-based yoghurt, fruit and oats, low sugar granola or muesli.



No-added sugar granola or muesli with added fruit nuts and seeds.



Wholegrain cereals such as Shredded Wheat or Weetabix with added fruit nuts and seeds.



Wholegrain toast topped with Scrambled tofu and grilled tomato or mushrooms.



Oat or corn porridge or overnight oats with added fruit nuts and seeds.



Wholegrain toast with reduced salt/sugar baked beans.



Plant-based meal ideas

Lunch

Rice/pasta/buckwheat or noodle and bean salad.



Vegetable and/or lentil/ split pea soup with a wholegrain roll.



Wholemeal pitta or wrap with hummus and salad.



Bean and rice burrito with salad.



Coronation chickpea in a wholegrain sandwich with salad.



Nigerian Moin Moin or bean stew and rice.



West African Vegetarian Egusi soup with gari.



Plant-based meal ideas

Dinner

Vegetable and/or lentil/tofu curry with wholegrain rice or rice and peas.



Vegetable and or bean chilli with wholegrain rice.



Vegetable risotto.



Lentil dahl and wholegrain rice with vegetables.



Lentil Bolognese with whole wheat pasta, brown rice, quinoa, or skin-on potato.



Bean burger in a wholemeal bun with salad.



Vegetable pasta bake or cottage pie with side salad.



Tofu stir fry with vegetables and wholegrain noodles or rice.



African meatless groundnut stew with vegetables and rice.



Plant-based meal ideas

Desserts

Fresh fruit, such as pear, apple, small orange or clementine.



Drained tinned fruit (in juice, not syrup), baked fruit or stewed fruits with a no-added sugar plant-based yoghurt.

Fruit based crumble (made with a wholemeal crumble topping).



Snacks

A piece of fruit.



Plant-based yoghurt.



Hummus and oat cakes, rice cakes or wholegrain cracker.



A small handful of unsalted nuts.



Vegetable sticks with a plant-based dip.



Useful Resources



Vegetarian, vegan and plant-based diets:

<https://www.bda.uk.com/resource/vegetarian-vegan-plant-based-diet.html>

Recipes



<https://www.kidneycareuk.org/about-kidney-health/living-kidney-disease/kidney-kitchen/recipes/>



Thai vegetable stir fry with rice

British Heart Foundation recipe finder:

<https://www.bhf.org.uk/informationsupport/support/healthy-living/healthy-eating/recipe-finder>



Pear and raspberry crumble

Diabetes UK Recipe finder:

<https://www.diabetes.org.uk/guide-to-diabetes/recipes>



Air fryer onion baji

Useful Resources

Calcium:

Vegan Society

<https://www.vegansociety.com/resources/nutrition-and-health/nutrients/calcium>

Look for label checking information on the BDA site.

<https://www.bda.uk.com/resource/food-labelling-nutrition-information.html>



My notes:

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when you have
Chronic Kidney Disease (CKD)

My dietitian is:

Contact details:

