

Healthy living with a kidney transplant

Information for patients, relatives and carers

① For more information, please contact:

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Healthy eating is important for good health

One of the benefits of a successful transplant is that you can enjoy a more varied diet.

After your transplant, once your wound has healed and you are eating normally, this is a good time to think about your diet and promote a healthy lifestyle. By following a healthy balanced diet you can reduce your risk of cardiovascular disease, hypertension, and diabetes. This will also help maintain a healthy weight. It is also important to consider other lifestyle choices such as moderating alcohol intake and exercising.

Managing weight gain

Weight gain is common after transplant. This is due to relaxed dietary restrictions and a general sense of well-being. It is also due to potential steroid induced hunger.

Most weight gain has been found to occur during the first 12 months after transplantation. Dietetic support and advice are available to you to help you achieve a healthy lifestyle after your transplant. This can help you to avoid gaining excessive weight.

If you are concerned that you are gaining weight, ask to see your renal dietitian.

New-onset diabetes after kidney transplantation

New-onset diabetes after kidney transplantation is sometimes caused by the medications you are taking for your transplant. However, you are more likely to develop diabetes if you are overweight.

A healthy balanced diet can help prevent excessive weight gain and reduce the risk of developing diabetes. If you do develop diabetes, you don't need to follow a special diet; a healthy balanced diet is advised. Support and advice will be provided by your dietitian if required.

Other resources to help with weight loss:

NHS Choices (Lose weight-Better health)

<https://www.nhs.uk/better-health/lose-weight/>

This provides links to the free NHS Weight Loss Plan as well as other free weight loss plans and programmes.

WW (The new Weight Watchers)

<https://www.weightwatchers.com/uk>.

This provides a link to the Weight Watchers programmes and registering for their app.

Slimming World

<http://www.slimmingworld.co.uk> This provides a link to local group meetings or their digital service.

Principles of a healthy lifestyle

- Try to choose a variety of different foods to help you get the wide range of nutrients your body needs to stay healthy and work properly
- Have regular meals including starchy carbohydrates at each meal
- Eat plenty of fruit and vegetables
- Include oily fish
- Limit salt intake
- Try to cut down on foods and drinks with lots of sugar/fat – choose low fat or reduced sugar foods where possible
- Maintain a healthy weight
- Limit alcohol intake
- Take regular activity

The Eatwell Guide

The Eatwell Guide can help you to understand the different types of food that make up a healthy diet. It also shows the proportions of these foods that should be eaten to have a well well-balanced and healthy diet.

A separate Eatwell Guide can be provided in paper format by your dietitian. An interactive version of this is available on the NHS website:

www.nhs.uk/live-well/eat-well/food-guidelines-and-food-labels/the-eatwell-guide/

Potatoes, bread, rice, pasta and other starchy carbohydrates

Starchy foods should make up just over a third of the food we eat. They provide us with energy and can be a source of important nutrients including calcium, iron and B vitamins. Aim to include one food from this group at each mealtime and eat regularly. Where possible, choose wholegrain/higher fibre varieties of these foods with less added fat, salt and sugar.

Why choose wholegrain?

Wholegrain starchy foods contain more fibre than white or refined foods. Evidence is growing that eating wholegrains regularly as part of a healthy diet and lifestyle may help to reduce the risk of many common diseases. These include heart disease, stroke, type II diabetes. These diseases also include some forms of cancer, such as bowel cancer. Wholegrains are also digested slowly and can make us feel fuller for longer.

Wholegrain foods include:

- Wholemeal/wholegrain/granary/seeded breads, pittas, chapattis.
- Wholewheat pasta.
- Brown rice or wholegrain basmati rice.
- Wholegrain breakfast cereals or whole oats (such as Weetabix, Shredded Wheat, Branflakes, Porridge) – choose lower salt and sugar varieties.

Fruit and vegetables

Fruits and vegetables are a good source of vitamins, minerals and fibre. Aim to have a variety of at least five portions of fruit and vegetables each day. They can include fresh, frozen, dried or tinned (in natural juice/unsalted water) varieties.

What is a portion?

A portion is 80g of fresh, tinned or frozen fruit and vegetables, or 30g of dried fruit. Some portions only count once in a day such as 150ml fruit juice/vegetable juice or smoothie, or 80g of beans and pulses. Some examples are listed below:

- One medium apple/pear/banana/peach (80g)
- Handful of strawberries/grapes/cherries (80g)
- One heaped tablespoon of dried fruit (30g)
- Two satsumas/plums/kiwis
- Handful of vegetable sticks
- Two florets of broccoli or cauliflower
- Three heaped tablespoons of peas, sweet corn, cooked vegetables
- A handful of cherry tomatoes
- Cereal bowl of mixed salad
- One medium glass (150ml) of fresh fruit juice (only one glass per day can be counted as a portion)
- Beans and pulses: three heaped tablespoons (80g) (count as a maximum of one portion per day)

How can I include more fruits and vegetables in my diet?

- Have fruit or raw vegetables as snacks
- Add salad to your sandwiches
- Include fruit in puddings and cereals
- Store tinned/frozen vegetables in water so they are available to add to meals
- Make soups with leftover vegetables

Beans, pulses, fish, eggs, meat and other proteins

Protein is used for building and repairing the body and so it is important to eat some foods from this group every day.

Good sources of protein are:

- Beans and pulses - such as lentils, chickpeas, split peas
- Fish - aim to have two portions (2 x 140g) per week. One of these should be oily such as mackerel, salmon, fresh tuna (tinned tuna does not count as an oily fish), sardines, pilchards.
- Eggs
- Poultry - such as chicken, turkey, duck, goose
- All meat - such as lamb, beef, pork, fresh or frozen. Try to avoid having a lot of processed meats because these are usually high in fat and salt. Processed meats include sausages, bacon, cured/smoked meats and reformed meat products.

This food group can add extra fat and calories to the diet. You should try to choose low fat/ lean varieties. Eat less red and processed meat and avoid adding extra fat when cooking. It is best to cut off visible fat and remove skin from meat/poultry.

Beans and pulses are naturally low in fat, whilst being high in protein, fibre, vitamins and minerals. They are a good alternative to meat.

Dairy foods and alternatives

Try to have some milk and dairy foods (or dairy alternatives fortified with calcium) each day, such as cheese, yoghurt and fromage frais. Aim to choose lower fat and lower sugar options. These foods are a good source of protein and an important source of calcium, which helps keep our bones healthy.

Your calcium needs post-transplant

The risk of bone fractures in people who have had a kidney transplant is higher than that in the general population. Post-menopausal women are most at risk of increased bone loss.

Including enough calcium in your diet is an important part of keeping your bones healthy.

Try to include calcium rich foods, aiming for 1000mg (milligrams) daily or 1300mg (milligrams) for post-menopausal women:

Sources of calcium	Quantity	Calcium (mg)
Milk (all types)	200ml	240
Calcium enriched milk alternatives e.g. rice, soya, oat, nut and coconut	200ml	240
Cheese*	30g (matchbox size)	220
Yoghurt	120g	200
Soya bean curd/tofu (Only if set with calcium chloride (E509) or calcium sulphate (E516), not nigari)	60g	200
Calcium fortified cereals	30g	130-150
Hot chocolate (light)	25g serving in 200ml water	200
Sardines (with bones)	Half a tin or 60g	260
Pilchards (with bones)	60g	150

*NB – cheese is a high salt food

Are milk and dairy products high in fat?

Some dairy foods are high in fat and saturated fat. It is advisable to choose lower fat options. Low fat dairy products have as much calcium as the full fat versions.

For example, use:

- Skimmed/semi skimmed/1% fat milks
- Reduced fat hard cheese/cottage cheese/spreadable cheese (Have no more than 100g per week as it is high in salt)
- Low fat/diet/light yoghurts
- Plain low fat yoghurt or fromage frais in place of cream, sour cream or crème fraîche in recipes

Vitamin D

Vitamin D helps the body absorb calcium from foods. Good dietary sources of vitamin D include:

- Oily fish such as mackerel, salmon, fresh tuna (tinned tuna does not count as an oily fish), sardines, pilchards, trout, herring
- Eggs, meat, offal and milk contain small amounts
- Margarine, some breakfast cereals, skimmed milk powder and some yoghurts are 'fortified' with vitamin D

The action of sunlight on the skin is also an important source of vitamin D, particularly between the months of April and September. However, after a transplant it is recommended to keep covered up or wear sun block. This may mean that transplant recipients spend less time in the sunshine and therefore are at increased risk of vitamin D deficiency. Your kidney doctor will let you know if vitamin supplementation is appropriate for you.

Oils and spreads

Changing the type and amounts of fats in your diet

Reducing the overall amount of fat in your diet can help you to maintain a healthy weight. Replacing saturated fat with unsaturated fats can help to look after your heart and blood vessels. Choose unsaturated oils and spreads and use in small amounts.

Saturated fats

Saturated fats come mainly from animal sources, such as fatty meats. They are also included in butter, cheese, pastry, cakes and biscuits.

Unsaturated fats

Unsaturated fats come from plant sources such as olive and vegetable based oils and spreads. These include olive oil, rapeseed oil, vegetable oil and sunflower oil. Choosing unsaturated fat spreads, as opposed to butter, is a good way to reduce your saturated fat intake.

Salt and your health

It is very important to continue to limit the salt in your diet after a kidney transplant. A high salt intake is linked to risk factors for both heart disease and worsening kidney function. Other consequences include high blood pressure, excess protein in the urine (proteinuria) and fluid retention. Cutting down the amount of salt you eat by a fairly small amount can help.

What's the daily limit?

It is recommended that we consume no more than 6g of salt a day (one teaspoon). The salt that occurs naturally in fresh foods is enough to provide the small amount of salt that your body needs.

Where does salt come from and how can I reduce my intake?

Not adding salt to foods is a small, but important step. It helps you get used to a less salty taste.

Even if we do not add salt to our food we are generally still eating too much. This is because about three quarters of the salt we eat is hidden in processed foods. Manufacturers add salt to food as a preservative and flavour enhancer. These foods don't necessarily taste salty so it is important to look at the food labels to help you make lower salt choices. Cutting down on processed foods can also make a big difference to your intake.

What about salt substitutes?

We do not recommend that you use a salt substitute. Salt substitutes are made from a mixture of potassium chloride and sodium chloride.

Foods high in salt

The following foods are almost always high in salt.

Eat them less often or have smaller amounts:

- Anchovies
- Bacon
- Gravy granules
- Ham
- Olives
- Packet soups and noodles
- Pickles
- Prawns
- Processed and tinned meats
- Processed cheese and cheese spreads
- Salami and chorizo
- Salted and dry roast nuts
- Salt fish
- Smoked meat and fish
- Soy sauce and bouillon
- Stock cubes
- Yeast extract and Marmite

Foods to check for the salt content

The salt content of the following foods can vary between brands. Reading food labels will help you to choose the brand or variety that is lower in salt.

- Baked beans
- Bread and bread products e.g. crumpets, bagels, pitta and tortilla wraps
- Breakfast cereals e.g. Cornflakes, Cheerios, Rice Krispies, Branflakes, Fruit and Fibre
- Cakes and biscuits
- Cheese (only have small quantities of hard cheeses – up to 100g per week)
- Crisps, corn and potato snacks
- Condiments e.g. tomato ketchup, salad cream, mayonnaise, brown sauce, ready-made mustard, chutney, relish
- Filled pasta, tinned pasta
- Pasta sauces
- Pastries – both sweet and savoury
- Pizza
- Potato products e.g. chips (if salt added), instant mash, potato croquettes
- Ready meals
- Soups – tinned and fresh
- Sandwiches
- Sausages and burgers

Low salt food choices

Choosing fresh unprocessed foods and cooking from scratch (where possible) is ideal. The following foods can be included within a healthy low salt diet:

- Fresh meat e.g. beef, pork, lamb, chicken. This includes fresh meat that has been frozen.
- Fresh/frozen or tinned fish e.g. cod, plaice, trout, salmon, haddock
- Eggs, pulses (tinned in unsalted water) and lentils
- Potatoes, rice, pasta, and unsalted crackers and crispbread
- The lowest salt cereals are; Shredded Wheat, Puffed Wheat, Honey Monster Puffs, Weetabix, Porridge and Weetaflakes
- Fruit and vegetables – fresh, frozen, juiced or tinned without salt
- Milk and yoghurt
- Cottage cheese, cream cheese, ricotta cheese, quark
- Herbs, spices, pepper, vinegar, garlic, mustard powder
- Home-made soups using low salt stocks
- Low salt yeast extract, gravy browning or stock cubes
- Unsalted crisps and nuts

Reading the labels

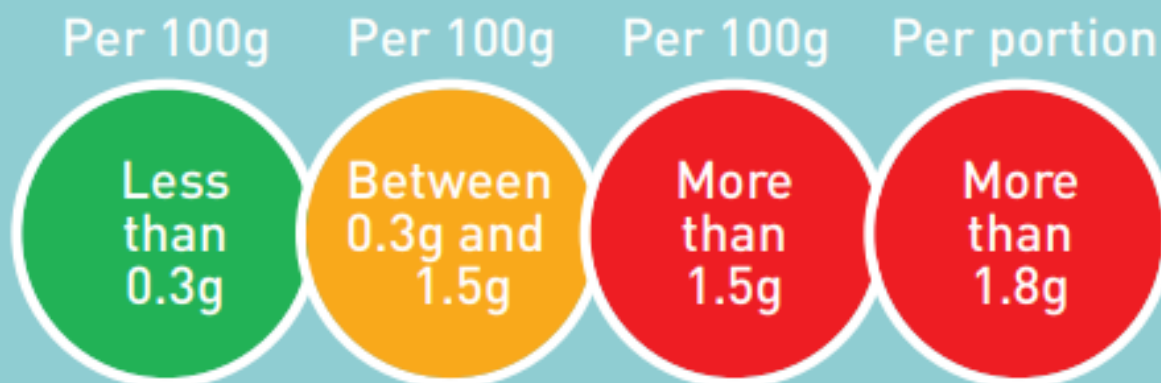
Nutrition labels are usually found on the back or the side of food packaging. The full nutritional information is provided per 100g of the product. Sometimes they also tell you the information per serving or per pack.

Some foods now have the nutritional information displayed on the front of the packaging. This is usually given per portion. Be aware that the serving on the pack may be different to the amount that you plan to eat.

Some products combine colour coding with the nutritional information. Colour coded labelling makes it easy to see at a glance if a product is high (red), medium (amber) or low (green) in certain nutrients. This includes salt. Aim to mainly choose products where salt is coded green. Have amber products occasionally and limit the number of red products.

How much salt?

Use the key below to determine whether your food contains a high, medium or low amount of salt.



Source: Consensus Action on Salt and Health

Keep hydrated

Drink plenty of water and other healthy fluids to stay well hydrated. You will be advised by the transplant team how much fluid to aim for each day.

What fluids are best?

- Water (tap or bottled)
- Fruit squashes (try lower sugar versions)
- Sugar free drinks
- Tea and coffee

When the weather is warm (or when we are active), our bodies may need an additional 500 millilitres per day to stay well hydrated.

Alcohol

- Both men and women are advised to avoid exceeding 14 units of alcohol per week, to keep associated health risks to a low level.
- If you do drink as much as 14 units per week, it is best to spread this evenly over three days or more.
- If you wish to cut down the amount you're drinking, a good way to help achieve this is to have several alcohol free days each week.

How many units do drinks contain?

- 125ml of 12% wine = 1.5 units
- 175ml of 12% wine = 2 units
- 250ml of 12% wine = 3 units
- Pint of lower strength lager/beer/cider (3.6%) = 2 units
- Pint of stronger lager/beer/cider (5.2%) = 3 units
- Can of lager/beer/cider (440ml 5%) = 2 units
- Single measure/25ml of spirit (40%) = 1 unit

Please note: drinks with higher % alcohol will contain more units of alcohol

Alcohol has almost as many calories in it as fat. Decreasing alcohol can assist in reducing overall calorie intake. For example:

Drink	Calories	Equivalent food
25ml whiskey	55kcal	One Bourbon biscuit
Gin and tonic	126kcal	Two finger KitKat
175ml glass white wine	130kcal	Two Digestive biscuits
Pint of lager	180 kcal	Slice of pizza
Pint of cider	240kcal	Jam doughnut

Meal ideas and healthy snacks

Breakfast ideas:

- Wholegrain breakfast cereal with skimmed / 1% or semi-skimmed milk
- Porridge (made with water, skimmed / 1% / semi skimmed milk) with fruit
- Wholemeal toast / muffin with low fat spread
- Scrambled/poached/boiled egg on wholemeal toast
- Add a piece of fruit

Lunch ideas:

- Jacket potato with reduced salt and sugar beans / reduced fat cheese / tuna and salad
- Vegetable based soup (not tinned/powdered due to salt content) with wholemeal roll
- Mackerel / tuna / chicken salad with pasta / potatoes / rice or bread and a low fat dressing
- Sandwich (wholemeal bread, pitta bread, wraps or rolls) with meat / fish and salad

Evening meal ideas

Vegetarian meals such as:

- Pasta with roasted vegetables and beans / pulses in tomato sauce
- Vegetable omelette with boiled potatoes or two slices of bread
- Vegetable and chickpea curry with rice

Meat and fish meals such as:

- Chicken / turkey and vegetable stir fry with noodles
- Fish with boiled potatoes, mixed bean salad or vegetables
- Lean grilled meat with potatoes / rice / noodles / pasta with vegetables
- Use herbs and spices to add flavour

Lean mince based meals served with extra vegetables or salad such as:

- Spaghetti Bolognaise
- Cottage Pie
- Lasagne
- Chilli Con Carne (made with beef or lentils)
- Savoury mince and potatoes

Remember – avoid using excess fat when cooking. Drain excess fat away. Try to include a variety of vegetables or salad with each meal.

Snack ideas:

- Fruit
- Two to three plain biscuits (Rich Tea, Morning Coffee, Digestive, Ginger)
- Diet or light yoghurt
- Wholemeal toast
- Small bowl of wholegrain cereal
- Raw vegetable sticks with reduced fat dip
- Three to four crackers (e.g. oat cakes/ wheat/seeded crackers) with low fat cream cheese
- Handful of unsalted nuts/seeds/dried fruit
- Plain unsalted popcorn

What about exercise?

Exercise has been shown to bring specific benefits to people following a kidney transplant, as well as general improvements to health.

These benefits include:

- improved cardiovascular fitness
- improved muscle strength
- improved endurance
- better quality of life

There is known to be a small increased risk of cardiovascular disease following a transplant compared to the general population. As a consequence, regular exercise is an important aspect of healthy living afterwards.

Exercise may seem daunting, but there are many ways of increasing activity that can be enjoyable. Try starting by taking a brisk walk, doing some gardening, or vigorous housework. You should aim to build up the amount of activity gradually, ideally aiming for 20-30 minutes on at least three days a week.

Remember that exercising can make you feel out of breath, increase your heart rate and make you feel sweaty – this is normal!

If you feel you would like some help and advice to start or resume an exercise plan post-transplant please contact the kidney specialist physiotherapist on 01904 726151 or 07866 206206.

Exercise groups for people with kidney disease take place regularly at York Hospital gym – if you would like more information on these please contact the kidney specialist physiotherapist as above. Alternatively, please speak to your GP or kidney team members if you are interested in starting an exercise programme.

In addition, there is a web-based exercise resource available free of charge called Kidney Beam, which helps people living with kidney disease feel good through movement, education and wellbeing support. You can access exercise sessions and advice from experts using your electronic devices at home or away. To find out more please follow this link:
<https://beamfeelgood.com/kidney-disease>.

You can get information and practical advice on exercise from the Chief Medical Officer's website: <https://assets.publishing.service.gov.uk/uk-chief-medical-officers-physical-activity-guidelines.pdf>

Further information

If you require further information about your diet please speak with your kidney doctor who can refer you to a dietitian.

Useful websites

NHS Eatwell website

<http://www.nhs.uk/livewell/healthy-eating/Pages/Healthyeating.aspx>

Food Standards Agency www.food.gov.uk/

British Dietetic Association www.bda.uk.com

National Kidney Foundation www.nkrf.org.uk/

Consensus Action on Salt and Health www.actiononsalt.org.uk/

British Nutrition Foundation www.nutrition.org.uk

Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact: The Nutrition and Dietetics Department, York Hospital, Wigginton Road, York, YO31 8HE, telephone 01904 725269 or email: yhs-tr.yorkdietitians@nhs.net.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email yhs-tr.patientexperienceteam@nhs.net

An answer phone is available out of hours.

Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Leaflets in alternative languages or formats

If you would like this information in a different format, including braille or easy read, or translated into a different language, please speak to a member of staff in the ward or department providing your care.

Patient Information Leaflets can be accessed via the Trust's Patient Information Leaflet website: www.yorkhospitals.nhs.uk/your-visit/patient-information-leaflets/

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