

# Your kidneys, your health

A guide to living with early stage  
chronic kidney disease

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Have you been diagnosed with early stage chronic kidney disease (CKD)?

Do you want to know more about your kidneys and CKD?

Do you want to know more about how to adopt a healthy lifestyle?

Are you wondering what information and support is available?

If the answer to any of these questions is yes then this booklet is for you.

## This booklet tells you more about:

- how your kidneys work and what they normally do
- chronic kidney disease (CKD) and its causes
- the tests and treatments for CKD
- what you can do to look after your kidneys
- how to keep yourself as healthy as possible
- how to make changes in your lifestyle
- where to go for further information and support.

You may decide to read this booklet all at once or prefer to read just a chapter or two at a time. You might find it helpful to share the information in this booklet with your family and friends.

There is also a website to go with this booklet telling you more about CKD and related treatments:

[www.mykidney.org.uk](http://www.mykidney.org.uk)

You might find it helpful to bring the booklet with you when you come to the kidney clinic or visit your GP practice.

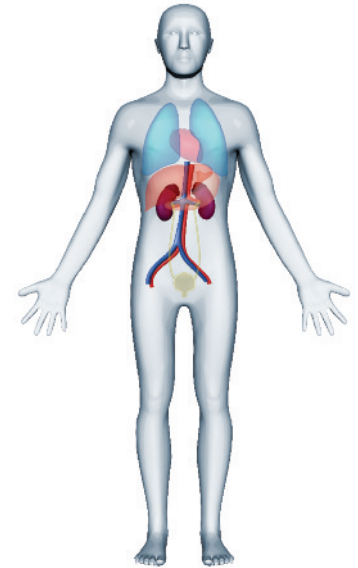
If you have any questions, big or small, the healthcare team is always happy to answer them. There is a glossary at the end of this leaflet with explanations of some of the technical terms and abbreviations that may be used when talking about your CKD and treatment.

## The kidneys

### Where are my kidneys?

Most people have two kidneys. They are located at the back of your body below your ribs. This diagram shows where your kidneys are in relation to your other major organs.

The kidneys make urine which passes through your ureters to your bladder.

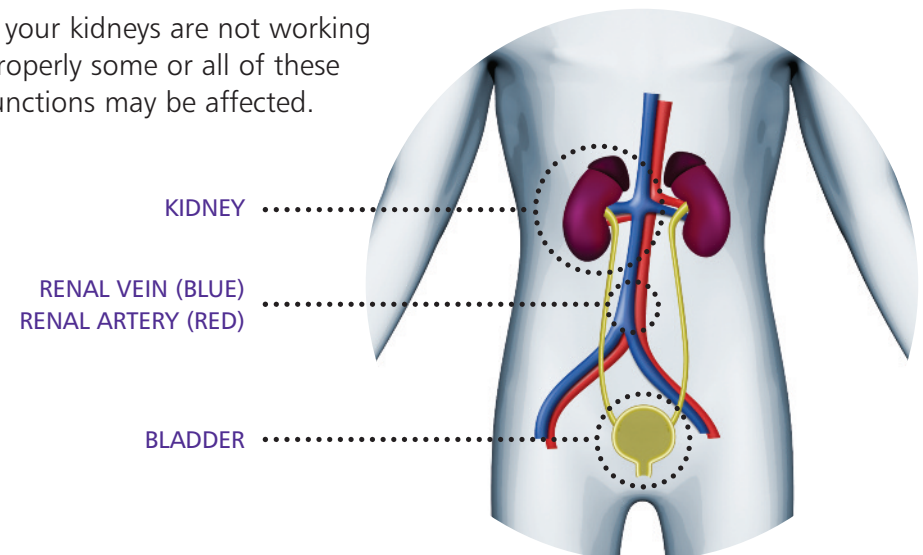


### What do they do?

The functions of the kidneys include:

- filtering your blood to make urine, enabling your body to get rid of waste and water it doesn't need, also regulating the salts and minerals in your blood
- controlling your blood pressure
- keeping your bones healthy
- making new red blood cells.

If your kidneys are not working properly some or all of these functions may be affected.



## What is chronic kidney disease (CKD)?

Chronic kidney disease or CKD means that your kidneys are not working properly. Chronic means it is long term and likely to last for the rest of your life. It may remain mild – most people with CKD feel quite well and only a few will develop kidney failure.

If you have mild CKD adopting a healthy lifestyle is important to reduce the risk of your kidney disease getting worse. Treatment to prevent raised blood pressure may also be recommended by your doctor and it is important to take any medications you are prescribed.

## How did you find out that I have CKD?

The problem with your kidneys may have been discovered through one of the following ways:

- a routine urine test
- a very high blood pressure reading
- a routine blood test.

If your doctor finds something is wrong with your kidneys they may do more tests. This may include more blood tests, x-rays, ultrasound scans and possibly a kidney biopsy (where a tiny piece of tissue is removed from your kidney and examined under a microscope). These tests are needed to see the exact damage to your kidneys and to determine if any specific treatment is necessary.

## What are the symptoms of CKD?

In the early stages of CKD you often have no symptoms. If your CKD worsens you may have some or all of these symptoms at different times:

- tiredness
- lack of appetite
- sickness
- cramp in your legs
- itching
- swollen ankles
- shortness of breath.

Many of these symptoms will improve with treatment, which may include taking medications.

## Can CKD happen with no symptoms?

Yes, often people with early stage CKD do not feel unwell and may not have any significant symptoms. You might only find out from a routine blood test that your kidneys are not working properly and that you need to start some treatment.

## What causes CKD?

There are a lot of conditions that can damage your kidneys, but often CKD is a consequence of the normal ageing process as kidneys scar gradually with age and are unable to repair themselves. Here are some of the other common causes:

- **Diabetes mellitus** – a condition in which there is too much sugar in the blood. It can be treated by insulin, tablets or diet. It is the single most common cause of CKD and usually occurs in people who have had diabetes for longer than ten years.
- **High blood pressure** – also called hypertension.
- **Glomerulonephritis** – a general term meaning the kidneys become inflamed and damaged. The reason is often not known.
- **Pyelonephritis** – an inflammation of the kidneys' drainage system, usually caused by an infection.
- **Renovascular disease** – a narrowing of the arteries that supply blood to the kidneys. It is caused by smoking and too much cholesterol in the body.
- **Obstructive nephropathy** – a blockage in the flow of urine which causes damage to the kidneys, most common in men over 60. It is often caused by the prostate gland becoming enlarged. In rare cases it happens to women and is connected to gynaecological problems.
- **Polycystic kidney disease (PKD)** – a condition which runs in families. If you have PKD you will have lumps, known as cysts, on your kidneys.

## How do you know the extent of my kidney damage?

When we do your blood tests at the clinic or at your GP practice, we use the results to calculate your estimated Glomerular Filtration Rate (eGFR). This is often referred to as a percentage of kidney function. This gives us a rough idea of the amount of remaining healthy kidney function provided by your kidneys.

Young people with completely healthy kidney function will have an eGFR of 90% – 100% but people can remain well with much less than this.

### Stages 1 and 2 (mild or early stage CKD)

Your kidney function is 60% or more but your urine test, kidney x-ray or kidney biopsy show some signs of kidney damage.

### Stage 3 (moderate CKD)

Your percentage of remaining kidney function is 30 to 59%.

### Stage 4 (advanced CKD)

Your percentage of remaining kidney function is 15 to 30%. This is the point at which you might start to feel symptoms and this is also the time to start learning about treatment choices for kidney failure.

### Stage 5 (kidney failure)

Your percentage of remaining kidney function is less than 15% and you need to start treatment in the form of dialysis, transplantation or conservative management (managing symptoms without having dialysis).

Most people reading this booklet will be at stage 1, 2, 3 or early stage 4.

You might start to experience some significant symptoms if your percentage of remaining kidney function goes down to 20–30% of normal. If your kidney function reaches 10–12% of normal, you will need to have specific treatment in the form of dialysis, transplantation or conservative management.

## What will happen to me in the future?

Most people with mild to moderate CKD (stages 1–3) can prevent their kidneys from getting worse by adopting a healthy lifestyle and taking medication. Your family doctor and community health services can often support you to do this.

If your CKD progresses to stage 4–5 you will need to start thinking about the treatment choices available for kidney failure. These include undergoing dialysis, having a kidney transplant or conservative management.

Your outlook will be affected by your age and whether you have other medical conditions, such as heart disease or diabetes. Statistics can give you a general indication about survival for people with CKD, but these only give an average and do not reflect the outcome for each individual.

## Is CKD passed on in families?

Most causes of CKD are not passed on in families. If tests show that you may have a hereditary cause for your CKD you will be offered further information and support from a health care professional specialising in genetics (hereditary conditions).

# Treatment for CKD

## Why have I been referred to the kidney clinic?

Usually people are referred to the kidney clinic by their GP. Sometimes the referral comes from another hospital doctor such as a diabetic specialist. You will have been referred because blood test results have shown a problem with your kidneys that requires further investigation.

## Who will I see at the kidney clinic?

You will see a specialist kidney doctor (often referred to as a consultant nephrologist) who will carry out the initial consultation. You may also see a nurse specialist for further information and education.

## What will happen at the kidney clinic?

We will ask you questions about any previous or existing medical problems you have, as well as asking about any symptoms you may have noticed such as tiredness or feeling sick.

At the end of the consultation the doctor will let you know if you are likely to need any further investigations such as blood tests and/or an ultrasound scan of your kidneys (a procedure that creates an image of an organ in the body) to try to find out the cause and extent of your kidney problem. Some people may also need a kidney biopsy (where a tiny piece of tissue is removed from the kidney and examined under a microscope). This is usually done as a day case procedure in one of our kidney wards.

The doctor will then be able to advise you on what treatment will be best for you. At this point the doctor may recommend that you see the nurse specialist for further information about managing your CKD.



When you come to the clinic we will measure your blood pressure



Test your urine



Check your weight



Please bring your medications (or a list of them) for the doctor to see.

## How often will I have to attend the kidney clinic?

Most people do not need to carry on coming to the kidney clinic once the cause and extent of their kidney problem is identified. However this varies from one person to another. We may recommend that you return to the clinic or you may be able to go back to your GP for ongoing care and follow up.

We may invite you to attend an information and education session for people with early stage CKD. The aim of these sessions is to help you understand more about your condition and how to manage it.

## What can I do to help look after my kidneys?

The health care team in the kidney clinic will explain how to protect your kidneys from further damage.

This will include some or all of **'the big six'**:

1. Keeping your blood pressure down ..... 13
2. Healthy eating ..... 15
3. Taking regular exercise ..... 24
4. Giving up smoking ..... 26
5. Reducing your alcohol intake ..... 28
6. If you are diabetic, getting your diabetes under control ... 31

We may also prescribe you some medications to help protect your kidneys and give you advice on avoiding medications that may further damage your kidneys.

For a small percentage of patients who have more unusual causes for their kidney problem, there may be some additional more specific treatments to help keep your kidneys healthy, such as medications to suppress your immune system.

You can help us to look after your kidneys by making some small changes to your lifestyle. The **'big six'** suggest what you should focus on and how to get started.

## 1. Keeping your blood pressure down

### WHY is blood pressure important?

Your heart pumps blood around your body through blood vessels called arteries. Blood pressure is the pressure that your blood exerts on the artery walls. If this pressure is too high it can damage the arteries, which in time leads to kidney damage. This can lead to kidney failure and the need for dialysis or a transplant. High blood pressure can also increase your chance of having a heart attack or stroke. Keeping your blood pressure down is the single most important factor in looking after your kidneys.



### HOW can I keep my blood pressure down?

- By healthy eating
- By reducing the salt in your diet
- By taking regular exercise
- By not becoming overweight
- By giving up smoking
- By reducing your alcohol intake.

Most people with CKD will also need tablets to keep their blood pressure down. There are many types of medication available and your doctor will discuss with you which type may suit you best. It is likely that you will need to take these tablets for the rest of your life and you should definitely not stop taking them without talking to your kidney doctor or GP.

You may find it helpful to measure your own blood pressure. A number of blood pressure monitors are available and your local pharmacy can advise on these. You can also contact the organisations listed over the page for advice on monitors.

## Information and support

This booklet will tell you more about how to make changes in your lifestyle.

The following organisations have some useful information specifically about blood pressure:

### The British Heart Foundation

Tel: 0300 330 3311

[www.bhf.org.uk](http://www.bhf.org.uk)

### The Blood Pressure Association

Tel: 0845 241 0989

[www.bpassoc.org.uk](http://www.bpassoc.org.uk)

## Target/goals

People with CKD should aim for a blood pressure of 130/70 or below when measured at the clinic or by your GP.

Some people may be given a higher target depending on the nature of their CKD. The doctor will discuss this with you in clinic.

If you start to feel dizzy or faint and your blood pressure falls to 100/60 or below, your blood pressure medication may need to be reviewed, in this case please contact your GP.

## 2. Healthy eating

### WHY is healthy eating important?

Having a healthy diet is important to help you control your weight or to prevent you becoming malnourished. A healthy diet can also help protect your kidneys and reduce your risk of heart disease and stroke. If the doctor in the kidney clinic feels that you need specific, individual advice they will arrange for you to see a specialist kidney dietician. However, most people can adopt a healthy eating plan using the following guidance.

### WHAT is a healthy diet?

A healthy diet means eating regular meals which contain a variety of foods which are low in fat, sugar and salt, and high in fibre.

### Some tips:

- Enjoy what you eat, eat slowly and eat a varied diet.
- Eat regular meals to help keep hunger at bay.
- Avoid snacks in between meals that are high in fat or sugar such as crisps, cakes and biscuits.
- Fresh fruit and raw vegetables are healthy alternatives to snack on between meals.

### HOW do I eat a healthy diet?

The following guidelines outline what is involved in healthy eating:



### Include carbohydrate

Starchy carbohydrates are needed for energy so that you can carry out your daily activities. Starchy foods include cereals, breads, potatoes, yam, plantain, rice, noodles and pasta. Try to include some of these in every meal.



### Include protein

Protein is needed for growth and repair of muscle tissue. The richest sources of protein are animal protein such as meat, fish, cheese, eggs and milk, and vegetable protein such as nuts, pulses (beans, lentils), tofu, Quorn and soya chunks/mince. Try to include some protein in every meal.



### Include calcium

Calcium is important to keep your bones healthy. It is found in dairy foods. Aim to have two portions of dairy foods every day, for example one cup of milk, 200g yoghurt or 30g (1oz) of cheese. Try to use low fat dairy products such as semi-skimmed milk, reduced fat cheese and low fat yoghurt.



### Eat MORE fruit and vegetables

Fruit and vegetables can help lower your blood pressure and protect against heart disease. They are also a good source of vitamins. Aim to eat at least five portions of fruit and vegetables per day.



#### A portion is:

- One medium sized fruit e.g. apple, pear.
- Two small sized fruits e.g. two plums.
- One handful of smaller fruits, such as raspberries.
- One cup of chopped fruit or vegetables.



### Eat MORE fibre

Fibre helps to keep your bowels regular, increase the feeling of fullness and prevent snacking. Good sources of fibre are wholemeal foods (such as brown rice and pasta), wholemeal bread, wholegrain breakfast cereals, fruits, vegetables, oats, pulses and beans.

### Eat LESS salt

Too much salt can cause high blood pressure and increase your risk of heart disease. Seventy five per cent of the salt we eat is found in processed foods.

Note: Salt is often listed as sodium on food labels.



#### Some tips:

- Eat fewer processed foods such as takeaways and ready-made meals and soups.
- Eat more fresh foods.
- Avoid adding salt to your food in cooking or at the table.
- Use herbs, spices and pepper instead of salt.
- Eat fewer crisps, salted nuts, bacon, ham, sausages, soy sauce, anchovies and tinned/packet soups, as these are all high in salt.



## Eat LESS fat

Eating less fat can help prevent you from becoming overweight, reduce your risk of heart disease and lower your blood pressure. Eating less fat can also help reduce the level of cholesterol in your blood.

Cholesterol is a type of fat that can build up on the artery walls and narrow them. In time this causes your blood pressure to go up.

Sometimes people with CKD need medication to lower their cholesterol. There are several tablets available and your doctor will discuss with you which type may suit you best. It is likely that you will need to take these tablets for the rest of your life and you should not stop taking them without talking to your kidney doctor or GP.

### Some tips:

- Avoid butter, lard and ghee.
- Trim all visible fat from meat before cooking.
- Remove skin from chicken.
- Choose low-fat dairy products such as semi-skimmed milk, low-fat yoghurts and reduced fat cheeses.
- Cut down on the amount of crisps, chocolates, pastries and biscuits that you eat.
- Use small amounts of unsaturated (good) fats such as olive, canola, rapeseed, and sunflower oils and spreads.
- Try reduced fat spreads and spread them thinly.
- Avoid frying food. Instead, prepare food by steaming, microwaving, grilling, boiling or baking.
- Mayonnaise and salad cream are very high in fat. Choose low-fat varieties and use sparingly.

## Eat LESS sugar

Sugary foods are often high in calories and may contribute to weight gain, so try to eat fewer sugary foods.

### Some tips:

- Choose products labelled 'low in sugar'.
- Avoid adding extra sugar to drinks and food.
- Consider using artificial sweetener in place of sugar.
- Cut down on cakes, biscuits, chocolates and sweets.



## Information and support

Ask for copies of our patient information sheets:

- Eating less salt – information for people with kidney disease
- Making sense of labels

The following organisations have some useful tips and hints about healthy eating:

### The British Heart Foundation

Tel: 0300 330 3311  
[www.bhf.org.uk](http://www.bhf.org.uk)

### The Blood Pressure Association

Tel: 0845 241 0989  
[www.bpassoc.org.uk](http://www.bpassoc.org.uk)

### The British Nutrition Foundation

Tel: 020 7404 6504  
[www.nutrition.org.uk](http://www.nutrition.org.uk)

## Target/goals

### A balanced diet:

Aim for a well balanced diet containing all the nutrients discussed in this leaflet.

### Salt:

Aim to eat less than 6 grams (1 teaspoon) per day. Most people regularly eat more than this. Rather than try to measure your daily salt intake, concentrate on reducing the high salt foods.

### Fat:

For people with CKD, cholesterol should be less than 5.0mmol/L. Cholesterol levels will be checked at the kidney clinic. Your GP or local pharmacy can also check your cholesterol for you by doing a simple blood test.

### Fruit and vegetables:

Aim to eat five portions a day.

### Your weight:

Aim for a healthy weight. Staff in the kidney clinic or in your GP surgery can advise you on what your weight should be. You can also calculate it yourself using body mass index (BMI) calculators. There are a number of BMI calculators on the internet or you can use the chart opposite.

## Body Mass Indicator (BMI) chart

	Height									
	4'10 147cm	5'0 152cm	5'2 157cm	5'4 163cm	5'6 168cm	5'8 173cm	5'10 178cm	6'0 183cm	6'2 188cm	6'4 193cm
Weight										
7st 0 45kg	20.6	19.2	18	16.9	15.9	15	14.1	13.3	12.6	
7st 7 48kg	22	20.6	19.3	18.1	17	16	15.1	14.3	13.5	12.8
8st 0 51kg	23.5	22	20.6	19.3	18.1	17.1	16.1	15.2	14.4	13.7
8st 7 54kg	25	23.3	21.8	20.5	19.3	18.2	17.2	16.2	15.3	14.5
9st 0 57kg	26.4	24.7	23.1	21.7	20.4	19.2	18.1	17.2	16.2	15.4
9st 7 60kg	27.9	26.1	24.4	22.9	21.5	20.3	19.2	18.1	17.1	16.2
10st 0 64kg	29.4	27.4	25.7	24.1	22.7	21.4	20.2	19.1	18	17.1
10st 7 67kg	30.8	28.8	27	25.3	23.8	22.4	21.2	20	18.9	18
11st 0 70kg	32.3	30.2	28.3	26.5	24.9	23.5	22.2	21	19.8	18.8
11st 7 73kg	33.8	31.6	29.6	27.7	26.1	24.6	23.2	21.9	20.7	19.7
12st 0 76kg	35.2	32.9	30.8	28.9	27.2	25.6	24.2	22.9	21.6	20.5
12st 7 79kg	36.7	34.3	32.1	30.1	28.3	26.7	25.2	23.8	22.5	21.4
13st 0 83kg	38.2	35.7	33.4	31.4	29.5	27.8	26.2	24.8	23.5	22.2
13st 7 86kg	39.6	37	34.7	32.6	30.6	28.8	27.2	25.7	24.4	23.1
14st 0 89kg	41.1	38.4	36	33.8	31.7	29.9	28.2	26.7	25.3	23.9
14st 7 92kg	42.6	39.8	37.3	35	32.9	31	29.2	27.6	26.2	24.8
15st 0 95kg	44	41.2	38.5	36.2	34	32	30.2	28.6	27.1	25.7
15st 7 98kg	45.5	42.5	39.8	37.4	35.2	33.1	31.2	29.5	28	26.5
16st 0 102kg	47	43.9	41.1	38.6	36.3	34.2	32.3	30.5	28.9	27.4
16st 7 105kg	48.5	45.3	42.4	39.8	37.4	35.2	33.3	31.4	29.8	28.2
17st 0 108kg	49.9	46.6	43.7	41	38.6	36.3	34.3	32.4	30.7	29.1
17st 7 111kg	51.4	48	45	42.2	39.7	37.4	35.3	33.3	31.6	29.9
18st 0 114kg	52.9	49.4	46.3	43.4	40.8	38.5	36.3	34.3	32.5	30.8
18st 7 117kg	54.3	50.8	47.5	44.6	42	39.5	37.3	35.3	33.4	31.6
19st 0 120kg	55.8	52.1	48.8	45.8	43.1	40.6	38.3	36.2	34.3	32.5
19st 7 124kg	57.3	53.5	50.1	47	44.2	41.7	39.3	37.2	35.2	33.3
20st 0 127kg	58.7	54.9	51.4	48.2	45.4	42.7	40.3	38.1	36.1	34

Underweight Normal weight Overweight Obese

## Making changes

- If you need to make more than one change, decide which is the most important and focus on that first.
- Think about how many changes will fit in with your daily routine.
- Expect to have occasional lapses but don't give up.

The Big Six	Target	Personal plan
<b>1</b> Keep your blood pressure down	<ul style="list-style-type: none"> <li>● 130/70 or below</li> </ul>	
<b>2</b> Healthy eating	<ul style="list-style-type: none"> <li>● A balanced diet, low in salt, sugar and fat</li> <li>● 5 portions of fruit/vegetables per day</li> <li>● Healthy weight</li> </ul>	
<b>3</b> Take regular exercise	<ul style="list-style-type: none"> <li>● 30 minutes of moderate activity, five times a week</li> <li>● Healthy weight</li> </ul>	
<b>4</b> Give up smoking	<ul style="list-style-type: none"> <li>● Stop smoking completely, for good</li> </ul>	
<b>5</b> Reduce your alcohol intake	<ul style="list-style-type: none"> <li>● 21-28 units per week for men</li> <li>● 14-21 units per week for women</li> </ul>	
<b>6</b> If you are diabetic, get your diabetes under control	<ul style="list-style-type: none"> <li>● Blood sugar of 4-7mmol/l</li> </ul>	

### 3. Taking regular exercise

#### WHY is exercise important?

Exercise is important to lower your blood pressure, manage your weight and keep your heart healthy which in turn helps protect your kidneys. Exercise can reduce the risk of early death by 20% to 30%.

Twenty first century lifestyles mean that people are less active than previous generations. Try to think of ways you can build more activity into your daily routine and lifestyle. You don't have to join a gym or take up a sport to get fitter.

If you know that your blood pressure is high, talk to your doctor as it may be advisable for you to wait until your blood pressure has been lowered by medications before starting an exercise programme.



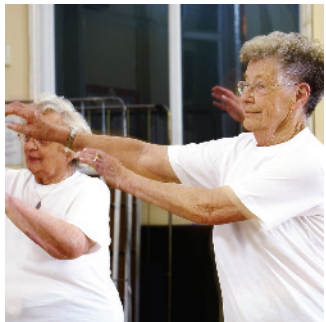
#### HOW do I start taking more exercise?

The best kinds of exercise to help your heart and blood pressure are those that encourage regular movement of your legs, shoulders and arms, and result in you getting a little out of breath. For example:

- Cycling
- Brisk walking
- Swimming or aqua aerobics
- Dancing.

You could also try:

- Walking to the local shops instead of driving to the supermarket
- Taking a walk in your lunch break
- Getting off the bus one stop early
- Taking the stairs instead of the lift
- Doing some gardening
- Yoga, pilates or tai chi.



If you find it difficult to get out of the house, try:

- Walking briskly around the house for 10 minutes
- Marching on the spot for 10 minutes
- Climbing the stairs/climbing up and down one stair for 10 minutes
- Chair based exercises (classes are often available locally – ask your GP or local leisure centre).

#### Some tips about exercise:

- Warm up before exercising
- Cool down after exercising
- Wear loose comfortable clothing and shoes
- Eat a light meal at least an hour before exercising
- Drink plenty of water before, during and after exercising
- Stop if you feel dizzy, nauseous, wheezy or get chest pains
- Stop if your joints or muscles hurt or if you feel very tired.

#### Information and support

##### The Blood Pressure Association

Tel: 0845 241 0989, [www.bpassoc.org.uk](http://www.bpassoc.org.uk)

##### NHS Choices

[www.nhs.uk/LiveWell](http://www.nhs.uk/LiveWell) and select Fitness from the menu.

Many GP surgeries and local libraries have details of community exercise groups (some specifically tailored for those with medical conditions), swimming pools, gyms, ramblers associations and local walking groups.

#### Target/goals

Aim for 30 minutes of moderate physical activity five days a week. This could be three 10 minute activities spaced out during the day.

It may take a while to work up to this so start off by aiming to exercise three times a week for 20 minutes.

## 4. Giving up smoking

### WHY is giving up smoking important?

- Smoking harms your heart and raises your blood pressure, which damages your kidneys.
- Smoking increases your risk of developing several types of cancer, lung disease and heart disease.
- Stopping smoking at any age will improve your health and may increase your life expectancy.



Within 24 hours of stopping smoking, carbon monoxide (one of the chemicals in tobacco smoke) is out of your lungs. This is one of the chemicals which effects blood pressure and circulation.

- After three months your circulation and breathing should have improved noticeably.
- After five years, your risk of having a heart attack falls to about half that of a smoker.
- After ten years, your risk of lung cancer falls to about half that of a smoker.
- It's never too late to stop smoking – you will benefit at any age.



### HOW do I give up smoking?

- Get expert support from the NHS stop smoking services and find out about the medical treatments and support that is available to you. You are four times more likely to quit successfully with their help.
- Ask the staff at the kidney clinic, or your GP, to refer you to your local free NHS stop smoking service.
- Decide to stop on a certain date and a few weeks ahead of the date tell your friends and family so that they can support you.
- Throw away all cigarettes, ashtrays, lighters.

### Information and support

#### The British Heart Foundation

Tel: 0300 330 3311

[www.bhf.org.uk](http://www.bhf.org.uk)

#### NHS Stop Smoking Helpline

Tel: 0800 022 4 332

#### NHS Choices Smokefree Website

<http://smokefree.nhs.uk>

**Your GP** – for advice about local free NHS stop smoking services

### Target/goals

To stop smoking completely.

If you start again, just stop immediately. It takes most people four or five attempts before they go 'smoke free' for good so just keep trying, you will get there in the end.

## 5. Reducing your alcohol intake

### WHY is reducing my alcohol intake important?

Reducing your alcohol intake is important to help lower your blood pressure and protect your kidneys. Regularly drinking above recommended levels can cause serious health problems such as:

- high blood pressure
- heart attacks
- increased risk of various cancers
- liver problems
- reduced fertility.

The effects of alcohol on your health will depend on how much you drink. The more you drink, the greater the health risks. Most people who have alcohol-related health problems aren't alcoholics. They're simply people who have regularly drunk more than the recommended levels for some years.

### The NHS recommends:

- Men should not regularly drink more than 3–4 units a day.
- Women should not regularly drink more than 2–3 units a day.

'Regularly' means drinking these amounts every day or most days of the week

### What are 'units'?

Units are a standard way to indicate the alcohol content of a drink, but you can't just count each drink as a unit of alcohol. The number of units depends on the strength and size of each drink.



**Pint of normal strength beer**

**= 2 units of alcohol**



**Pint of strong beer**

**= 3 units of alcohol**



**Medium (175ml) glass of wine**

**= 2 units of alcohol**

**Large (250ml) glass of wine**

**= 3 units of alcohol**



**Single (25ml) measure of spirit**

**= 1 unit of alcohol**

## HOW do I reduce my alcohol intake?

- Decide you are going to cut down and tell your friends and family so that they can support you.
- Identify certain days of the week when you will not drink alcohol at all.
- Have smaller sized drinks.
- Have lower strength beers or low-alcohol drinks.
- Make your drinks last longer by adding mixers.
- Don't eat salty snacks with your drinks as they will make you thirsty and want to drink more.
- Drink plenty of water or soft drinks so that you are not using alcohol to quench your thirst.
- Keep a check on the units you drink using the guidance above or use an online calculator ([www.drinkaware.co.uk](http://www.drinkaware.co.uk)).

## Information and support

### NHS Choices

[www.nhs.uk/LiveWell](http://www.nhs.uk/LiveWell) and select Alcohol from the menu

### Drinkline – the national alcohol helpline

Tel: 0800 917 8282

**Your GP** – for advice about local alcohol support services

## Target/goals

**Men** should not regularly drink more than 3–4 units of alcohol a day.

**Women** should not regularly drink more than 2–3 units of alcohol a day.

## 6. If you are diabetic, getting your diabetes under control

### WHY is it important to get my diabetes under control?

Long standing diabetes causes damage to the small blood vessels that in turn damage the kidneys. The kidneys then start to 'leak' protein, which can be found on routine urine testing.



About one third of people with diabetes will get some form of kidney disease.

Keeping your blood glucose levels as near normal as possible (between 4 and 6 mmol/l before meals, and less than 10 mmol/l two hours after food) with tablets and/or insulin, together with good blood pressure control and cholesterol control, can greatly reduce the risk of your kidney disease getting worse. It will also reduce

the risk of developing other vascular diabetic complications such as stroke, heart attack, foot ulcers, and eye problems.

### HOW can I improve my diabetic control?

You will need to work in partnership with your diabetes healthcare team which may include several healthcare professionals in different settings depending on your needs. However, you should know the name of your key contact person who you are likely to see most often. This person will be able to co-ordinate your care and agree with you some realistic goals and a plan to achieve them.

Many people with diabetes and CKD will need tablets to reduce the protein being lost in the urine through the kidneys. There are many types of medications available and your doctor will discuss with you which type may suit you best. It is likely that you will need to take these tablets for the rest of your life and you should not stop taking them without talking to your kidney and diabetes doctor or GP.

## Information and support

### Diabetes UK

[www.diabetes.org.uk](http://www.diabetes.org.uk)

Tel: 0845 129 2960

Your GP and local diabetes healthcare team

### Target/goals

Blood glucose levels should be as near as possible to between 4 and 6 mmol/l before meals, and less than 10 mmol/l two hours after food.

HbA1c (which indicates your blood glucose levels for the previous two to three months) should be below 50 mmol/mol.

Cholesterol levels should be 4 mmol/L or below.

Blood pressure should be 130/70 or below.



## Living life to the full



### Can I carry on working?

Yes, you should be able to carry on working. If your CKD progresses to stage 4–5 you may find you tire more easily and this may be difficult for people with jobs that are very physical.

### Can I claim benefits?

You might be able to claim one or more benefits depending on how your CKD affects your general health. Before stopping work or reducing your hours it is important for you to get financial advice. You can get advice from your social worker or your local Citizens Advice Bureau (CAB). You will find the number for the CAB in your local telephone book.

### Will my illness affect my insurance?

Most insurance companies do not cover pre-existing conditions. Please read the 'small print' carefully. If you have problems getting insurance contact an insurance broker for advice. This also applies to travel insurance.

### Can I travel?

You can still travel. If you have CKD stage 4–5 please talk to your GP or nurse to ensure you are fit enough to travel. Always ensure you take an adequate supply of any prescribed medications.

If you require vaccines or malaria prevention tablets for your travels please check with your GP or doctor at the kidney clinic to ensure it is safe for you to receive them.

### I am less interested in sex now, is this common?

If your CKD progresses to stage 4–5 you might find that you are more tired, feeling down and have less interest in sex. The medication you are taking might also affect your sex drive. Men may experience difficulties getting and keeping an erection and in women orgasms may be less frequent. You may find it helpful to talk to someone – please do not be embarrassed to ask for advice. There are many effective treatments available.



### Will I still be able to have children?

Women with CKD stage 1–3 are usually able to have children but will need close monitoring during pregnancy to prevent high blood pressure. If you are hoping to start a family, talk to your doctor first so that you can plan for a healthy pregnancy. Men with CKD stages 1–3 are usually able to father

children although some may have a reduced sperm count.

CKD stage 4–5 may affect fertility in both men and women although it is still possible for women to become pregnant. Talk to your doctor first to ensure that both your health and that of your baby are monitored.

### Will my children have chronic kidney disease?

There are some kidney conditions which can be inherited. Ask your doctor about the cause of your kidney disease. If you are planning to have children talk to your healthcare team about your concerns.

## More questions people often ask



### Can I use complementary therapies?

Talk to your GP or doctor/nurse at the kidney clinic before you start taking any complimentary medicines or herbal remedies. This is because they can contain unlabelled substances such as potassium or sodium which may be harmful to you; they may also interact with your prescribed medicines.



### Can I use over the counter medications?

Over the counter (OTC) medications are ones you can buy from a pharmacy, chemist or supermarket without having a prescription from your doctor. It is particularly important for people with CKD to avoid a type of painkiller called a non-steroidal anti-inflammatory drug (also known as NSAID), such as Ibuprofen (Nurofen®), as these can cause further kidney damage. Paracetamol is a safer alternative painkiller.

Always speak to the pharmacist and explain that you have CKD before buying any OTC medications. Please also let them know what medications you are taking so that they can check they do not interact with any OTC medicines that you wish to take.



### I have been told I am anaemic, is this common?

Anaemia is caused by a shortage of red blood cells. Healthy kidneys produce a hormone called erythropoietin which stimulates the bone marrow to produce red blood cells. In CKD stages 4–5 the kidneys may not be able to produce enough of this hormone and people can become anaemic. This causes

tiredness and loss of energy but can be successfully treated with medications.

### Do I have to pay for my prescriptions?

Yes, unless you are eligible for free prescriptions, for example you:

- receive certain benefits
- are on a low income
- are aged 60 or over
- have diabetes mellitus, except where treatment is by diet alone.



### Where do I get a repeat prescription?

Your GP will be able to prescribe all your medications. You should ensure you never run out of your prescribed medications.

## Understanding your blood test results

Your kidney function will be measured using estimated glomerular filtration rate or eGFR. This is the rate at which blood is filtered by the kidneys and can also be referred to as the percentage of normal kidney function.

The normal eGFR is about 100 in young adults. Kidney function decreases with age so many healthy people in their 80s will have an eGFR of 40–50.

This table shows the likely treatment you will need depending on your eGFR results.

eGFR	CKD Stage	Treatment
90 – 100	Stage 1	<ul style="list-style-type: none"><li>• Annual blood, urine and blood pressure tests</li><li>• Adopt healthy lifestyle</li></ul>
60 – 90	Stage 2	<ul style="list-style-type: none"><li>• Annual blood, urine and blood pressure tests</li><li>• Adopt healthy lifestyle</li></ul>
30 – 60	Stage 3	<ul style="list-style-type: none"><li>• Annual blood, urine and blood pressure tests</li><li>• Adopt healthy lifestyle</li></ul>
15 – 30	Stage 4	<ul style="list-style-type: none"><li>• Regular attendance at kidney clinic</li><li>• Start learning about treatment choices for kidney failure</li></ul>
Less than 15	Stage 5	<ul style="list-style-type: none"><li>• Start treatment for kidney failure: dialysis, transplant or conservative management</li></ul>

The following blood tests may also be done to monitor your health:

**Bicarbonate** acceptable range: 21-30mmol/l

When kidneys do not work properly acid can build up in your body. This can cause the bicarbonate level in your blood to drop, which is bad for your heart and may also hasten the deterioration in your kidney function.

**Calcium** normal range: 2.2 – 2.65 mmol/l

Calcium is important for healthy bones and so your nerves and muscles work properly. High and low levels of calcium can be harmful to your bones and your heart.

**Cholesterol** normal range: less than 5.5 mmol/l

A fatty substance found in the body which can cause narrowing of the blood vessels.

**Haemoglobin (Hb)** normal range: 12 – 15g/dl for women and 13 – 17g/dl for men.

Hb is a measure of how many red blood cells you have in your body. If you are anaemic you will have low levels of Hb which can make you tired and short of breath. If you have CKD, treatment to correct the anaemia will be recommended if your Hb level falls below 11g/dl.

**Phosphate** normal range: 0.8-1.5mmol/l

Phosphate is a mineral found in your body and in many foods. High levels of phosphate can be harmful to your bones and your heart.

Staff at the kidney clinic will explain your blood test results to you. You will also receive a copy of the letter we send to your GP which details your blood test results. If you are being followed up by your GP phone the surgery for your results.

If you are attending the kidney clinic regularly you may wish to register with Renal PatientView which enables you to view your latest blood test results online: [www.renalpatientview.org](http://www.renalpatientview.org)

# Glossary

This glossary provides brief explanations of the various technical words and abbreviations used when talking about chronic kidney disease (CKD) and its treatment.

## Anaemia

A shortage of red blood cells in the body. Can be caused by CKD.

## Arteries

Blood vessels that carry blood from the heart to the rest of the body.

## Bladder

Where urine is stored before being passed from the body.

## Blood pressure (BP)

The pressure that your blood exerts against the walls of your arteries as it flows through them.

## Blood vessels

Carry blood around your body. The main blood vessels are the arteries and the veins.

## Body mass index (BMI)

A measure of your weight relative to your height, which is associated with your body fat and health risk.

## Cholesterol

A fatty substance found in the body, can cause narrowing of the blood vessels.

## Conservative management

Managing the symptoms of CKD stage 5 (kidney failure) without the use of dialysis or a transplant.

## Dialysis

A treatment for CKD stage 5. It is an artificial process where toxic waste products of food and excess water are removed from the body. Dialysis takes over some of the work normally performed by healthy kidneys. This may be done at home or in a dialysis unit. There are two types of dialysis: peritoneal dialysis and haemodialysis.

## eGFR

Abbreviation for estimated glomerular filtration rate, which is a measurement of kidney function.

## Erythropoietin

A hormone, made by your kidneys, which stimulates your bone marrow to produce red blood cells.

## Haemodialysis

A form of dialysis where your blood is cleaned outside your body, via a machine called a dialysis machine or kidney machine. This is done either in a dialysis unit or at home.

## Kidney biopsy

Where a tiny piece of tissue is removed from the kidney and examined under a microscope. A kidney biopsy is a medical test that can identify the cause of CKD.

## Peritoneal dialysis

A form of dialysis that takes place inside your abdomen. Bags of dialysis fluid are drained in and out of your abdomen via a small plastic tube or catheter. This is done at home.

## Toxins (poisons)

One of the main functions of your kidneys is to remove toxins from your blood.

## Transplant kidney

A kidney transplant operation is when a healthy kidney from one person is placed in the body of another person with kidney disease. A kidney can either be donated by someone who has died or from a living person.

## Ultrasound scan

This is a procedure that creates an image of an organ in the body.

## Ureters

The tubes that take urine from your kidneys to your bladder.

## Urethra

The body's tube that takes urine from your bladder out of your body.

## Urine

The liquid produced by your kidneys, consisting of the toxic waste products of food and the excess water from your blood.

## Veins

Blood vessels which carry blood from your body back to your heart.

## More information and support

### Kidney services at Guy's:

#### **Kidney Clinic,**

4th floor, Tower Wing

Guy's Hospital, Great Maze Pond, London SE1 9RT

Tel: 020 7188 5664

[www.gstt.nhs.uk](http://www.gstt.nhs.uk)

### Kidney support associations:

#### **Guy's and St Thomas' Kidney Patients' Association**

Renal Offices, 6th Floor, Borough Wing

Guy's Hospital, Great Maze Pond, London SE1 9RT

[www.gsttkpa.org](http://www.gsttkpa.org)

#### **British Kidney Patient Association (BKPA)**

3 The Windmills, St Mary's Close

Turk Street, Alton GU34 1EF

Tel: 01420 541424

[www.britishkidney-pa.co.uk](http://www.britishkidney-pa.co.uk)

#### **Kidney Research UK**

Nene Hall, Lynch Wood Park

Peterborough PE2 6FZ

Tel: 0845 070 7601

[www.kidneyresearchuk.org](http://www.kidneyresearchuk.org)

#### **National Kidney Federation**

The Point, Coach Road, Shireoaks

Worksop, Notts S81 8BW

Tel: 0845 601 02 09

[www.kidney.org.uk](http://www.kidney.org.uk)

### Further resources:

#### **[www.mykidney.org.uk](http://www.mykidney.org.uk)**

This website has been put together by clinicians in the kidney units at Guy's and St Thomas' NHS Foundation Trust and King's College Hospital NHS Foundation Trust in collaboration with kidney patients. It is informed by patients' personal experiences of kidney care. The information within it aims to help people understand more about kidney disease and how to live with it.

#### **Living with Kidney Disease**

What you should know (DVD)

Available from Kidney Research UK.

#### **Your kidneys, your choice**

A guide to treatment choices for CKD stage 5 (booklet and DVD)

Available from the kidney clinic at Guy's.

This booklet has been produced by patients, carers and staff at Guy's and St Thomas' NHS Foundation Trust. We would like to thank all involved for their contribution. This booklet is meant for information purposes only and does not replace the detailed discussions you have with your consultant and other healthcare professionals.

### **Language support services –**

If you need an interpreter or information about your care in a different language or format, please get in touch using the following contact details.

**t:** 020 7188 8815   **f:** 020 7188 5953

### **Patient Advice and Liaison Service (PALS) –**

To make comments or raise concerns about the Trust's services, please contact PALS. Ask a member of staff to direct you to the PALS office or:

**t:** 020 7188 8801 at St Thomas'

**t:** 020 7188 8803 at Guy's

**e:** [pals@gstt.nhs.uk](mailto:pals@gstt.nhs.uk)

### **Knowledge & Information Centre (KIC) –**

For more information about health conditions, support groups and local services, or to search the internet and send emails, please visit the KIC on the Ground Floor, North Wing, St Thomas' Hospital.

**t:** 020 7188 3416

### **Guy's and St Thomas' NHS Foundation Trust**

[www.guysandstthomas.nhs.uk](http://www.guysandstthomas.nhs.uk)

Switchboard: 020 7188 7188

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