

Exercise includes activities like riding a bike, walking the dog or even climbing the stairs. As long as it keeps you moving and you do it regularly, it will help to get you fitter

## What I tell my patients about exercise

Physical inactivity is now recognised as the developed world's biggest health problem, and the prescription of exercise for the treatment of chronic disease is, thankfully, becoming more established.<sup>1</sup> Unfortunately, kidney patients have been rather neglected in this regard compared with some other clinical services, such as those for heart and lung disease. At the moment, very few UK renal units offer any kind of exercise advice or support for their patients. However, recently, there has been quite a lot more research into the role of exercise in the management of kidney disease, and we are beginning to see that it can be very beneficial indeed.<sup>2</sup> We need to do more studies to find out the best exercise regimes for kidney patients and to discover the best ways of helping people take up an exercise habit and

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stick to it. But, in the meantime, we hope that the following advice will be helpful.

The main thing to remember about exercise is that everyone is different. Each person has their own individual reasons for exercising, their own preferences and dislikes, and their own lifestyle to fit it

into. There is no 'one size fits all' solution, but there is something for everyone. Some people have been active all their lives and are very motivated but, when newly diagnosed with chronic kidney disease, have no idea whether to modify their activity or if they should even exercise at all. They may just need 'permission' and some guidance about 'red flags' to look out for. Others have never been active and have an unpleasant impression of exercise, or are afraid of feeling physically embarrassed or culturally uncomfortable in a gym. These people may need more help to identify reasons to become more active, to find activities that suit them, and to set realistic and meaningful action plans and goals.

### Why is exercise so important?

Human beings evolved over thousands of years as nomadic hunter-gatherers, who had to work hard to find food and were active for most of their waking hours. Our bodies are designed for this, and our metabolism is set up to support continuous physical activity. Today's easy lifestyles, where most of us do not have to do much in the way of physical work, do not suit the human body at all. If we do not use our bodies as nature intended, they deteriorate and start to go wrong. We know that being inactive increases the risk of developing long-term health problems, such as heart disease, strokes, diabetes, cancer, dementia, depression and some types of kidney disease. Exercise is also used as part of the treatment of many of these diseases.

### What is 'exercise'?

When you hear that word, maybe you think of our Olympic heroes, pushing themselves to the utmost extremes of effort to win a medal? Or do you think of young, fit people working out in the gym, running marathons or doing high-energy aerobics classes? If so, you may be thinking that it is not for you; but what about going for a bike ride with the family, walking the dog, or even climbing the stairs? 'Exercise' is simply physical activity that you do over and above your normal daily tasks, for pleasure or because it's good for you. Therefore, 'exercise' means different

things for different people – but anyone can 'exercise' by increasing whatever amount of physical activity they normally do. For example, if you usually take the lift up to the second floor, you can do some 'exercise' by climbing the stairs instead.

There are two main types of exercise – aerobic and resistance (see Table 1). You need to do a bit of both types, but not necessarily in the same session.

### How can exercise help people with kidney disease?

Unfortunately, people with kidney disease can suffer from a variety of symptoms and health problems, and it is not surprising that this can lead to anxiety, depression and a reduced ability to enjoy the pleasures of everyday life. Research has shown that being physically active can have a beneficial effect on many of the health issues associated with kidney problems. Three of the main ways exercise can help are described below.

#### *Exercise helps to protect the heart*

You probably know that having kidney disease makes it more likely for an individual to develop heart disease as well. It is particularly important to look after your heart; for example, by giving up smoking and keeping your blood pressure and cholesterol levels under control. In addition, regular exercise really helps to protect your heart and keep it in good shape by lowering blood pressure, controlling cholesterol, preventing diabetes and improving the condition of the blood vessels.

#### *Exercise keeps your muscles strong*

People with kidney disease often notice that they feel weaker and more tired than they used to, and that their muscles tend to shrink and waste away. This happens to everyone if they do not use their muscles and keep them strong, but it can be worse if your kidneys do not work properly because of the extra toxins in the blood. Muscles are really important for everyone – not only weightlifters and gym enthusiasts, but anyone who just wants to be able to move around, climb the stairs or get up out of a chair.

**Table 1.** Types of exercise

<b>Aerobic or cardiovascular</b>	The type that makes you feel warm and out of breath, like walking, running, swimming or cycling. Aerobic exercise strengthens the heart, blood vessels and lungs
<b>Resistance or strength training</b>	Uses weights (or your own bodyweight) to build up and strengthen the muscles. Stronger muscles makes aerobic exercise easier!
<b>Warming up</b>	Every exercise session should start with ten minutes or so of gentle warm-up activity to loosen your muscles and joints and get your heart and lungs working gradually
<b>Cooling down</b>	At the end of your exercise, you should gradually cool down with gentle activity until your heartbeat and breathing are back to normal. Do not suddenly stop – let your body adjust to the changes. It is also useful to gently stretch the muscles that you have been using

**Table 2.** Exercise guidelines

<b>Aerobic exercise</b>	
<b>What?</b>	Anything you enjoy! Walking, swimming, cycling, dancing, using gym equipment or aerobic classes – it is up to you, and you can use a mixture of different activities if you want to
<b>How often?</b>	3–4 times a week (every other day)
<b>How long?</b>	Aim for 30 minutes of continuous exercise. However, if you cannot manage this to begin with, it does not matter – just do what you can and try to increase the time a little bit each time. You can do two 15-minute sessions in a day instead of one 30-minute session if that works better for you
<b>How hard?</b>	Find a level of effort where you are slightly out of breath but not gasping. Your breathing level must allow you to talk to someone while you are exercising, but only in short sentences before you need to catch your breath. If you are chattering away too easily, you need to work a bit harder!
<b>A suggestion</b>	Aerobic exercise can be as simple as going for a walk. If this is what you choose, you could try using a pedometer. This small device clips on to your clothing and counts the number of steps you take. It is a great way of measuring your progress – write down how many steps you take each time you go out, and try to do a few more each week. A pedometer should cost less than £5 and they are widely available in sports shops or online
<b>Resistance exercise</b>	
<b>What?</b>	To build strong and healthy muscles, you need to challenge your muscles with weights. If you go to the gym you can use the machines and equipment there – ask the staff to show you how. But you can do resistance training at home too, using simple things like tins of beans. For some exercises you can use your own bodyweight (see suggestion below).
<b>How often?</b>	2–3 times a week
<b>How hard?</b>	Choose a weight that you can lift 10–12 times before you need to rest – you may need lighter or heavier weights for different exercises. Always lift weights slowly, using very controlled movements, and keep going until your muscles tire – this will tell them that they need to get stronger. Keep breathing normally, do not hold your breath, and avoid lifting weights above your head
<b>A suggestion</b>	Concentrate on the large muscles in your lower body (legs) as these are the ones that will help you most in your everyday activities. Here is a simple resistance exercise you can do at home. Sit on an upright chair like a dining chair, with your feet flat on the floor. Slowly stand up and then slowly sit down again. Repeat this as many times as you can, then have a rest and try to do a few more. Try not to use your hands to help – keep your arms crossed in front of you, if you can. If you do this regularly, you will find that it gets easier and you are able to stand up and sit down more times before you have to rest. Your muscles have become stronger!

Muscles are also important for general health, because they control the way the body uses blood sugar and fat. Having good muscles and using them regularly really helps to prevent diabetes and keep the heart healthy.

### **Exercise helps you to live a better life**

We all know that the likes of Mo Farah and Usain Bolt are going to have to keep up their training if they want to win gold again at the 2016 Rio Olympics. If they stop exercising now, they won't stand a chance because their physical fitness will decline. The same principle applies to everyone else. You may not be aiming to win the 5,000 metres or run a record-breaking 100 metres, but you will certainly be able to think of some physical activity that is important to you – be it playing a round of golf, taking your grandchildren to the park, walking round the shops on a Saturday afternoon, or being able to climb the stairs and look after yourself in your own home. If you do not keep yourself active, your fitness will decline in just the same way as that of an athlete and there will come a time when you will not be able to do many of those things any more.

Everyone has the capacity to improve their physical condition and get stronger, no matter where they start. In fact, the least active people tend to notice the biggest improvements when they take up exercise.

### **Are there any precautions before I start?**

Moderate regular exercise is good for nearly everyone, but there are some people who need to be extra careful and may need special advice and help with their exercise programme. Please ask your doctor or healthcare professional, especially:

- If you have more advanced kidney disease or kidney failure
- If you have other health problems in addition to kidney disease, such as heart or liver conditions, or difficulties with blood pressure control
- If you have problems that affect your mobility or balance
- If you are diabetic. Exercise can help diabetes but you should ask about controlling your blood sugar levels – and please look after your feet.

Once you have decided to do some exercise, you should remember the following simple guidelines:

- Do not exercise if you are feeling unwell.
- During exercise, STOP if you feel unusually weak or breathless, if you feel dizzy or nauseous, or if you feel pain.

### Where and how can I exercise?

A few kidney units in the UK offer exercise help and advice to their patients. Ask whether yours is one of them – and if not, ask why. If the doctors or other healthcare staff need more information about exercise for kidney patients, they can contact the authors of this article or the British Renal Society Rehab Network.<sup>3</sup>

At some haemodialysis units, patients can exercise during dialysis sessions using specially-adapted exercise bikes. This is a great way to get your exercise in a supported environment, so if you are offered the chance to try it out – go for it! Many patients find that it really helps them to build up their physical condition and become more active in their home lives as well. It also helps to pass the time while dialysing.

Some GPs can arrange for patients to see a specialist fitness instructor or take part in exercise classes. Ask at your surgery to find out if you are eligible for this type of support.

You can also try out your local gym or leisure centre yourself. Maybe you are worried that it will be full of muscular young people in Lycra, and that you will not fit in there? Go and have a look – many gyms and leisure centres are actually full of ‘normal’ people just like you, especially in the daytime. Some have special times of day for older people or for ladies only, and offer the chance to enjoy the facilities and make new ‘fitness friends’.

Best of all, do it yourself! Think of something you really enjoy and make it a priority in your life. It might be walking, swimming, dancing, cycling, or a mixture of different activities – as long as it keeps you moving and you do it regularly, it will help to get you fitter.

How much exercise should I do? This varies from person to person depending on their condition and what they are hoping to achieve. See Table 2 for some general guidelines. Always start gently and build up gradually – just try it out and see how you go. A small increase in activity is better than none at all, so do not be put off by thinking that you have to achieve the impossible.

The main thing about exercise is to do it regularly. There is no point in doing one or two sessions and then giving up – it will only do you good if you keep it up.

I am still not sure I can do it! Exercise does not mean that you have to run a marathon. Everyone is

different, so do not be worried that it will be too hard for you. Just do what you can manage. Start gently and build up gradually, and do not expect too much of yourself too soon. The key is to push yourself just a little bit, and to keep doing it regularly. Write down the reasons you have decided to take up exercise, and what you hope you will gain from it. Set yourself some goals and write them down too. Do not be too ambitious – start with very modest goals that you are pretty sure you can achieve quite soon, and then set new ones every few weeks.

You may have to adjust your lifestyle and routine to fit in your new exercise habit, but make it a priority – you will be the one who benefits and it will be worth the effort. It is a good idea to keep an exercise diary where you write down what you have done, how long you did it for, how hard you worked, and how it felt. That way you can track your progress, and you will be able to see what works best for you.

Another great idea is to get other people to exercise with you, to make it an enjoyable social experience and to keep each other going. This could be friends, your spouse, other relatives, your children or your grandchildren. Exercise is good for everyone, and getting the younger generation into the exercise habit is a wonderful gift to them for a healthy future ■

#### Declaration of interest

The authors declare there is no conflict of interest.

#### References

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## Key points

- Recent research shows that exercise plays a very beneficial role in the management of kidney disease.
- Exercise includes activities like riding a bike, walking the dog or even climbing the stairs.
- Your kidney unit or GP may be able to offer advice or help with classes, but you can also just join a gym or leisure centre yourself.
- It is always best to start exercise gently and build up gradually. It should also be done on a regular basis and involve a mix of aerobic and resistance training.

■ *What I tell my patients about ...* is a patient information service specifically designed for renal units to use with their patients. You can now view this, and all of the previous *What I tell my patients about ...* articles, online and download them free of charge via [www.bjrm.co.uk/patient-information](http://www.bjrm.co.uk/patient-information)