

Exercise for Kidney Patients

Renal Services

Information for Patients



University Hospitals of Leicester
NHS Trust



Caring at its best

Introduction

Regular exercise can:

- Give you more energy
- Make you feel stronger
- Improve your mood and quality of life
- Reduce stress and help you sleep
- Help your digestion and prevent excessive weight gain
- Help control blood pressure
- Reduce cholesterol levels and your chance of developing heart disease
- Strengthen your heart and bones
- Help reduce your blood sugar
- Improve the efficiency of dialysis if this is relevant to you
- Overall, make you feel good ...

Many kidney patients believe they cannot exercise. But most can exercise. It will help you feel better, stronger and more in control of your health. You just have to tailor the exercise to you and your circumstances. Whether you want to return to work, do daily household activities, or manage your own health care, exercise will help you.

This guide answers some of the questions you may have and will help you establish an exercise programme to suit you.

Why should I exercise?

People with kidney problems often suffer from a lack of physical strength, tiredness and muscle wasting, which reduces their capacity for physical activity.

There are three main reasons why this happens:

- toxins build up in the body because the kidneys cannot excrete them properly;
- kidney patients often become anaemic, which causes tiredness and breathlessness;
- this means that the patient doesn't feel like doing much, so they lose fitness and strength, and feel even more tired.

How do I start an exercise programme?

There are three basic steps for you to take to start an exercise programme:

1 Talk to the people involved in your care

They can tell what exercise is best for you because they know about your condition and treatment and what you can and can't do. Your carers will probably be very happy that you are asking about exercise.

2 Plan your exercise programme

When planning an exercise programme, you need to look at four things:

- the type of exercise
- the length of time you spend exercising
- how often you exercise
- how hard you work while exercising.

Your exercise plan

Type of exercise

A good exercise programme consists of three different kinds of exercise : cardiovascular (for heart and lungs), resistance and stretching. Each of these has different health benefits and you should try to do some of each kind.

Warming up and cooling down

Both cardiovascular and resistance sessions must always start with a 5 minute gentle warm-up with some light cardiovascular activity, followed by some stretching. Then you can work harder for a while, before slowing down again towards the end. Finish with some more stretches.

Cardiovascular exercise

This is a continuous activity such as walking or cycling, using large muscles. It benefits your whole body and makes you feel good. Think about what kind of thing you enjoy. Most people like walking. This is an ideal exercise, and a very good way to start. Others may want to do something else such as cycling, swimming or using gym equipment. It's up to you! You can combine different kinds of exercise on different days. We are introducing exercise bikes into some dialysis units and you may have the opportunity to use one of these.

Resistance exercise

This is for muscle strengthening, but will also benefit your whole body. Kidney patients often suffer from muscle wasting and resistance exercise can help with this. Building stronger muscles will help you do other forms of exercise more easily as well.

It is not necessary to lift heavy weights. It is better to use smaller weights and do more repetitions. We have included some suggestions of exercises for you to do in this guide.

S-t-r-e-t-c-h-i-n-g

It is easier to start exercising if you stretch first. Stretching is something almost all patients can do.

We have included some stretching exercises for you in this guide.

How long to exercise

Work towards 30 minutes a session. You should build up gradually to this level.

There is nothing magical about 30 minutes. If you feel like walking for 45 to 60 minutes, go ahead. Just be sure to follow the advice listed under 'What are the signs that I should stop exercising?' in this guide.

How often to exercise

Exercise at least three days a week. These should be non-consecutive days, for example, Monday, Wednesday and Friday. Three days a week is the minimum requirement to achieve the benefits of your exercise. You can do it more often if you want to.

How hard to work while exercising

This is the most difficult to talk about without knowing your own exercise capacity. Usually, the following ideas are helpful:

- Your breathing should not be so hard that you cannot talk with someone exercising with you. (Try to get an exercise partner such as a family member or a friend.) You should feel completely normal within one hour after exercising. If not, slow down next time.
- You should not feel so much muscle soreness that it keeps you from exercising the next session.

The most important thing is to start slowly and progress gradually, allowing your body to adapt to the increased levels of activity.

Making the most of your exercise

When you exercise, you need to make sure you are doing enough work to benefit your health and increase your capacity to do the things you want to do in life. But don't do so much that it hurts or you feel unwell.

When we are assessing with patients how much exercise they should do, we use the **Borg 15-point Perceived Exertion Scale**. This ranges from 6 to 20. At point 6 you would be sitting doing nothing. At point 20 you would have done so much exercise that you were exhausted and could do no more. You need to aim for a steady exercising pace, between 12 and 14.

While you are exercising, rate yourself against the Borg scale to think about how much you are exerting yourself. How much effort are you putting in, how is your breathing and how do you feel? If you rate yourself at 11 on the scale – fairly light – try exercising harder to reach 12, 13 or 14. If you rate yourself at 17, you probably need to be working less hard at your exercise. As you build up your endurance, you should find you can do more work within the 'moderately hard' 12 to 14 scale.

Making the most of your exercise

Borg 15-point Perceived Exertion Scale

6	No exertion at all
7	Very, very light
8	
9	Very light
10	
11	Fairly light
12	
13	Moderately hard
14	
15	Hard
16	
17	Very hard
18	
19	Very, very hard
20	Exhaustion

Get started!

Don't be nervous or think it's going to be too hard. Many people with renal failure say they are too tired to exercise. They think that if they exercise they will be even more tired. The fact is, even a little bit of exercise, 15-20 minutes a day, will actually help you feel LESS tired.

Start slowly and just do what you can – you aren't aiming to become a marathon runner. As long as you keep doing it regularly (at least 3-4 times a week), you will gradually get stronger and be able to do more and more.

Develop Flexibility - Stretching Exercises

Neck Stretch - *Neck*

- Sit or stand upright looking straight ahead
- Slowly lower your right ear to your right shoulder
- Bring your head back up and lower your left ear to your left ear
- Repeat a few times until your neck muscles feel looser



Head Turn - *Neck*

- Slowly turn your head to the right looking over your right shoulder
- Slowly turn your head back to centre
- Then turn your head to the left to look over your left shoulder
- Slowly return your head to the centre



Develop Flexibility - Stretching Exercises

Shoulder Shrug - *Shoulders, chest and upper back*

- Sit or stand upright
- Shrug your shoulders up to your ears, hold and repeat



Chest and Upper Back Stretch - *Shoulders, upper back and chest*

- Sit or stand upright
- Put your hands on your shoulders and elbows out to the side
- Touch your elbows together in front of your chest
- Move your elbows out wide again and squeeze your shoulder blades together



Develop Flexibility - Stretching Exercises

Arm Stretch and Wrist

Rotation - *Arms, Wrists and Shoulders*

- Sit or stand upright
- Start with your arms straight by your side
- Bring your arms up straight in front of you at shoulder height
- Make small circles with your wrists to the right and then to the left
- Bring your arms back down to your side



Side Stretch - *Neck and Side*

- Sit or Stand upright
- Bring your hands up over your head to stretch up to the ceiling
- Lean over to your right, you should feel a stretch down your left side
- Move back to the centre
- Now lean over to your left side
- Move back to the centre



Develop Flexibility - Stretching Exercises

Single Knee Pull - *Lower back and back of thigh - hamstrings*

- Sit up straight
- Bend over and pull your knee towards your chest holding it with both hands
- Try to touch your forehead to your knee, or as close as you can get to it
- Hold for about 10 seconds and lower your knee back down
- Repeat with the other leg



Hamstring Stretch - *Back of your legs - Hamstrings*

- Sit upright in a chair or on the floor
- Using a towel, place it under your foot and straighten your leg lifting it off the floor
- Gently pull the ends of the towel towards you flexing your foot towards you
- Put your foot back to the floor and repeat using the other leg
- If you find this easy sit on the floor with one leg straight in front and reach down to your toes



Develop Flexibility - Stretching Exercises

Quadriceps Stretch - *Front of thigh - quadriceps*

- Stand upright and hold on to something for support
- Hold onto your right ankle using your right hand
- Bring your foot up to your bum keeping your knees together
- Release your foot to the floor and repeat using the other leg



Calf Stretch Back of lower legs – *Calf*

- Stand up straight and hold onto something for support
- Step your right leg straight back and make sure your heel is pressed onto the floor
- Bend your front leg slightly, making you lean forwards
- Repeat with the other leg
- If you can't feel the stretch, move your back leg slightly further back



Develop Muscle Strength - Resistance Exercises

You don't need expensive equipment to do resistance exercise. You can use things that are around your house. If you use milk bottles you can vary their weight by varying the amount of liquid. Tins of food also make good weights.



Develop Muscle Strength - Resistance Exercises

Bicep Curl Front of arms - *biceps*

- Sit or stand upright holding your weight by your side
- Keeping your elbows by your side bend your arms at the elbows and bring your hands up towards your shoulder
- Repeat as many times as you feel you can



Shoulder Press - Shoulders *and upper back*

- With your arms raised bend your elbows at shoulder height – just like in the photo
- Push your arms straight up in the air
- Then move them back down to the start position with your elbows bent
- Repeat as many times as you can



Develop Muscle Strength - Resistance Exercises

Side Raise - *Side of shoulders*

- Stand upright holding your weights by your side
- With straight arms bring your arms out to the side in line with your shoulder, making sure you keep your back straight
- Under control, return your arms to your side and repeat as many times as you can



Front Shoulder Raise - *front of shoulders*

- Stand upright holding your weights by your side
- With straight arms raise your hands in front of you to your shoulder height
- Under control, return your arms back down to your sides



Develop Muscle Strength - Resistance Exercises

Tricep Extension - *Back of upper arm - triceps*

- Stand upright with one arm above your head and your other supporting the elbow
- Slowly bend your arm and lower your arm behind your head
- Slowly bring your arm back up again
- Repeat as many times as you can then swap arms



Wall Push up - *Upper arms – biceps and triceps*

- Stand straight facing a wall
- Place both hands on the wall at shoulder height
- Lean forwards bending your elbows until your nose nearly touches the wall
- Push away from the wall until you are upright
- Repeat



Develop Muscle Strength - Resistance Exercises

Bench Press - *Chest*

- Lie flat on your back with your knees bent
- Start with your arms bent and hands directly over your chest and elbows tucked into your side
- Push your arms straight up into the air
- Then under control return them to the start position



Sit up - *Stomach - abdominals*

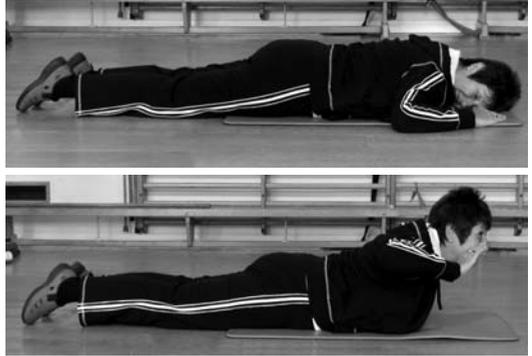
- Lie flat on the floor with your knees bent
- With your hands by your head, curl your head and shoulders until your shoulder blades are off the floor
- Slowly lower



Develop Muscle Strength - Resistance Exercises

Back Extension - *back*

- Lie on your front with your hands facing palms down by your head
- Slowly raise your head and shoulders off the floor
- Hold for a few seconds and slowly return your head and shoulders back down to the floor



Side Leg Lift - *Hip*

- Lie on your side
- Use the arm underneath you to support your head and the other in front for support
- Slowly raise your top leg and replace back down to the floor
- Turn over and repeat with the other leg



Develop Muscle Strength - Resistance Exercises

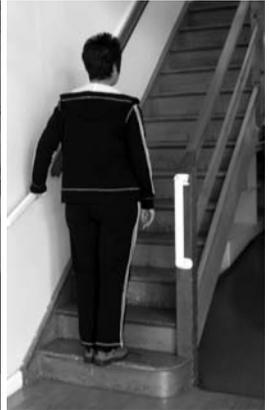
Chair Squat - *Top of legs – Hamstring and quadriceps*

- Stand in front of a sturdy chair and reach back and place your hand on the arms for balance
- Have your feet shoulder width apart and go to sit down, but don't
- Hold this position for a few seconds and push back up using your legs to stand



Stair Step - *thigh - quadriceps*

- Stand up straight in front of a small step
- Hold on to something close to you if you wish, or place both hands on your hips
- Step up onto the step using your right foot and then your left
- Step back down with your right then left



Develop Muscle Strength - Resistance Exercises

Lower Leg Extension - *Thigh - Quadriceps*

- Sit upright with both feet flat on the floor
- Hold onto the seat for support
- Lift one leg off the floor and hold it out straight
- Bend your knee and slowly lower your foot to the floor
- Repeat with the opposite leg



Back Leg Swing - *back of legs - hamstrings and back*

- Stand upright in front of a chair and hold the back for support
- Keeping your back straight bring one leg behind you pointing your toes
- Slowly return your foot to the floor
- It's important not to arch your back



Develop Muscle Strength - Resistance Exercises

Heel Raise - *Lower legs - Calf*

- Stand in front of a chair and hold on to the back for support
- With both feet, lift your heels and stand on the balls of your feet
- Slowly return to standing
- If you find this easy put your hands on your hips



Lunge - *Lower legs - Quadriceps and hamstrings and bum*

- Find something you can hold onto, a broom for example
- Step your left foot out in front with the heel of your back foot slightly off the floor
- Keeping your back straight bend your front knee keeping it over your foot.
- Hold for a few seconds and push back up
- Repeat using the other leg



Develop Endurance - Cardiovascular Exercises



Develop Endurance - Cardiovascular Exercises

But also enjoy your favourite activities...



Frequently asked questions

What do I need for exercise sessions?

A decision

Give exercise a try for a period of three months. One exercise session will not help. As the time goes by, you will start to feel the benefit. Consider exercise to be a part of your treatment, together with your diet and medicines.

Persistence

There will be times that you will miss your exercise sessions for any number of reasons, including hospitalisations. Don't give up! Start again from a lower threshold and you will soon work your fitness up again. There will be good days and bad days. If some days you feel very tired, you can exercise for a shorter period of time. Even five minutes is better than nothing!

Clothes and shoes

You don't need fancy or expensive sports clothes for exercise. Wear comfortable shoes (not high heels!) and clothes that are not too tight. If you have several layers of light clothing you can remove or add some of them as needed.

I'm so busy. How can I find time to exercise?

Anyone can work some exercise into the daily schedule. Remember – it will really help you, so it's worth making it a priority.

Frequently asked questions

You can do many exercises at home, outdoors or even at work. Here are some suggestions:

- Exercise while watching TV. You can do stretching exercises or use free weights or equipment such as an exercise bike;
- Exercise around the neighbourhood. You can walk or cycle to the shops, work in the garden, mow the lawn or take out a ball or Frisbee and offer to play a game with the kids;
- Get your family or friends to exercise with you – it's good for them too!
- Exercise at work. Park your car at a distance or get off the bus a stop early and walk 10 minutes to the office. Use the stairs instead of the lift, and take a brisk walk in your lunch break.

Are there any times when I should not exercise?

Yes. You should not exercise without talking with your doctor if any of the following occurs:

- you have a fever
- you have changed your dialysis schedule
- you have changed your medicine schedule
- your physical condition has changed
- you have eaten too much
- the weather is very hot and humid, unless you exercise in an air-conditioned place
- you have joint or bone problems that become worse with exercise

If you stop exercising for any of these reasons, speak to your doctor before beginning again.

What are the signs that I should stop exercising?

Stop at once if you notice any of the following during an exercise session:

- If you feel chest pain
- If you feel irregular or rapid heart beats
- If you feel sick to your stomach
- If you get leg cramps
- If you feel dizzy or light-headed.

If you need any more advice, please talk to the doctors, nurses or other members of the clinical team you see regularly.

If you have any questions about our research into the effects of exercise on people with kidney disease, members of the Renal Research Group will be happy to talk to you. Please contact the team's senior scientist and immunologist on 0116 252 5033 or email aa50@le.ac.uk

If you would like this information in another language or format, please contact the Service Equality Manager on 0116 258 4382

ਆਪਨਿ ਯਦਿ ਐ ਲਿਫਲੇਟੋਰ ਅਨੁਵਾਦ - ਲਿਖਿਤ ਚਾ ਅਡਿਓ ਟੇਪ ਆ ਚਾਨ, ਤਾਹਲੇ ਅਨੁਗ੍ਰਹ ਕਰੇ ਸਾਰ੍ਵਿਸ਼ ਇਕੁਯਾਲਿਟੀ ਮਿਆਨੇਜ਼ਰ ਡੇਭ ਬੇਕਾਰ ਆਰ ਸਾਥੇ 0116 2584382 ਨਾਬਾਰੇ ਯੋਗਾਯੋਗ ਕਰਨ ।

ਯਦਿ ਆਪ ਕੋ ਇਸ ਲੀਫਲਿਟ ਕਾ ਲਿਖਤੀ ਯਾ ਟੇਪ ਪਰ ਅਨੁਵਾਦ ਚਾਹਿਏ ਤੋ ਕ੍ਰੁਪਯਾ ਡੈਭ ਬੇਕਰ, ਸਰ੍ਵਿਸ਼ ਇਕੁਯਾਲਿਟੀ ਮੈਨੇਜਰ ਸੇ 0116 2584382 ਪਰ ਸੰਪਰਕ ਕੀਜਿਏ ।

ਐ ਨਮਨੇ ਆ ਪਤ੍ਰਿਕਾਨੁੰ ਭੇਜਿਨ ਅਥਵਾ ਟੇਪ ਓਪਰ ਆਖਾਨਰ ਐਠਨੁੰ ਭੋਯ ਨੋ ਮਭੇਰਆਨੀ ਕਰੀ ਡੇਭ ਐਕਰ, ਸਰ੍ਵਿਸ਼ ਇਕੁਯਾਲਿਟੀ ਮੈਨੇਜਰ ਨੋ 0116 2584382 ਓਪਰ ਸੰਪਰਕ ਕਰੋ.

Haddaad rabto warqadan oo turjuman oo ku duuban cajalad ama qoraal ah fadlan la xiriiir, Maamulaha Adeegga Sinaanta 0116 258 4382.

ਜੇਕਰ ਤੁਹਾਨੂੰ ਇਸ ਲੀਫਲਿਟ ਦਾ ਲਿਖਤੀ ਜਾਂ ਟੇਪ ਕੀਤਾ ਅਨੁਵਾਦ ਚਾਹੀਦਾ ਹੋਵੇ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਡੈਭ ਬੇਕਰ, ਸਰਵਿਸ ਇਕੁਯਾਲਿਟੀ ਮੈਨੇਜਰ ਨਾਲ 0116, 2584382 ਤੇ ਸੰਪਰਕ ਕਰੋ ।

Eğer bu broşürün (kitapçığının) yazılı veya kasetli açıklamasını isterseniz lütfen servis müdürüne 0116 258 4382 telefonundan ulaşabilirsiniz.