

Physiotherapy advice and exercises for knee pain (osteoarthritis)

Introduction

The information and exercises in this leaflet will help you to manage your knee pain.

This leaflet has been designed by Senior Physiotherapists and it is important to follow the information carefully. If completing the exercises causes your pain to increase, please seek advice from your GP or Physiotherapist.

What is osteoarthritis?

Osteoarthritis is a chronic disease causing deterioration of the joint cartilage and the formation of new bone at the margins of the joints.

In healthy joints, cartilage covers both bone endings. This protects the bones and allows for smooth movement. The cartilage creates a gap between the bones which you can see on an X-ray.

With osteoarthritis the cartilage begins to deteriorate and you may notice pain and swelling. The pain and inflammation of osteoarthritis causes the muscles to weaken. This is one of the reasons why strengthening exercises can help you fight the effects of osteoarthritis.

What are the symptoms of osteoarthritis?

Symptoms most often develop gradually and include:

- Joint aching and soreness especially with movement
- Pain after overuse or after long periods of inactivity
- Joint swelling

Advice for living with osteoarthritis

Weight control

- If you are overweight there is an extra load through your knees which can lead to greater wear and tear
- Adjust your diet – ask your GP for advice
- Avoid carrying heavy items and use a shopping trolley or wheel barrow when possible

General advice

- Exercise all joints daily
- Get enough sleep

Walking aids

- Using a walking stick helps to preserve knee joints by decreasing the amount of stress through them
- Do not wait until you are in severe pain before using a stick
- The correct height of a stick is level with your wrist when your arm is relaxed by your side
- Always use your stick on the opposite side to the most affected knee
- Wear appropriate supportive footwear i.e. trainers

Climbing stairs, steps, kerbs

- This increases stress through the knee
- Going upstairs use the best leg up first
- Going downstairs use the worst leg down first with your walking stick

Exercise

Why do we exercise?

We exercise to:

- Regain movement/function
- Maintain or gain general fitness i.e. lose weight
- Maintain or improve movement/function i.e. training for a specific reason/event

Exercise also stimulates the body to release endorphins which are the body's natural painkillers, thereby reducing pain and increasing your pain thresholds (i.e. the level at which you feel pain).

Exercise class

The class is designed to help increase strength and movement in your knee and improve balance. You will receive an exercise programme with the exercises that you can continue at home to get the most out of the class.

Some of the exercises may give you aches and pains. This is normal and is because you are not used to doing these exercises.

You will need to wear comfortable loose clothing and supportive shoes.

Exercise advice

Set an achievable number of exercises or time yourself. Pick an exercise you enjoy and are likely to continue e.g. walking, swimming.

What to do if your pain re-occurs?

- Rest – find a position that reduces your pain to a minimal level.
- Posture – regular changes of position help prevent stiffness.
- Pain relief – don't be afraid to take short courses of painkillers to help you over the worst of your pain.
- Once the pain starts to subside, increase your activity gradually to return to your normal function. Try to think why the problem has recurred e.g. sitting too long, standing too long, gardening, lack of exercise.

If your symptoms do not improve, consult your GP

Exercises

Below is a list of exercises which can be used to assist in the movement and management of Knee Pain. These exercises may not be suitable for everyone and it is important to complete only the ones advised.

It is important that your pain is managed while completing these exercises; continue to take your prescribed analgesia. Remember that experiencing pain does not mean that you are causing damage to your body. If you have high levels of pain speak with your Doctor or Pharmacist.



Slide your heel towards your buttock bending the knee as much as possible.

Use your hands to bend further.



Lie face down on the bed or floor. Then bend and straighten the knee as much as possible



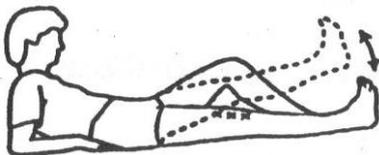
Bend your knee back as much as possible. Then place your other leg in front and use it to push further back and bend the knee more



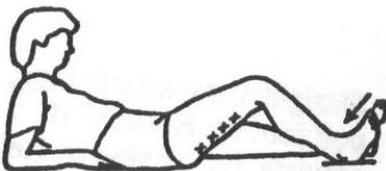
Pull your toes up towards your head and push the back of your knee down into the bed to straighten it.



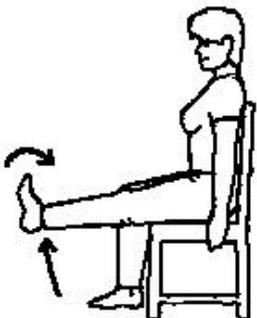
Place a cushion or rolled towel under your knee. Then pull your toes up towards your head and push knee into cushion lifting your heel off the bed.



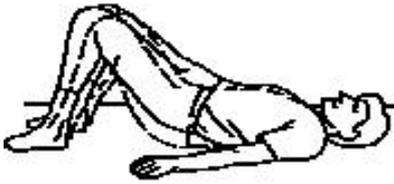
Tighten your thigh muscles and keep your knee straight. Then lift your leg approximately 10cm off the bed ensuring the knee doesn't bend.



Bend your knee up while lying down. Then push your heel into the bed or floor and tighten your muscles on the back of your thigh.



On a chair, pull your toes up towards your head. Then tighten your thigh muscle and straighten the knee.



Bend your knees up while lying down flat and lift your bottom up off the bed.

As progression place your hands across your chest.



From a chair stand up and sit down in a controlled motion while keeping your hands folded across the chest.

As a progression, carry out the exercise using a lower chair.



Place a cushion between your knees while seated.

Squeeze the cushion, then relax and repeat.



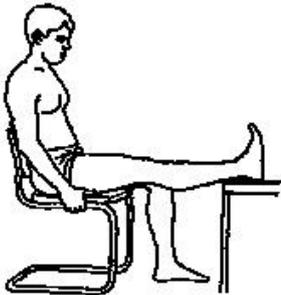
Step up onto a step ensuring your back is kept straight and your knee is kept directly over your toes.



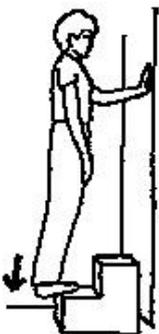
Lean against a wall with your feet shoulder width apart. Slowly bend the knees and slide down the wall in a controlled motion ensuring your knees are kept above your toes. As progression this can be done on one leg



Sit on a bed with one leg straight and the other on the floor. Feel the stretch at the back of your knee. Lean forward towards your toes ensuring the knee is kept straight



Place your foot on another chair or table etc. Let your leg straighten as much as possible in this position. To increase the stretch, gently push down on your knee.



Stand off the edge of a step with your hand on a wall or banister for balance. Let your heels drop towards the floor ensuring the knee is kept straight.



Stand while holding onto a chair for support. Bend your knee towards your bottom and take hold of the ankle or trouser leg. Ensure both knees are kept together.



Stand with one foot forwards. Bend the front knee keeping your back leg straight and heel in contact with the floor. Keep toes facing forwards placing your hands on a wall for balance.

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General Trust information

Patient Advice and Liaison Service (PALS)

PALS is a confidential service for people who would like information, help or advice about the services provided by any of our hospitals. Please call 0800 783 4372 between 10am and 4pm or e-mail lnwh-tr.PALS@nhs.net. Please note that this service does not provide clinical advice so please contact the relevant department directly to discuss any concerns or queries about your upcoming test, examination or operation.

For a translation of this leaflet or for an English version in large print, audio or Braille please ask a member of staff or call 0800 783 4372.