



Advice and exercises for osteoarthritis (OA) in your knee

Department of Physiotherapy

Information for Patients

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Introduction

Osteoarthritis (OA) causes joints to become painful and stiff. It is the most common type of arthritis in the UK. It affects the cartilage on the ends of your bones. This causes pain, swelling and problems moving the joint. Weight bearing joints such as your spine, hips and knees are most often affected.

Some of the factors that may increase your risk of having OA, are:

- previous trauma, surgery or injury.
- bone changes that cause joint deformity (joint not in the correct place).
- age your risk of having OA increases as you get older.
- family history.
- obesity being overweight puts more strain on your joints.
- gender more common in women than men.

Symptoms of OA in your knee

- pain, swelling, or tenderness in your knee.
- stiffness and problems moving the knee joint. This is worse when first getting up in the morning.
- 'creaking' sound (crepitus) in your knee joint when going up and down stairs or sitting down.
- the knee giving way when turning or walking on uneven ground.
- less strength in the muscles that move and control the joints, like those at the front or back of the thigh.

Health information and support is available at www.nhs.uk or call 111 for non-emergency medical advice

Visit www.leicestershospitals.nhs.uk for maps and information about visiting Leicester's Hospitals To give feedback about this information sheet, contact InformationForPatients@uhl-tr.nhs.uk



Who is affected?

OA is a condition linked to getting older. Trauma or injury can cause symptoms to start early in life. The effects of OA can vary from person to person. This depends on many factors such as family history, previous injury, diet, weight.

Following the advice in this booklet has shown to have the best results for people with OA in their knee joints. This is about sensible exercise, staying active, weight loss (if applicable), and trying to carry on as normal.

Managing your symptoms

These tips can help you to manage your symptoms:

Exercise:

- Daily exercise such as swimming, exercises in water and walking can help to reduce pain.
 Increasing your health and fitness will help you move more easily.
- It will help your muscles to become stronger, have less pain, help you to keep fit and move around easier.
- Your joints or muscles may be sore for a short time during or after exercise. If you continue to have pain, do less exercises.
- It may take a few weeks for you to see any change from doing these exercises.
- Start the exercises in this leaflet once a day. Go up to 2 or 3 times per day, depending on your other daily activities.

Pain during the night or stiffness in the morning: may be eased by doing gentle exercises before going to bed, and first thing in the morning.

Keep moving: to reduce pain and stiffness. This will also help to keep muscles strong.

Lifting or carrying: increases stress in the joints so try to reduce this if possible.

Pain: pain relief can help reduce pain. Talk to your pharmacist or GP.

Ice and / or heat may help your pain. You can try:

Ice: apply an ice pack, wrapped in a towel, on your knee for 15 minutes. Do this up to 4 times per day to help reduce pain and swelling. If ice does not help, do not continue to use.

Heat: having a warm bath or shower, or applying a warm wheat pack can ease stiffness in your knee.

Walking aid: to lessen the weight on your joint can ease pain. A stick or crutch is normally used on the side opposite to your painful knee.

Body weight: losing excess weight can help reduce joint pain.

Footwear: wear comfortable, supportive shoes such as trainers. Heels and thin-soled shoes may increase pain.

Exercises

The following exercises may help you. Repeat these exercises up to 3 times per day depending on your pain.



Exercise 1

Lying on your back, slide your heel up and down; bending and straightening your knee.

Hold for 5 seconds. Repeat up to 10 times.



Exercise 2

Lie on your back, with a rolled up towel under your affected knee.

Push the back of your knee into the towel to straighten your knee.

Pull your foot up and lift your straight leg 1cm off the towel.

Hold for 5 seconds. Repeat up to 10 times.



Exercise 3

Sit on a chair.

Straighten your knee; tighten the muscles on the front of your thigh and pull your foot up.

Hold for 5 seconds. Repeat up to 10 times.



Exercise 4

Sit on a chair with your feet on the floor. Slide your foot back as far as possible to bend your knee.

Hold for 5 seconds. Repeat up to 10 times.



Exercise 5

Sit on a chair and cross your arms over your chest.

Stand up from the chair without using your hands and keeping your arms crossed.

Hold for 5 seconds. Repeat up to 10 times.



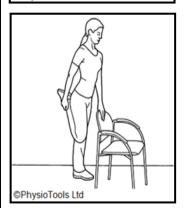
Exercise 6

Stand behind a chair and support yourself with both hands.

Slowly bend your hips and knees, trying to push your bottom back.

Your knees should be above your toes. Do not let your knees turn in or out during the movement.

Hold for 5 seconds. Repeat up to 10 times.



Exercise 7A

Stand. Hold onto a support with 1 hand.

Grasp your ankle from behind with the other hand. Pull your ankle towards your bottom. Make sure your hip is straight at the front and do not arch your back.

Hold for 10 to 30 seconds. Repeat 3 to 5 times.



Exercise 7B

Or put a towel around your ankle. Use the towel to pull your ankle towards your bottom. Make sure your hip is straight at the front and do not arch your back.

Hold 10 to 30 seconds. Repeat 3 to 5 times



Exercise 8

Place your leg along a couch, with your hands on your hips and your other foot resting on the ground.

Keeping your back straight lean forward and feel the stretch in the muscles at the back of your thigh.

Hold for 30 seconds. Repeat 3 to 5 times.



Exercise 9

Place heel on a step; pull your foot up and straighten your knee. Lean forward from your hips, keeping your back straight.

Feel the stretch in the muscles at the back of your thigh.

Hold for 30 seconds. Repeat 3 to 5 times.



Exercise 10

Stand in a walking position with the leg straight behind you and the other leg bent in front of you. Take support from a wall or chair.

Lean your body forwards until you feel the stretch in the calf of the back leg.

Hold for 30 seconds. Repeat 3 to 5 times.

Contact details

Physiotherapy Departments:

Glenfield Hospital: 0116 258 3595

Leicester General Hospital: 0116 258 4070

Leicester Royal Infirmary: 0116 258 5816

Further information

You can view NHS advice on osteoarthritis from their website: www.nhs.uk/conditions/osteoarthritis/

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