

Knee osteoarthritis

Information for patients

This leaflet will provide you with some simple information and advice on how to manage your knee osteoarthritis. If you have any queries or concerns please contact your GP.

What is osteoarthritis?

Osteoarthritis (OA) is a normal age related process that can occur in all the joints throughout our body, however it is very common in our knees.

Mechanism of injury

As we go through life the protective cartilage on the ends of your bones can start to wear, this can sometimes result in pain and swelling around the joint. Factors that can increase your risk of OA include joint injury, gout, rheumatoid arthritis, increased age, obesity and a family history of OA.

Symptoms

You may develop pain in and around your knee, in particular it may be uncomfortable around the knee joint line (the junction between your thigh bone and shin bone). Other symptoms you may experience include early morning stiffness that lasts less than 30 minutes, stiffness after sitting for a prolonged period of time, discomfort after long periods of activity. You may also find that the stiffness is eased with gentle movement. Activities that commonly aggravate symptoms include kneeling, squatting, running, using stairs. You may notice some grinding or grating sounds from your knee; this is called crepitus and is quite normal for this condition and does not mean that harm is being done when moving the knee.

Management

- Ice: a cold pack (ice pack or frozen peas wrapped in a damp towel) can provide short-term pain relief. Apply this to the sore area for up to 15 minutes, every three hours and up to four times a day, ensuring the ice is never in direct contact with the skin.
- Relative rest: reduce activities that are making your symptoms worse, for example, the length of time you spend on your feet.
- Painkillers: pain relief can help manage the discomfort in the short term. Normally painkillers bought from a pharmacist will help. If you have any questions please speak to a pharmacist or GP.
- Exercise: you should complete specific exercises that aim to increase the strength and stability of your knee – this will help in the healing process and help you return to activities. Please see below for suggestions of a graded exercise programme.

- Weight management: When you are overweight it can increase the load/pressure that is exerted on your joints. Therefore by reducing your weight you may find some relief in your symptoms.

Follow-up

You do not routinely require physiotherapy for this type of injury, most find they improve with time and simple exercises. If your knee pain does not improve after 6-12 weeks then you may benefit from physiotherapy, we recommend you contact your GP to refer you to your local physiotherapy department.

Healing

This type a long-term condition so it is important you receive the correct support. If you have trialled physiotherapy and your symptoms are not improving then you may benefit from an orthopaedic review.

What to expect

Weeks since injury	Rehabilitation plan
0 to 2 weeks	<ul style="list-style-type: none"> ✓ Use ice and elevation to help swelling ✓ Begin the 'stage one exercises' at the end of this letter. ✓ Follow the management advice as per above
2 to 6 weeks	<ul style="list-style-type: none"> ✓ Once your pain has begun to settle, start the exercises below labelled 'stage two exercises'.
6 to 12 weeks	<ul style="list-style-type: none"> ✓ Once you are able to complete 'stage two exercises' then progress onto the next stage. You may be able to progress onto these earlier than 6 weeks if your pain has reduced, sometimes it can take longer than 6 weeks to progress. ✗ If, after 6 weeks, you are struggling with any of the following please contact your GP for an assessment and possible referral to your local physiotherapy department.

Initial advice

Ice, rest and elevation

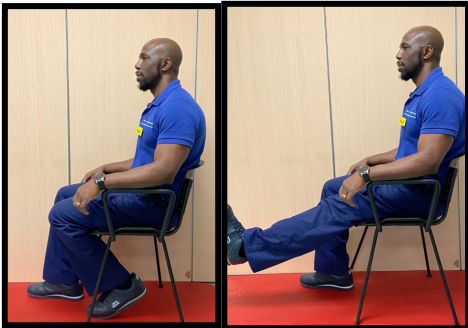
Try to rest the knee for the first 24 to 72 hours (1 to 3 days) to allow the early stage of healing to begin. Raise your ankle above the level of your hips to reduce swelling. You can use pillows or a stool to keep your foot up. Ice your knee as per the advice above.

Early movement and exercise

Early weight bearing (putting weight through your injured limb) helps increase the speed of healing. Try to walk as normally as possible as this will help with your recovery.

Stage one (3 to 4 times a day)

Seated knee flexion and extension:



Position yourself sitting on a chair.

Slowly straighten your knee so that it is fully extended and you can feel the muscles on the front of your thigh contracting.

Slowly then bend your knee so that your foot moves backwards under your chair, you will then feel the muscles on the back of your thigh contracting.

Repeat the whole movement 12-16 times.

Straight leg raise:



Sit or lie on your back with your leg straight.

Bend the knee of your unaffected leg. Pull your toes of your affected leg towards you and keep your knee straight. Slowly lift your foot 10cm keeping your knee straight.

To make this harder you can hold your leg in the position for 5 seconds.

Repeat this 8 to 12 times, each leg.

Balance:



Level 1: Stand holding onto a chair or firm surface. Practice standing on your previously injured ankle for up to 30 seconds. Once you have achieved this move to level 2.

Level 2: Once standing on one leg attempt to release your grip on the chair/surface and hold for up to 30 seconds. Once you have achieved this move to level 3.

Level 3: Once standing freely on one leg without support you can attempt to close your eyes for up to 30 seconds

Stage two exercises

Once you can easily complete the above exercises without discomfort then move onto the exercises below.

Sit to stand:



Position yourself sitting in a chair with your arms across your chest and your feet flat on the floor, shoulder width apart. Slowly lean forwards and stand up without using your arms. Once in a standing position slowly sit back down to the chair in a controlled manner.

Repeat this 8 to 12 times, three times a day.

Step up:



Stand facing a step.

Step up onto the step with your affected limb. Lift your other foot off the floor, then place it next to the other foot. Slowly lower your unaffected foot towards the floor then bring your affected leg/foot down. Repeat for the opposite limb.

Repeat this 8 to 12 times, three times a day.

Developing dynamic ankle control required for sports:



Level 1: Walk on the spot on a soft surface e.g. a cushion under a mat. Look straight ahead while staying upright.

Level 2: Attempt to stand on one leg on the uneven surface holding it for up to 30 seconds using your good leg first.

Level 3: Attempt level 2 exercises but closing your eyes. Again try the good one first to see how hard it is.

Developing core control required for sports:

Level 1: Stand with one foot in front of the other, with your hands together. Swing your arms in a figure eight in both directions for 1-2 mins or as able.

Level 2: As level 1, but bring your feet so they are touching toe to heel.

Level 3: As level 1/2 but with your eyes closed.

Stage three exercises

Once you can easily complete the above exercises without discomfort then move onto the exercises below.

Step down:



Start by standing on a step, facing down the steps.

Keep one foot on the step, letting the other hang loosely off the step. Slowly start to lower your hanging foot towards the floor by bending the knee of the standing leg (keeping your hips level at all times, ensuring that the knee stays above your ankle and is not moving toward the other knee), then return to the starting position. Repeat for the opposite limb.

Repeat this 8 to 12 times, three times a day.

Single leg sit to stand:



Position yourself sitting in a chair with your arms across your chest and your affect limbs foot on the floor, with your unaffected leg elevated off the ground.

Without the use of your arms (and without moving your legs) lean your body forward until your nose is above your knee, then stand up. Slowly lower yourself back into the chair again without the use of your hands.

Sharing your information

We have teamed up with Guy's and St Thomas' Hospitals in a partnership known as King's Health Partners Academic Health Sciences Centre. We are working together to give our patients the best possible care, so you might find we invite you for appointments at Guy's or St Thomas'. To make sure everyone you meet always has the most up-to-date information about your health, we may share information about you between the hospitals.

Care provided by students

We provide clinical training where our students get practical experience by treating patients. Please tell your doctor or nurse if you do not want students to be involved in your care. Your treatment will not be affected by your decision.

PALS

The Patient Advice and Liaison Service (PALS) is a service that offers support, information and assistance to patients, relatives and visitors. They can also provide help and advice if you have a concern or complaint that staff have not been able to resolve for you. The PALS office is located on the ground floor of the Hambleton Wing, near the main entrance on Bessemer Road - staff will be happy to direct you.

PALS at King's College Hospital, Denmark Hill, London SE5 9RS

Tel: 020 3299 3601

Email: kch-tr.palsdh@nhs.net

You can also contact us by using our online form at www.kch.nhs.uk/contact/pals

If you would like the information in this leaflet in a different language or format, please contact PALS on 020 3299 1844.