

Integrated Musculoskeletal Service
Physiotherapy Department

Knee Pain

(not caused by accident or injury)

Information and Exercise Leaflet for Patient's and Carers

Knee pain can occur without an accident or injury. Pain can be the result of simple functional activities like getting up from a chair or kneeling, however sometimes there is no clear reason for your knee to hurt.

Why does my knee hurt then?

All joints and soft tissues have a certain amount of activity that they can tolerate. This level can go up and down depending on how much activity you do. For example, following a period of rest or illness your activity tolerance can drop quite quickly. If you then do an activity that takes you above this level you can present with a painful reaction.

Activities that can cause a painful reaction are: kneeling, squatting, repetitive stairs or ladder climbing, and a general increase in your normal daily activities. Often you may not get a painful reaction at the time of activity, it can come on over the next 24 hours.

Should I be resting or moving?

For the first 24 to 48 hours after a painful reaction

- Try to rest your knee but avoid long spells of not moving at all.
- Try to move your knee gently for 10 to 20 seconds every hour when you are awake.
- If swollen or warm then use a wet towel over your knee followed by an ice bag / frozen peas for 10-15 minutes every 2 hours.

After 48 hours

- You should try to use your knee more.
- Do whatever you normally would and stay at or return to work. This is important and is the best way to get better.
- Avoid sports or heavy lifting until you have less discomfort and good movement.
- Gentle exercise really helps your knee and can relieve pain.

Activity Diary and Modifications

It is sometimes useful to make a note of the daily activities that can potential aggravate your knee. Below are some of the main knee aggravators and some modifications you can make to help reduce the painful reaction.

Knee Aggravator	Modification
Sleeping with knees touching	<ul style="list-style-type: none"> Use a pillow between your legs
Prolonged sitting with knees bent	<ul style="list-style-type: none"> Try to get up every 30 mins
Stairs	<ul style="list-style-type: none"> When going upstairs reduce the strain on your knee by leading with your good leg. When going downstairs reduce the strain on your knee by leading with your problem leg. If there is a handrail, use it.
Kneeling	<ul style="list-style-type: none"> Use knee pads or alternate kneeling through one knee at a time with the other leg in front of you.
Walking – if painful and causing a limp	<ul style="list-style-type: none"> Try offloading your knee by using a stick for a short period.
Pivoting (twisting) through the knee	<ul style="list-style-type: none"> Keep nose and toes facing the same direction when turning.

How do I know if my activities are causing a painful reaction?

It is common to get a painful reaction if too much load is put through the knee. If this pain is more than 5/10 (with 10 being the worst pain imaginable) or pain lasts for more than 24 hours, check what you have been doing and ease back.

Once this has settled you can start to gradually introduce your activities and exercises again. If you have a mild aggravation (pain is less than 5/10) and this settles within 24 hours then keep going with your exercises and gradual return to full activities (see below).



Should I take painkillers?

Painkillers can help you keep moving. However, it is important to discuss this with your GP, especially if you are taking any other medication

Should I use ice or a heat pad?

If you have had an injury or a flare-up of an old problem in the last two days:

Wrap crushed ice in a damp towel and hold it for five to ten minutes against the part of your knee that hurts.

You can do this every two to three hours. Make sure you use a damp towel between the ice and the skin to avoid ice burn.

Alternatively, you could try sports sprays and gel packs, which do a similar job.

After two days, you may find that heat is more relaxing.

You could use a heat pad or a hot water bottle with an insulated cover on it. Make sure this is not too hot and not directly touching your skin.

You should apply this for 10 to 15 minutes, three to four times a day. You can also continue with ice to help reduce the pain and further swelling.

What about work?

You will recover faster and everybody will benefit if you can stay at or get back to work as early as possible. Do not worry if your knee still hurts, as you may only have to do light work at first. Try to stay active and remember to keep moving. Speak to your manager about any concerns you may have.

What about sports?

You should take time before you take part in any sports after a knee problem. If you take part in sports too soon you could be injured again. You should have no swelling and be able to move your knee properly. You should have full or close to full strength and be able to take your weight through your leg without limping. Remember to stretch and warm up fully before sports.

Have I got Osteoarthritis of the knee?

All normal joints and joint tissues are constantly undergoing some form of repair because of the load that is placed on them through our daily activities. Osteoarthritis (OA) is the natural wearing and repairing of our joints. Sometimes during the repair process extra bone is laid down along with increased fluid, this can cause swelling of the joint and pain.

What are the symptoms of osteoarthritis?

- In some cases no symptoms may occur. Quite a number of people can have X-ray changes that indicate some degree of OA but have no, or only very mild, symptoms.
- Pain, stiffness, and limitation in full movement of the joint are typical. The stiffness tends to be worse first thing in the morning but tends to loosen up after half an hour or so.
- Swelling and inflammation of an affected joint can sometimes occur.
- An affected joint tends to look a little larger than normal. This is due to overgrowth of the bone next to damaged cartilage.
- You may have poor mobility and problems walking if your knee is badly affected.

Do I need any tests?

Your doctor can often diagnose osteoarthritis based on your age, your typical symptoms and examination of your affected joints. Tests such as X-rays or blood tests are usually not needed. However, sometimes your doctor may suggest X-rays or other tests if they are uncertain about the diagnosis and want to exclude other problems.

What is the outlook for people with osteoarthritis?

The severity of symptoms can vary. In many people, OA is mild and does not make you any more disabled than expected for your age. However, in some people, the severity of OA and the disability it causes is out of proportion to your age.

What are the aims of physiotherapy?

The aims of physiotherapy are to increase joint mobility, improve muscle strength and try and relieve pain.

General measures to help treat osteoarthritis:

Exercise

If possible, exercise regularly. This helps to strengthen the muscles around affected joints, to keep you fit, and to maintain a good range of joint movement.

Weight control

If you are overweight, try to lose some weight as the extra burden placed on your knees can make symptoms worse. Even a modest weight loss can make quite a difference.

Walking aids

If you have OA of your hip or knee, when walking try using a walking stick. Hold it in the hand on the opposite side of the body to the affected joint. This takes some pressure of the affected joint and helps to ease symptoms in some cases.

Other therapies

- Some people find that they can also get some pain relief from using hot or cold packs. Try wrapping crushed ice in a damp towel and hold it for five to ten minutes against the part of your knee that hurts. You can do this every two to three hours. Make sure you use a damp towel between the ice and the skin to avoid ice burn.
- Alternatively you could use a heat pad or a hot water bottle with an insulated cover on it. Make sure this is not too hot and not directly touching your skin. You should apply this for 10 to 15 minutes, three to four times a day.
- Some people have found that transcutaneous electrical nerve stimulator (TENS) machines help to ease pain from OA. A TENS machine delivers small electrical pulses to the body via electrodes placed on the skin.
- Acupuncture may also help to ease symptoms in some cases.

Warning Signs

If you have severe pain which is getting worse over several weeks, if you are unwell with back or full leg pain, or under the age of 16 years, you should consult your doctor.

The following symptoms are very rare, but if you suddenly develop any of them, you should consult your doctor straightaway.

Significant swelling to the leg not just the knee

- Feeling generally unwell
- Signs of infection i.e. night sweats that are out of the ordinary, high temperature and feeling unwell.
- Constant night pain (unable to rest/sleep)
- Unexplained weight loss

If your symptoms fail to improve within 6 weeks with this regime you should contact your doctor for a physiotherapy referral.

If this is the case remember to bring a pair of shorts to change in to, this will help the physiotherapist diagnose your problem.

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Do not work into pain but it is OK for the muscle to feel tired

Notes : Do not work into pain but it is OK to feel the muscle feel tired

1 Knee end range extension



Sets: 4 Reps: 10-30

Lie on your back with a towel rolled under your ankle.
Push your knee down towards the bed so as to straighten it as much as possible.
Relax your knee and repeat.

2 Knee extension



Sets: 4 Reps: 10-30

Lie down on your back with a rolled towel under your thigh, just above the knee.
Push your thigh down into the towel and lift your heel up off the floor and as high as you can, without lifting the leg from the roller.
Lower your leg to the starting position and repeat.

3 Strengthening ASLR (12 inches)



Sets: 4 Reps: 10-30

Lie on your back with one knee bent and the affected leg completely straight.
Lift your leg off the bed about one foot high off the surface, keeping it straight.

Hold 10 seconds

Lower the leg to the starting position and repeat 10 times

4 Supine hips extension

Sets: 3 Reps: 10-30

Lie on your back knees bent



Squeeze buttocks and lift your bottom off the floor

Alm - 1 minute hold, 3 times

Then progress to single leg



5 Mini-squat holding a railing

Sets: 4 Reps: 5-15

Hold on to the railing and bend your knees slightly while pushing your hips backward to perform a mini-squat.



6 Isometric clamshell

Sets: 4 Reps: 20

Lie on your side with your knees bent and your head supported.

Activate the muscles on the side of your top hip-as if you wanted to lift the top knee off the bottom thigh.

There should be no visible movement, only a muscle contraction.

Hold the contraction for a few moments. Then relax.

