

Osteoarthritis (OA) of the Knee

Information and Exercise Leaflet for Patient's and Carers

What is osteoarthritis?

Arthritis means inflammation of the joints. Osteoarthritis (OA) is the most common form of arthritis in the UK. OA mainly affects the joint cartilage and the bone tissue next to the cartilage.

What causes osteoarthritis?

All normal joints and joint tissues are constantly undergoing some form of repair because of the wear and tear that is placed on them through our daily activities. However, in some people, it seems that this repair process becomes faulty in some way (perhaps because of severe wear and tear to the joints or a problem with the repair process) and OA develops.

In joints with OA, the joint cartilage becomes damaged and worn. The bone tissue next to the cartilage can also be affected and bony growths can develop around the joint edges. These growths are called osteophytes and may be seen on X-rays. The joints and the surrounding tissues can also become inflamed. This inflammation is called synovitis.

Factors that may play a role in the development of OA include:

- **Age:** OA becomes more common with increasing age. By the age of 65, at least half of people will have some OA in some joint(s).
- **Genetics:** There may be some inherited tendency for OA to develop in some people.
- **Obesity:** Knee OA is more likely to develop, or be more severe, in obese people. This is because there is an increased load on the joints and a potential for more joint damage.
- **Your sex:** Women are more likely to develop OA than men.
- **Previous joint injury, damage or deformity:** This may include previous joint infection, a previous fracture (break in the bone) around a joint, or a previous ligament injury that caused a joint to become unstable.

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 aim of physiotherapy is 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 hip 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 do 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.

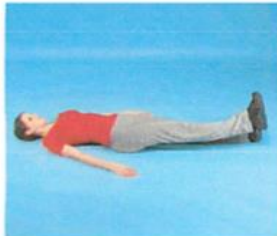


Personal Exercise Program Knee Exercises week 1-2



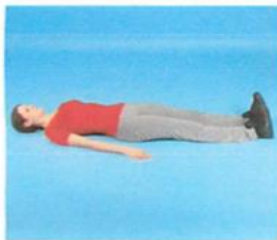
Lying on your back.
Bend and straighten your leg.
Repeat 10-20 times.

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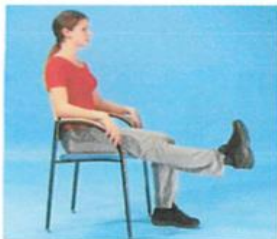
Lying on your back.
Tighten your thigh muscle and straighten your knee. Lift your leg 20 cm off the bed.
Hold 5 secs.
Repeat 10-20 times.

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Lying on your back with legs straight.
Bend your ankles and push your knees down firmly against the bed. Hold 5 secs. -
relax.
Repeat 10-20 times.

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Sit on a chair.
Pull your toes up, tighten your thigh muscle and straighten your knee. Hold approx. 5
secs. and slowly relax your leg.
Repeat 10-20 times.

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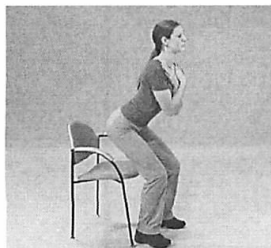
Knee Exercises week 1-2

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Personal Exercise Program

Provided for : OA knee Ex's to commence when Wk1 Ex's are too easy/painfree
 Provided by : OA knee Ex's Physiotherapy Date : 10/11/2014

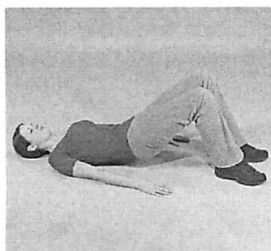


Sitting with your arms crossed.

Stand up and then sit down slowly on a chair. (This can be made easier and more difficult by changing the height of the chair)

Repeat/Aim 10-20 times.

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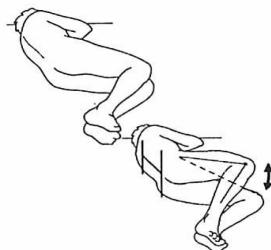


Lying on your back with knees bent.

Squeeze your buttocks together and lift your bottom off the floor. Return to starting position.

Repeat/Aim 10-20 times.

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START POSITION: Lie on the side with the pelvis square, the hips flexed to approximately 45 degrees and the knees bent. Hollow the stomach to straighten the back to a neutral position.

ACTION: Leaving the heels together slowly lift the top knee by turning the hip out without letting the back or pelvis twist. ONLY turn out as far as a stable back and pelvis allow. Hold this position with minimal effort.

Repeat/Aim 20-30 times. L R (adpt Sahrmann PhD, PT)

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