

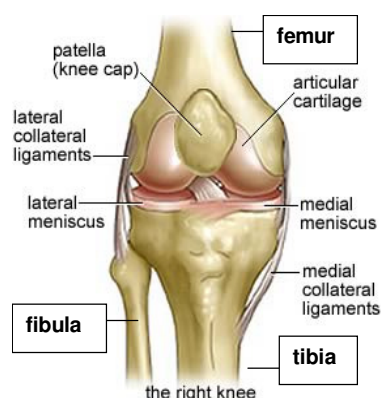
Information for Patients with Osteoarthritis Affecting the Knee

Information for Patients with Osteoarthritis

This booklet is aimed to act as a guide to patients who have osteoarthritis.

Osteoarthritis can affect any joint in the body but is more common in joints in the lower limb, for example, hip and knee, as these are the main weight bearing joints.

Anatomy



A joint is formed where two bones meet. The ends of the bones, which form the joint, are covered in articular cartilage. This provides a smooth, slippery and low friction surface that also cushions the joint. Healthy cartilage absorbs stress and allows the bones to glide across each other smoothly.

Osteoarthritis

The word arthritis means joint inflammation. Osteoarthritis also known as 'degeneration' or 'wear and tear' arthritis is the most common type of arthritis and develops over a long period of time.

Osteoarthritis affects the articular cartilage and it can start to wear away. Pieces of cartilage may become loose and float inside the joint, causing further irritation.



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Over a long period of time the cartilage can become completely 'worn away' and the bones begin to rub together, which is very painful.

Risk Factors

No-one knows for sure what causes osteoarthritis but some risk factors include:

- Previous knee injury, for example, meniscal cartilage tear, ligament injury.
- Family history of osteoarthritis.
- Being overweight.
- Increasing age.
- Alignment; for example, 'bow legs' or 'knocked knees'.

Symptoms

Patients usually complain of some of the following symptoms:

- Pain – on weight bearing activities, and pain that disturbs the sleep.
- Stiffness – especially in the morning and after prolonged rest. Limited range of movement of affected joint.
- Reduced function – difficulty with everyday activities, for example, reduced walking distance, difficulty with stairs.

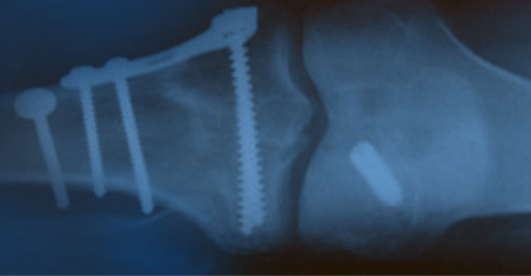
Swelling – especially after activity.

Treatment

There is no cure for osteoarthritis and it is not possible to reverse the changes that have occurred. Treatment aims to reduce the symptoms and help you to adapt your lifestyle with the condition and control the symptoms.

Alternatives to surgery include:

- Regular pain medication; painkillers, anti-inflammatories and topical gels or cream.
- Using walking aids to reduce stress on the joint.



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- Weight loss – being overweight places more stress on your joints and other forms of treatment may not have any lasting benefit until sufficient weight is lost.
- Shoe inserts that help to cushion the joints or shoes that have thick soft soles that act as a shock absorber to feet, knees, hip and back.
- Exercises to maintain joint movement, muscle strength and help with pain relief.
- Modification of activities to reduce pain, for example, using chair arms to get up from chair and using banister on stairs to reduce load on knees.
- Acupuncture for pain relief.
- Herbal remedies, for example, Glucosamine Sulphate 1500mg per day.

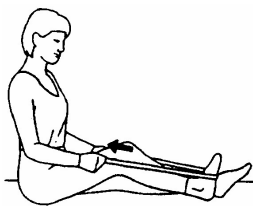
Heat – this may be effective in relieving pain from the joint, but should not be applied if the joint is warm or grossly swollen. Heat can be applied either by a hot bath, hot water bottle or heat lamp.

Exercise

The following are exercises designed to maintain and improve your knee range of movement, muscle strength and relieve pain. They should be performed at least once a day.

Muscles weaken around the knee due to the pain and reduction in function that osteoarthritis can cause.

Non-weight bearing exercises can also be tried as these put minimal load on the knee joint, for example, swimming and cycling.



Sitting on the bed place a sock on your foot. Place a slippery board/tray under your foot and a band around it. Bend your knee as far as possible. Gently pull the band to bend a little more.

Hold 5 seconds. Repeat 10 times.



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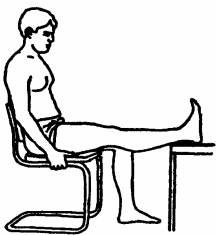


Sit on a chair with your feet on the floor. Bend your knee as much as possible.

Repeat 10 times.

You can cross ankles and use opposite foot to pull the operated leg further under.

Sitting on a chair or bed with the leg to be



exercised supported as shown. Use a rolled towel under the heel if sitting on a bed. Let your knee straighten in this position.

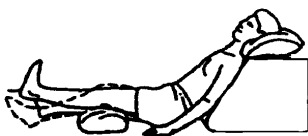
Hold 5 seconds. Repeat 10 times.



Lying on your back or sitting with legs straight. Pull your toes up towards you and push your knee down firmly against the bed. Hold 5 seconds. Repeat 10 times.



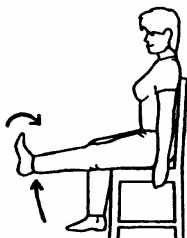
In lying/sitting with leg straight. Lift your leg 2-3 inches only keeping knee straight. Hold 5 seconds. Repeat 10 times.



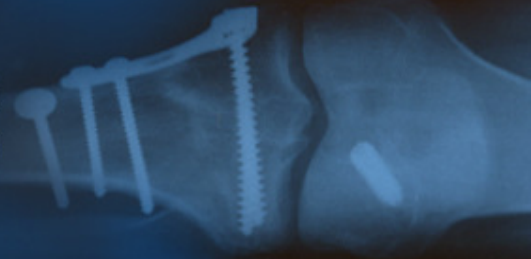
Sitting with back supported. Place a rolled towel under your knee. Pull your toes up towards you, straighten your knee and push it down against the towel.

You can add a small weight over the ankle to make the muscle stronger.

Hold 5 seconds. Repeat 10 times.



Sit on a chair. Pull your toes towards you, tighten your thigh muscle and straighten your knee. You can add a small weight over the ankle to make the muscle



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stronger.

Hold 5 seconds. Repeat 10 times.

Stand with support. Push up on your toes.
Repeat 10 times.



Sitting on a firm backed chair with your arms folded and a towel between your legs Squeeze your buttocks together and squeeze the towel.

Hold the squeeze for 5 seconds and relax slowly.
Repeat 10 times.

You may experience more discomfort on commencing these exercises, however, this is perfectly normal and does not mean you should stop. If your symptoms remain worse for more than 2 hours after completing the exercises then you should decrease the number of repetitions of each exercise accordingly. You may find that little and often is easier than one or two longer sessions.

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