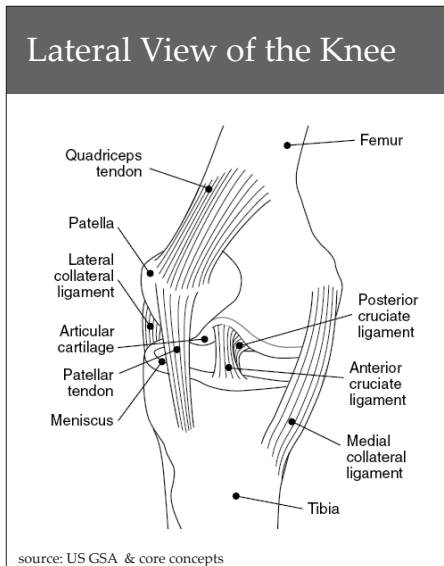


Osteoarthritis Knee

Management and Treatment

Osteoarthritis (OA) is a condition involving the breakdown of articular cartilage in your joints. Articular cartilage is rubbery tissue that covers the edges of bones to allow joints to move easily. As the disease develops, the articular cartilage becomes much thinner, or it can wear away completely. This can lead to thickening of the edges of the bones, and the bones may develop bony "spurs".

The combination of these factors causes stiffness, pain and swelling. OA can occur in any of your joints, however it is most commonly found in the knee.



How do you get OA in the knee?

There are several factors that can contribute to the development of OA in the knee. The common causes include:

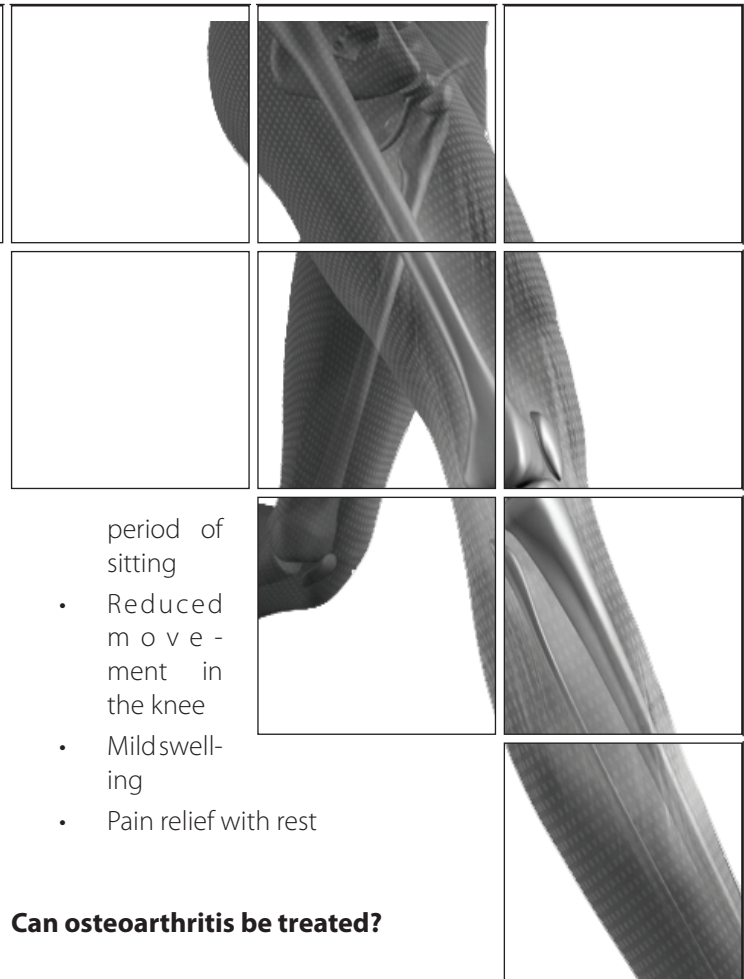
- A previous knee injury – for example a fracture; ligament or meniscal injury
- Repetitive strain on the knee – excessive weight-bearing activities over long periods of time can cause gradual wear and tear
- Being overweight or obese – the extra weight increases the forces going through the knee making your knee joint work harder than it should
- Genetics (hereditary) – research has shown that OA often occurs in people in the same family

What does the pain feel like?

- Osteoarthritis of the knee typically develops gradually over a number of years.

Common symptoms associated with OA are:

- Diffuse pain in the knee particularly with walking and climbing stairs
- Stiffness, especially first thing in the morning or after a



- period of sitting
- Reduced movement in the knee
- Mildswelling
- Pain relief with rest

Can osteoarthritis be treated?

There is no cure for OA of the knee. However, there are ways to manage the pain and help reduce the condition from getting worse.

Things that you can do include:

- Taking anti-inflammatory medications – speak to your doctor or pharmacist for more information
- Avoiding activities that make your pain worse
- Applying ice – this is helpful after activities that aggravate the pain. Wrap the ice in a damp towel and apply for no longer than 15minutes
- Keep the knee moving – prolonged periods of inactivity will make the knee more stiff and painful
- Performing exercises to strengthen your knee – research shows that low-impact exercises offer pain-relief in OA knees. See below for recommended exercises
- Swimming – a warm pool not only offers comfort to the knee; the buoyancy of the water also reduces stress through the knee
- Losing weight if you are overweight – this will reduce forces through your knees, thereby reducing pain
- Wearing a knee brace – a brace offers your knee more support
- Taking glucosamine – some people find this beneficial
- If your pain does not improve within 2 weeks, see your doctor or a physiotherapist for further advice.

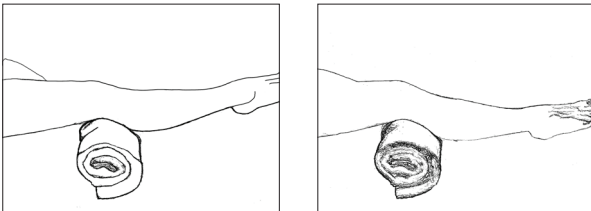
Moderate to severe cases of osteoarthritis in the knee may need other treatments including:

- Physiotherapy – a physiotherapist will show you exercises specific to your injury and use hands-on techniques to help relieve pain
- Steroid injection – this may offer pain relief to moderate to severe OA knees. A specialist will help you decide whether this option will be suited to you
- Surgery – this option is only suited to people with severe OA. There are different types of procedures including a knee joint replacement.

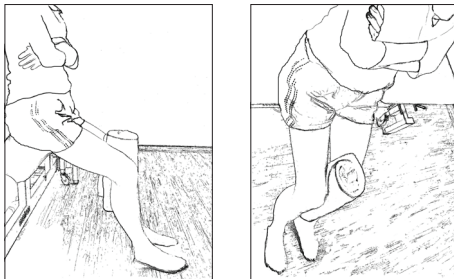
Recommended knee exercises

Daily walking, swimming and cycling on an exercise bike are beneficial for the knee. You can also perform strengthening exercises to make your knees stronger and reduce progression of OA in the knees.

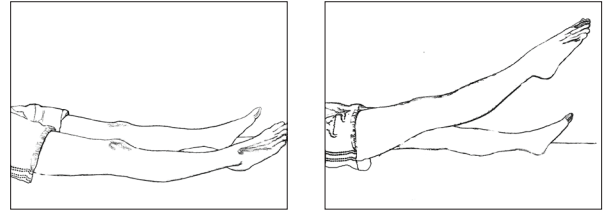
- Quadriceps tense
 - » In long-sitting, place a rolled towel under the affected knee
 - » Tense your thigh muscles, as though you are pushing the back of your knee into the towel
 - » Hold for 5 seconds
 - » Repeat 30 times



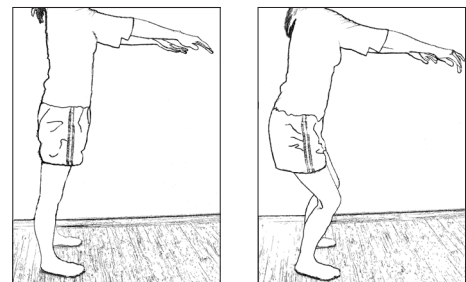
- Ball squeeze
 - » Sit on a chair with a ball or towel between your thighs
 - » Push your knees together and hold for 5 seconds
 - » Repeat 10 times and do 3 sets



- Straight leg raise
 - » Lie on your back and lean on your elbows
 - » Keeping the knee straight, lift the affected leg about 0.5m off the floor and hold for 5 seconds
 - » Lower your leg to the ground
 - » Repeat 10 times



- Mini-squats
 - » Stand with your feet shoulder-width apart
 - » Hold your arms in front for balance
 - » Slowly bend your knees and lower your buttocks towards the floor, making sure your back remains straight and knees do not move forward past your toes
 - » The squat should be at about 45 degrees
 - » Hold the position for 5 seconds, then return to starting position
 - » Repeat 10 times



This information should only be used as a guide. For further reading, visit <http://mcr.coreconcepts.com.sg>.

For more information, please contact your Family Doctor