

## Knee Osteoarthritis

### What is Knee Osteoarthritis (OA)?

OA is a condition that affects the joints, causing pain and stiffness. The knee is a 'hinge joint' which is covered in a layer of cartilage. When the knee develops OA, some of the cartilage roughens and becomes thin and the joint doesn't move as smoothly as it should. In severe cases the cartilage can become so thin that it no longer covers the bone resulting in bone rubbing against each other.



### What causes Knee OA?

OA results from a combination of factors

- Age: more than 40 years
- Gender: twice as common in women
- Previous joint injury: normal activity and exercise does not cause OA, but previous injuries/surgery can increase the risk
- Obesity: Being overweight increases the strain on your joints
- Genetic factors: if a close family member has OA, you are more likely to develop the condition

### Signs & Symptoms

- Giving way
- Locking
- Difficulty climbing stairs
- Knees can become bowed
- Muscle wasting
- Pain
- Stiffness
- Crepitus (grating/grinding)
- Hard or soft swellings
- Reduced movement

### How is it diagnosed?

- Diagnosis is usually based on signs and symptoms identified during a physical examination
- X-rays can be useful but are not always required
- There is no blood test for OA but can be used to rule out other conditions

### How can I manage my pain?

*Stay Active:* your symptoms are more likely to get worse if you sit and do nothing; however with regular gentle exercise you can strengthen the muscles and protect the joint. This can be in the form of specific exercises for your joint (see below) or more generalised activity i.e. swimming/walking.

*Painkillers* are an important part of effectively managing your symptoms. Talk to your GP or pharmacist for further information and advice.

*Warmth* can help reduce symptoms, use for 10 minutes twice daily.



*Weight management:* Losing even a small amount of weight can make a big difference to the strain on your joints.

*Aids:* Walking aids can help to reduce some of the load through your joint. Knee supports and braces can be used to reduce instability in severe cases.

*Pacing your activities:* try to find the right balance between activity and rest. Too much rest is likely to increase stiffness and can result in muscle weakness; on the other hand, overdoing it when you're having a good day is likely to lead to more pain and fatigue the next day. Try taking short regular breaks to sit and rest your joints

*Surgery:* In severe cases, knee replacement surgery may be recommended.

**Exercises:**

These exercises should be done 2-3 times daily up to 10 times each. They may make your muscles ache initially. Stop if the exercises severely aggravate your symptoms.



Sit up straight on a sturdy chair, so that your feet are supported on the floor. Slide your foot backwards on the floor and bend your knee as much as possible. Hold for 10 seconds. Return to the starting position.

Sit in a chair of comfortable height. Fold your arms across your chest. Stand up slowly, and then sit down again with control.



Lie on your back with one leg bent and the other leg straight. Place a rolled up towel under the straight knee. Straighten the knee using your front thigh muscles and lift the foot off the floor. Keep the back of your knee against the towel. Hold for 5 seconds and then relax.

Lie on your back with your knees bent and feet hip width apart. Clench your bottom and lift your hips up. Hold for 3 seconds and slowly return to the start position

