

PATIENT INFORMATION LEAFLET

Knee Osteoarthritis



Knee Osteoarthritis

The end of your thigh bone (femur) and the top of your shin bone (tibia), along with the under surface of your kneecap (patella) form your knee joint. The surfaces of these bones are covered in a smooth, tough, rubbery cartilage (articular cartilage) that act as shock-absorbers and lubricators during knee movements. The wearing of this articular cartilage is what constitutes osteoarthritis. As osteoarthritis worsens, the cartilage layer may become completely worn such that your underlying bones become exposed and rub against each other. In response to this, the edges of the surrounding bones may develop bony spurs called osteophytes (Figure 1). All this in turn can lead to damage to your meniscus. Articular cartilage is different to the other cartilage within your knee known as your meniscus.

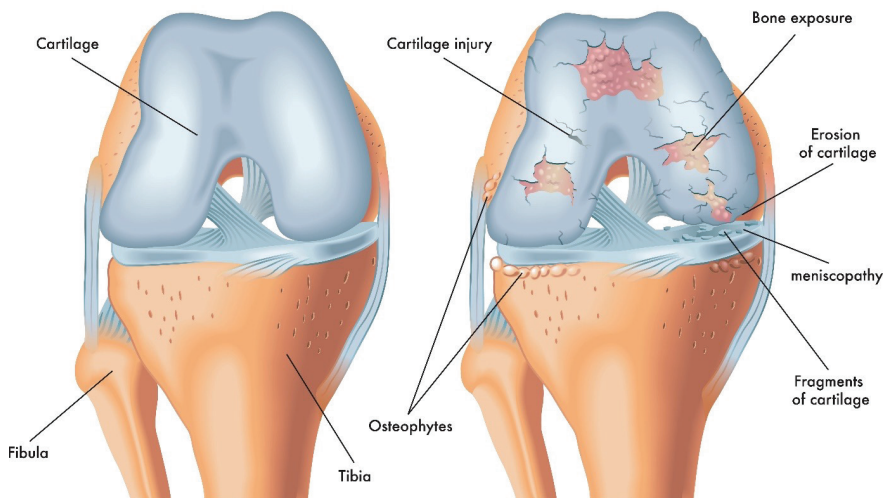


Figure 1

In a normal knee joint, the articular cartilage is smooth (left) but in osteoarthritis, this cartilage layer is worn away such that it is no longer a smooth surface and when severe, the underlying bone is exposed (right).

Causes

This is a condition that is very commonly seen in the United Kingdom and tends to affect females more than males. Contributing factors include:

- **Age**

Osteoarthritis becomes more common with increasing age.

- **Genetics**

You may have a strong family history of osteoarthritis and this may represent an inherited component to your osteoarthritis.

- **Weight**

Being over-weight increases the stresses placed across the articular cartilage in your knee joint. This increases the risks of you developing osteoarthritis.

- **Previous injuries**

Your articular cartilage can be affected by previous cartilage injuries, fractures (breaks in your bones affecting your knee joint or affecting the alignment of your leg), ligament injuries or infections affecting your knee joint.

Symptoms

Osteoarthritis may not lead to any symptoms and not uncommonly, it can be detected after you have an x-ray of your knee for other reasons. However, osteoarthritis may lead to the following:

- **Pain** – this tends to be worse with movements of your knee and with you are putting weight through your knee. As the disease progresses, the pain may also affect you at rest and at night.
- **Swelling** – this occurs as a combination of inflammation in the tissues and additional lubricating fluid produced by the tissues in your knee joint. However, this can also be due to formation of bony spurs (osteophytes).
- **Stiffness** – this is most often noticed in the mornings. You may notice difficulties with activities that require you to bend your knee fully e.g. squatting, kneeling, or you may find it increasing difficult to fully straighten your knee.
- **Mechanical symptoms** – this may be caused by injured cartilage or bone getting caught when you move your knee. This may range from a painless grinding sensation, to clicking, or popping that may be painful. This, in turn, may lead to your knee feeling unstable or giving way.

Diagnosis

The diagnosis of this condition is often made following a clinical assessment. An x-ray of your knee can often confirm the clinical findings.

Treatment

Specific treatment will depend on a number of factors including your age, your overall health and your views on the treatment options. The pain from osteoarthritis may settle in time such that you may find that you have mild, intermittent or even no symptoms at all.

▣ Rest and activity modification

Stop aggravating activity and consider alternative forms of exercises that are lower impact for your knee e.g. swimming, cycling. Consider increasing intensity of activity on a more graduated basis and carrying out warm-up stretches.

▣ Ice Packs

Apply several times daily for a period of 15 minutes each time if swelling is an issue.

▣ Compression

Consider an elastic bandage to provide some compression for the swelling.

▣ Anti-inflammatory medication

If oral preparations do not help, consider topical formulations to rub onto the painful area. Anti-inflammatories may have adverse side-effects if you have certain medical conditions or take certain medications so please consult with your GP prior to commencing.

▣ Weight loss

(If appropriate) to minimise stress on your articular cartilage and the risks associated with any future surgical treatment.

▣ Physiotherapy

The aims of physiotherapy are to maintain your knee joint movements, improve muscle tone and strength. For detailed description, please visit [American Association of Hip and Knee Surgeons \(AAHKS\) Home Exercise Programme](#). These exercises are described for those preparing for surgery but are the same exercises that would be recommended if you are trying to manage your osteoarthritis without surgery.

▣ Cortico-steroid injections

This involves an injection of a powerful anti-inflammatory medication into your knee joint.

- **Knee replacement surgery**

If your symptoms do not settle despite the above measures, you may wish to consider the option of surgery. For further information, please refer to [Mr Kosuge's Patient Information Booklet – Knee Replacement](#).

Outcome

Whilst osteoarthritis tends to worsen with age and time, your symptoms will not necessarily follow in this manner. Many patients avoid surgery by successfully control their symptoms with the measures outlined above.



CONSULTANT HIP & KNEE SURGEON
BMedSci FRCS (Trauma & Orthopaedics)

📍 RIVERS HOSPITAL
Private
High Wych Road
Sawbridgeworth
CM21 0HH

☎ 01279 602718

📍 THE PRINCESS ALEXANDRA HOSPITAL
NHS
Hamstel Road
Harlow
CM20 1QX

☎ 01279 827060

To arrange a private consultation with Mr Kosuge:
[Request an appointment \(online\)](#)

For further information, please visit:
🌐 www.denniskosuge.co.uk

Disclaimer Mr Kosuge has tried very hard to keep the information in this leaflet accurate and up-to-date, but he cannot guarantee this. This information is provided as an education resource and is not intended to serve as medical advice. For full details, please visit: www.denniskosuge.co.uk/disclaimer. If you are seeking orthopaedic advice, please feel free to arrange a consultation with Mr Kosuge.

© **All rights reserved.** No part of this leaflet may be reproduced or distributed in any form without prior written permission from the author, with the exception of non-commercial uses permitted by copyright law.