

Knee Osteoarthritis



What is Knee osteoarthritis?

4.1million people in England have osteoarthritis (OA) of the Knee. 18% of the population aged over 45 years old has the condition.

Arthritis Research UK suggests that only 18% of people with arthritis have a care plan to help them manage their symptoms. Sub-optimal management of osteoarthritis permits people to suffer symptoms unnecessarily.

Not everyone who has arthritis will suffer with symptoms, but those that do can experience pain, stiffness, reduced mobility and function. The experience of OA is often unique to each individual.

Some people may just have pain, whereas others may simply have stiff joints. Typically, symptomatic people with knee OA will have a combination of symptoms. Stiff knees often hinder daily functional tasks like walking, getting in and out of the bath or car, and putting on shoes.

What is happening in Knee osteoarthritis?

The first thing people usually think of when they think of arthritis is 'wear and tear'. These two simple words paint a picture of a process of gradual decline of an affected joint. Recent research into the arthritis process shows that actually this view of arthritis is not correct!

Arthritis Research UK proposes that instead we should think of arthritis as 'tear, flare and repair'.

Your knee joint is where your thigh bone (femur) meets your shin bone (tibia). This is the largest joint of the body is strong enough to hold our entire body weight. The joint is capable of taking significant forces under load when twisting and turning during day to day activities. At the end of each bone we have a type of cartilage known as hyaline cartilage.

The 'tear' component of arthritis refers to small deficits that occur in this special lining exposing the underlying bone. People often think that age is the biggest factor in development of these deficits however this is incorrect! The problem is much more multifactorial than that.

Development of these tears can relate to:

1. Biomechanics- How we use our Knee joints can be a factor in developing osteoarthritis. Heavier manual occupations have been linked to a higher incidence of knee osteoarthritis.
2. Previous injury or trauma- a previous problem with the knee joint such as a ligament tear or meniscal injury can predispose to developing osteoarthritis.
3. Genetics- it is thought that there are genetic factors that predispose some people to developing osteoarthritis.
4. Obesity- Having a higher than normal body mass index (BMI) is associated with osteoarthritis in the knee. This is thought to be due to the 'switching on' of inflammation by a group of chemical messengers called adipokines. These chemicals are secreted by fat tissue (which we tend to have more of in our joint soft tissues if we are overweight).
5. Smoking- smoking is linked to poor joint health.

The flare component refers to the inflammation that occurs within the joint when it is overwhelmed by a combination of the above factors.

The repair refers to the fact that the joints have an innate capacity to self-repair and try and do this following a flare episode.

What can I do about the problem?

Osteoarthritis is a long term condition- it usually develops and evolves very slowly (there are some more aggressive types that tend to affect younger people where the osteoarthritis develops quickly, but these are the exceptions not the rule).

Just as with other long term conditions like asthma or diabetes there are steps that can be taken to manage existing symptoms, **and** lifestyle changes that can be made which will generally improve symptoms.

From time to time people with osteoarthritis can experience flare up of their symptoms and may require additional help or treatment at these times to settle things back down.

Managing existing symptoms

The main ways of managing existing symptoms are looking at medication usage, maintenance exercises, and activity pacing techniques.

The aim of medication in osteoarthritis is to minimise your experience of pain symptoms. For some people dipping in and out of pain relief as required is sufficient to do this, for others a more formal regime of taking medication regularly is required to achieve this aim. National guidance for the use of medication in osteoarthritis suggests that people should try and use paracetamol or a NSAID in the first instance. Because both sets of drugs are unsuitable for some people you should speak to your GP about which approach is right for you.

Maintenance exercises are designed to keep your knee strong and moving well, the following exercises are likely to be useful.

Pacing involves breaking bigger activities down into smaller chunks to achieve your goal. For example if you know that 2 hours gardening will really aggravate your pain, try breaking the activity up into 4 shorter 30 minute sessions. We offer more detailed pacing advice on our website, and we also teach these techniques as part of our osteoarthritis management programme. Your GP can refer you to this at your request.

Improving existing symptoms

Employing the above management strategies for your existing symptoms should have the net effect of improving your existing symptoms.

Symptoms may also be improved by thinking about lifestyle factors. The key areas where changing lifestyle can be beneficial to joint health are:

Stopping smoking, losing weight, and exercising regularly.

Exercising regularly has been shown to have a strong effect on peoples self-reported ability to function with arthritis.

If you are overweight, using a calorie controlled diet to try and reduce this has also been shown to reduce arthritis symptoms.

Smoking cessation improves not only joint health but will have a positive impact on almost every system in the body.

Managing flare ups

If you experience a flare of symptoms this is usually linked to an episode of inflammation within the joint. It is therefore usual for a flare up to last between 6 and 12 weeks. If you are struggling with a flare it is worth considering your medication based option for managing this. Your GP may prescribe you a short course of medication to help with the flare up. You should also make sure your following all our advice above with regards symptom management.