

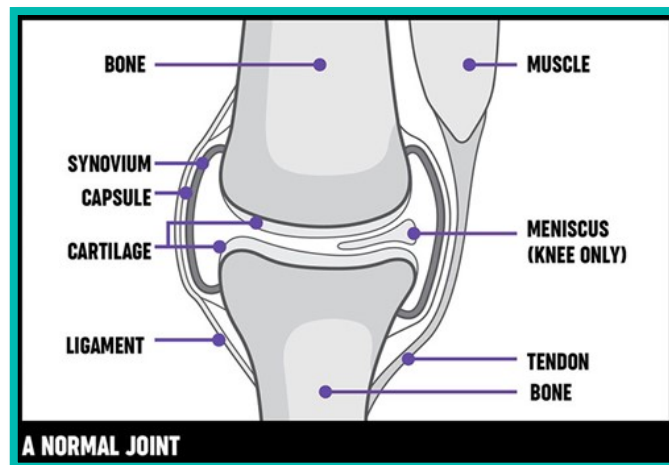
A Knee Information & Exercise

Osteoarthritis of the Knee

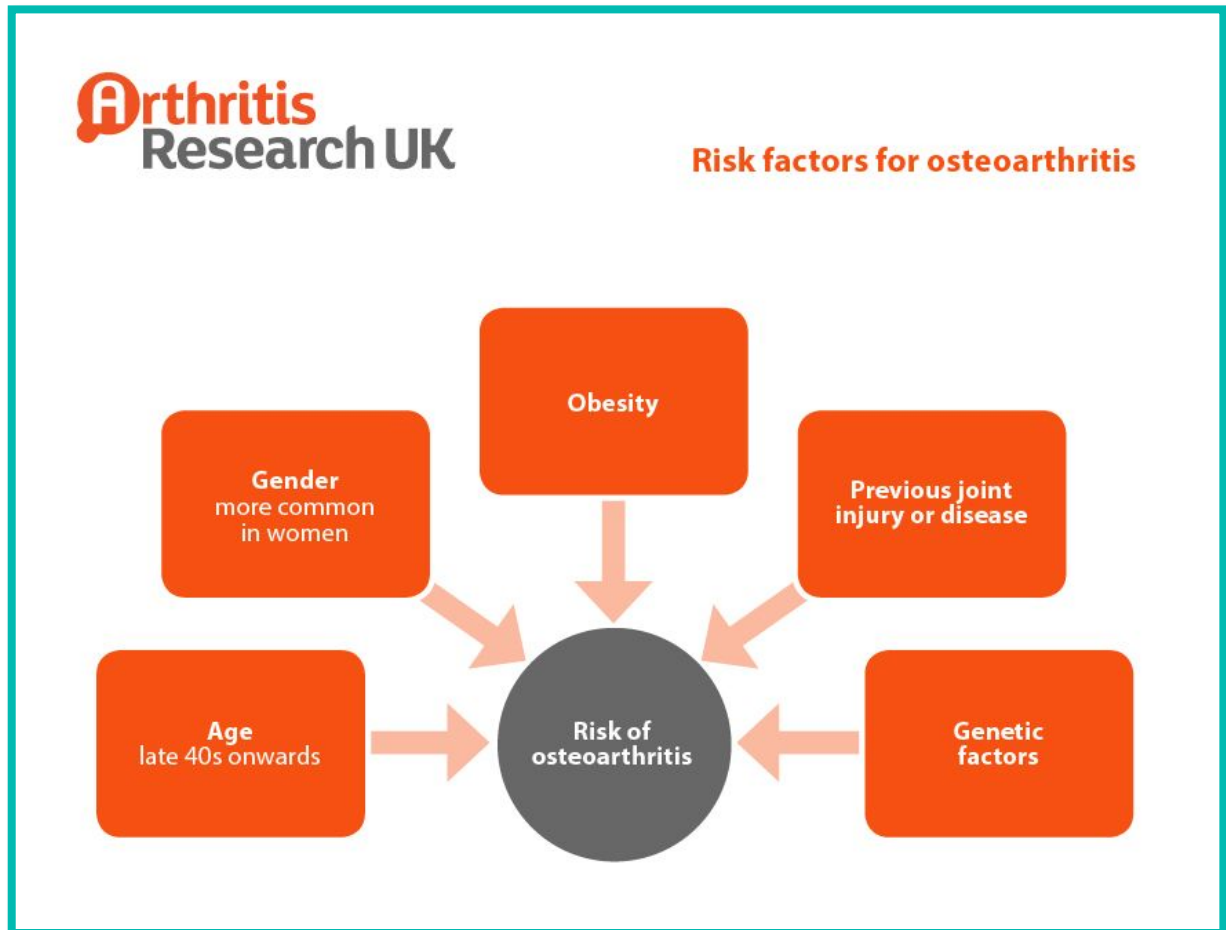
The word arthritis is used to describe pain, swelling and stiffness in a joint or joints. Around 10 million people in the UK are thought to have arthritis. It can affect people of all ages – even children and teenagers. Some forms of arthritis are more common in older people.

The most common type of arthritis is Osteoarthritis. It is estimated that around 8.75 million people in the UK have seen a doctor about osteoarthritis.

Osteoarthritis is more common in women and usually affects people from the age of 45 onwards. The parts of the body most commonly affected are the knees, hands, hips, and back.



Causes and Risk Factors



Obesity - Carrying extra body weight contributes to osteoarthritis in several ways, the more you weigh the greater your risk. Increased weight adds stress to weight-bearing joints.

Genetics - Some people inherit a tendency to develop osteoarthritis.

Joint injuries - Injuries such as those that occur when playing sports or from an accident can increase the risk of osteoarthritis.

Management

There are many ways in which arthritis pain can be managed conservatively and by utilising a combination of methods that work for you, it is important to know that it is all about 'Management'.

The way to think about this is that you are using these management techniques so that:

“You are in control of the Arthritis; the Arthritis is not controlling you”.

1. Pain relief and NSAID's (Anti-inflammatories)
2. Heat / Ice
3. Activity modification
4. Exercise

Medication

Over the counter pain relief or anti-inflammatory medication can be used to reduce your pain so you can be more active or complete your exercises.

All medications have side effects and must be used carefully. Paracetamol and ibuprofen are the most common over the counter painkillers. However, some medical conditions will prevent you from taking them, so you should always check with your GP or Pharmacist to ensure they are safe for you.

If you decide to take pain medication it is important to take them at the recommended dose and to take them regularly to prevent a flare up of your symptoms and allow you to remain active and continue exercising.

Don't wait until your pain is severe before taking the pain killers as they won't work as well.

Ice/Heat

Using Ice to cool or Heat to warm the painful area can be helpful in managing pain, swelling and help the healing process. The smaller the body area the less time you will need to keep the ice or heat on. Start with 5 minutes but no more than 15/20 minutes per body part.

Use a damp towel between yourself and ice to prevent any cold burns. Use a dry towel between yourself and the heat to prevent heat burns. Regularly check your skin while using ice or heat and remove immediately if any burns or injury occurs.

Use Ice for Pain relief or *after* activity/exercise.

Use heat for pain relief or *before* activity/exercise.

Corticosteroid injections

A corticosteroid injection may be suggested if your symptoms aren't resolving with the above advice. A corticosteroid injection can be used to help settle pain and inflammation. This will not resolve the problem but may help to reduce pain and inflammation, so you find it easier to do the exercises.

Further Investigations

Scans and x-rays are not routinely required to diagnose this condition. In some situations, they may be requested to rule out other conditions or determine the severity of the Osteoarthritis.

Activity Modification

The important thing to remember is that you should never stop going about your day-to-day activities or doing hobbies that you enjoy. It is simply a case of modifying your activity, so you are finding the right balance between activity and rest.

For example: Try taking short breaks of 3–5 minutes every 30–45 minutes to sit and rest your joints. Everybody is different so you can tailor this idea to a plan that suits your lifestyle better.

Exercise

Your body is designed to move and not doing so can harm the tissues in and around your joints. Exercise and sport are good for your physical and mental health.

Exercise helps to:-

- Keep your joints healthy
- Reduce pain
- Strengthen the muscles and bones
- Reduce your weight

Start off by doing a small amount of gentle exercise that's in your comfort zone, and gradually increase the amount you do – both in terms of the time you spend exercising and the effort you put in.

Below are some examples of exercises you can do little and often in the day to help with pain and stiffness symptoms that commonly arise with Osteoarthritic changes.

Aside from these exercises below other exercises that are useful to do are exercises that are more resistance based rather than impact based. (e.g Swimming, Cycling, Rowing).

Prognosis and Other Symptoms

Treatment focuses on improving the condition of the muscles that support the affected joint and avoiding aggravating activities as much as you are able. Improving muscle condition requires regular exercise, some examples of which you can find below. It will usually take several months to see any significant improvement

If:

- Your symptoms do not appear to be the same nature or pattern as described in this leaflet.
- Your symptoms have not improved or are becoming worse.
- You feel generally unwell and have a high temperature or feel hot and shivery
- You have very severe joint pain that isn't settling with the above advice.
- Your affected joint is locking or giving way.

Then please contact your GP for a review.

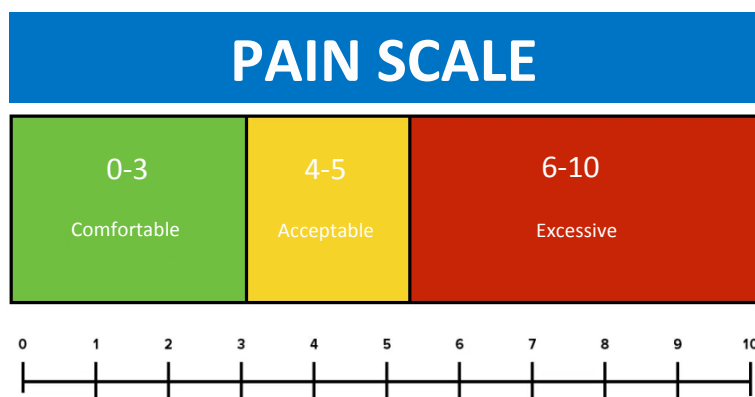
Exercise

Pain during exercises should be manageable. Aim to stay within the green and amber zones. If experiencing excessive pain then you can modify the exercise, and then slowly build it back up over time;

- Reduce the range of movement
- Reduce repetitions
- Reduce the resistance/weight being used
- Slower, less intensity and control the movement more
- Increase the rest between each set of exercises

Progress onto the next stage of exercise once they become easier and you can fully complete the exercises in the comfortable zone of the pain scale.

- Pain after exercise should settle to your pre exercise levels within 30-60 minutes.
- Pain or stiffness due to exercise in the next morning should not last longer than 60 minutes.
- Use your pain relief, ice/heat or anything else you have found that eases your symptoms to help manage.





Stretching exercises

Try to do these exercises every day.

Leg stretch

Sit on the floor with your legs stretched out straight in front of you. Slowly bend one knee up towards your chest, sliding your foot along the floor, until you feel a gentle stretch. Hold for five seconds. Straighten your leg as far as you can and hold in this position for five seconds.

Repeat 10 times with each leg. If you can't get down onto the floor, sit on a sofa and use a board or tea tray as a surface to slide your foot along.



Muscle stretch

Lay down with a rolled-up towel under the ankle of your leg. Bend the other leg at the knee. Use the muscles of your straight leg to push the back of your knee firmly towards the bed or the floor. Hold for a slow count of five.

Repeat at least five times with each leg. This exercise helps to prevent your knee from becoming permanently bent. Try to do this at least once a day when lying down.



Straight-leg raise (sitting)

Sit with good posture in a chair. Straighten one of your legs, hold for a slow count to 10 and then slowly lower your leg. Repeat 10 times with each leg.

If you find you can do this easily, straighten and raise one leg, before holding for a count of 10. Try to get into the habit of doing this exercise every time you sit down.





Strengthening exercises

The following exercises might be quite hard to do, so try to do them two to three times a week.



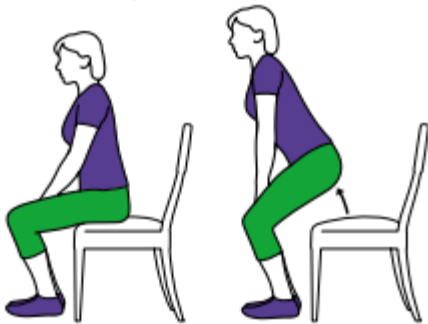
Straight-leg raise (lying)

Lay down and bend one of your legs at the knee. Hold your other leg straight and lift your foot just off the bed or floor. Hold for a slow count of five, then lower. Do this until you cannot do any more, rest for a minute, then do this a further three times.

Sit/stands

Sit on a chair. Without using your hands for support, stand up and then sit back down. Make sure each movement is slow and controlled. Repeat until you can't do any more.

Rest for one minute then repeat another two times. If the chair is too low, start with rising from a cushion on the seat and remove when you don't need it any more.



Leg cross

Sit on the edge of a table, seat or bed and cross your ankles. Push your front leg backwards and back leg forwards against each other until your thigh muscles become tense.

Hold this for as long as you can, then relax. Rest for one minute and then repeat another two times. Switch legs and repeat.





Knee squats

Hold onto a chair or work surface for support. Squat down until your kneecap is directly over your big toe. Return to normal standing.

Repeat until you can't do anymore, rest for one minute, then repeat another two times. As you improve, try to squat a little further, but don't bend your knees beyond a right angle.

Step ups

Step onto the bottom step of stairs with your right foot. Bring up your left foot, then step down with your right foot, followed by your left foot. Hold on to the bannister if necessary.

Repeat with each leg until you can't do any more. Rest for one minute and then repeat this another two times. As you improve, use a higher step.

