Osteoarthritis

What is osteoarthritis?
Arthritis is not just an ailment of older people; it can affect people of all ages, including children. Osteoarthritis is characterised by the breakdown of cartilage – the part of a joint that cushions the ends of the bones and allows easy movement.

As cartilage deteriorates, bones begin to rub against one another. This can cause stiffness and pain that make it difficult for you to use that joint. Osteoarthritis can also damage ligament and muscles. In some cases a joint that has been damaged by osteoarthritis will be replaced.

There are two types of osteoarthritis – primary and secondary.
- Primary osteoarthritis is generally associated with aging and the ‘wear and tear’ of life. The older you are, the more likely you are to have some degree of primary osteoarthritis.
- Secondary osteoarthritis, in contrast, tends to develop relatively early in life, typically 10 or more years after a specific cause, such as an injury or obesity.

Causes
Despite the disease being common, the causes of osteoarthritis are not completely understood. There is no cure. Many different factors may play a role.

Age
Simple ‘wear and tear’ on the joints is a factor. The older you are, the more you have used them. However, that doesn’t mean osteoarthritis is an inevitable part of aging because not everyone gets it.

Muscle weakness
Studies show that weakness of the muscles surrounding the joints is associated with osteoarthritis, especially in women, and makes the pain and stiffness worse after onset. Strengthening muscles are important in reducing the risk.

Obesity
Increased body weight, which adds stress to lower body joints, is a well established factor in the development of osteoarthritis. Your knees are particularly at risk. For every pound you gain, you add four pounds of pressure on your knees and six times the pressure on your hips. Gaining weight as you head toward middle age can increase the likelihood of developing osteoarthritis.
Recent research suggests that excess body fat produces chemicals that travel throughout the body and cause joint damage. Therefore obesity could affect joints in this way as well as overloading joints.

**Injury or overuse**
Athletes and people whose jobs involve repetitive motion (landscaping, typing or operating machinery), have a higher risk of developing osteoarthritis due to injury and increased stress on certain joints. It can also appear in joints affected by previous bone fractures and soft tissue injuries and surgery.

**Genetics or heredity**
Inherited bone abnormalities that affect joint shape or stability or defects that cause cartilage to form abnormally can lead to osteoarthritis. Having these traits, however, doesn’t mean you’ll develop osteoarthritis. It just means that you and your doctor should monitor signs and symptoms.

**Diagnosis**
A diagnosis will be made on the basis of your symptoms, a physical examination and medical tests.

Your doctor or physiotherapist will:
- check for any bony swellings and creaking joints, as well as looking out for any restricted movement, joint tenderness or instability

You may have:
- a blood test to rule out other kinds of arthritis
- X-rays to confirm osteoarthritis and show the joint changes

If you are diagnosed with osteoarthritis, your GP will be your main contact for managing your condition.

You may be referred to a physiotherapist for joint care advice. If your arthritis is severe, the GP can refer you to a rheumatologist, orthopaedic surgeon or pain specialist.

The joints that are most commonly affected are the hips, knees and hands.

**Symptoms**
The main symptoms of osteoarthritis are:
- pain, especially when doing load-bearing activities, such as walking
- short-lived stiffness in the morning, which improves in 30 minutes or less when you start to move
- difficulty moving your affected joints or doing certain activities

However, in some cases of osteoarthritis you may not have any symptoms at all, as the pain can come in episodes. Often, you will only experience symptoms in one joint or a few joints at any one time. Your symptoms may also develop slowly. Other features may include:
- joint tenderness
• increased pain and stiffness when you have not moved your joints for a while
• joints appearing slightly larger or more 'knobbly' than usual
• a grating or crackling sound or sensation in your joints
• limited range of movement in your joints
• weakness and muscle wasting (loss of muscle bulk)

Treatment

Exercise and lifestyle changes
Exercise is the most important treatment for people with osteoarthritis, whatever your age or level of fitness. Your physical activity should include a combination of exercises to strengthen your muscles and exercises to improve your general fitness.
Being overweight or obese makes osteoarthritis worse. The extra weight puts more strain on damaged joints, which have a reduced ability to repair themselves. Joints in the lower limbs, which carry your weight, are under particular stress if you are overweight or obese.

Physiotherapy
A physiotherapist can mobilise joints and soft tissue as well as prescribe correct exercises and pain relieving resting positions.

Pain relief
Correct pain medication or the use of a TENs machine can be beneficial. You should seek advice from your doctor or physiotherapist.

Surgery
In more severe cases when the quality of your life is being affected, surgery may be implicated. This is always a last resort.