

## Osteoarthritis

Osteoarthritis causes pain and stiffness in joints. Symptoms may be helped by exercises, physiotherapy, and losing weight if you are overweight. Regular Tylenol will often ease symptoms. Other medicines are sometimes advised. Joint replacement surgery is an option for severe cases.

### What is osteoarthritis?

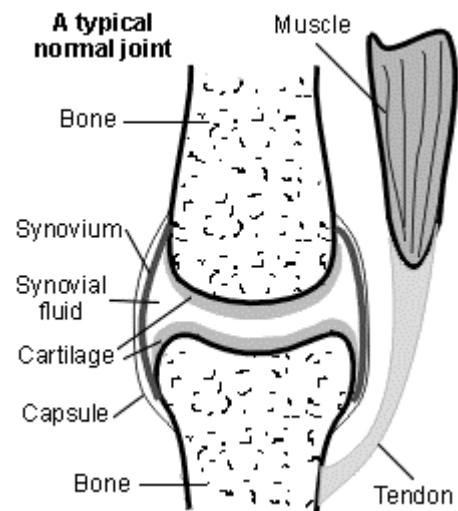
Arthritis means inflammation of the joints. Osteoarthritis (OA) is the commonest form of arthritis in the US. OA mainly affects the joint cartilage and the bone tissue next to the cartilage.

### Understanding joints

A joint is where two bones meet. Joints allow movement and flexibility of various parts of the body. The movement of the bones is caused by muscles, which pull on tendons that are attached to bone.

Cartilage covers the end of bones. Between the cartilage of two bones, which form a joint, there is a small amount of thick fluid called synovial fluid. This fluid 'lubricates' the joint, which allows smooth movement between the bones.

The synovial fluid is made by the synovium. This is the tissue that surrounds the joint. The outer part of the synovium is called the capsule. This is tough, gives the joint stability, and stops the bones from moving 'out of joint'. Surrounding ligaments and muscles also help to give support and stability to joints



### What causes osteoarthritis?

In OA the cartilage becomes damaged and worn. OA is often called the 'wear and tear' arthritis. This is too simple, and the exact reason why the cartilage of some joints becomes damaged is not clear. The state of the blood supply to the joint, and the state of the natural mechanisms of repair are thought to play a role. There may be some inherited tendency for OA to develop. Age has some part to play as OA becomes more common with increasing age.

## Who gets osteoarthritis?

- **Primary OA** develops in previously healthy joints. Most cases develop in people over 50. By the age of 65, at least half of people have some OA in some joint(s). It is mild in many cases, but about 1 in 10 people over 65 have a major disability due to OA.
- **Secondary OA** develops in joints previously abnormal for a variety of reasons. For example, it may develop in injured or deformed joints. This can occur in younger people.

## Which joints are affected?

The larger weight bearing joints are the most commonly affected. Hips, knees, and lower spine are the common sites, but any joint can be affected. In many cases, just a few joints develop symptoms with one or two becoming the most troublesome. In some cases, OA develops in many joints throughout the body.

## What are the symptoms of osteoarthritis?

- Pain, stiffness, and limitation in full movement of the joint are typical. The stiffness tends to be worse first thing in the morning but tends to 'loosen up' after half an hour or so.
- Swelling and inflammation of an affected joint can sometimes occur.
- An affected joint tends to look a little larger than normal due to overgrowth of the bone next to damaged cartilage.
- Deformities of joints due to OA are uncommon.
- You may have poor mobility if a knee or hip is badly affected.
- No symptoms may occur. Quite a number of people have X-ray changes that indicate some degree of OA but have no, or only very mild, symptoms. The opposite can also be true. That is, you may have quite severe symptoms but with only minor changes seen on the X-ray.

## What is the outlook (prognosis) for people with osteoarthritis?

To have a certain degree of OA can almost be considered a normal part of ageing. A common wrong belief is that OA is always a progressive and serious disease. The severity of symptoms varies. In many older people, OA is mild, does not become worse, and does not make you any more disabled than expected for your age.

Symptoms often wax and wane. Sometimes this is related to such things as the weather. Symptoms often improve in warmer months. A bad spell of symptoms may be followed by a relatively good period. However, in some cases, the severity of OA and the disability it causes is out of proportion to your age. One or more joints may become particularly badly affected.

## What are the treatments for osteoarthritis?

### General measures

- **Exercise.** If possible, exercise regularly to strengthen the muscles around affected joints and to maintain joint movement. Swimming is ideal for most joints but any exercise is better than none. Many people can manage a regular walk. It is thought that physical activity gives some protection against ongoing disease and disability.
- **Weight.** Try to lose any excess weight as the extra burden placed on back, hips, and knees can make symptoms worse. Even a modest amount of weight loss can make quite a difference.
- **Walking aids or shoe insoles** may ease the burden on affected joints and ease symptoms.
- **Warmth.** If you keep affected joints warm it may help to ease stiffness and pain.
- **Physiotherapy** may be useful for advice on exercises and other treatments. For example:

- Exercises to strengthen the muscles above the knee (quadriceps) are usually advised for OA of the knee. Strengthening the 'quads' has been shown to improve symptoms.
- Advice on how to keep active and fit, and how to use walking aids properly. If you use a walking aid properly, it can take the weight off joints and help to ease symptoms.
- Other pain relieving treatments may be advised.
- **Occupational therapy** may be advised if you need aids or modifications to your home to cope with any disability caused by OA.

### Medicines

- **Tylenol** often works well to ease pain. It is best to take it **regularly** to keep pain away, rather than 'now and again' when pain flares up. Two 500 mg tablets, four times a day, is a normal adult dose. It usually has no side effects, and you can take Tylenol indefinitely without it losing its effect.
- **Anti-inflammatory painkillers** are an option if Tylenol does not help. There are many different brands. If one does not suit, another may be fine. Side effects sometimes occur with these medicines.
  - Stomach pain and bleeding from the stomach are the most serious side effects. These are more of a risk if you are over 65, or have had a duodenal or stomach ulcer. Stop the medicine and see a doctor if you develop stomach symptoms.
  - Some people with asthma, high blood pressure, kidney failure, and heart failure may not be able to take anti-inflammatory painkillers.
- **Codeine** in combination with Tylenol may be an option if anti-inflammatories don't suit. Constipation is a common side effect from codeine. To help prevent constipation, have lots to drink and eat a high fiber diet.
- **An injection of steroid medicine** directly into a joint is an option if it becomes badly inflamed. This is uncommon.
- **An injection of a medicine called hyaluronic acid** directly into a joint is a relatively new treatment. This is thought to help with 'lubrication' and 'shock absorption' in a damaged joint. Its effect lasts several weeks. It may be used to ease severe symptoms.

### Surgery

Most people with OA do not have it badly enough to need surgery. However, OA of a joint may become quite severe in some cases. Some joints can be replaced with artificial joints. Hip and knee replacement surgery has become a standard treatment for severe OA of these joints. Some other joints can also be replaced. The success of surgery is high. However, like any operation, joint replacement surgery is not without risk.