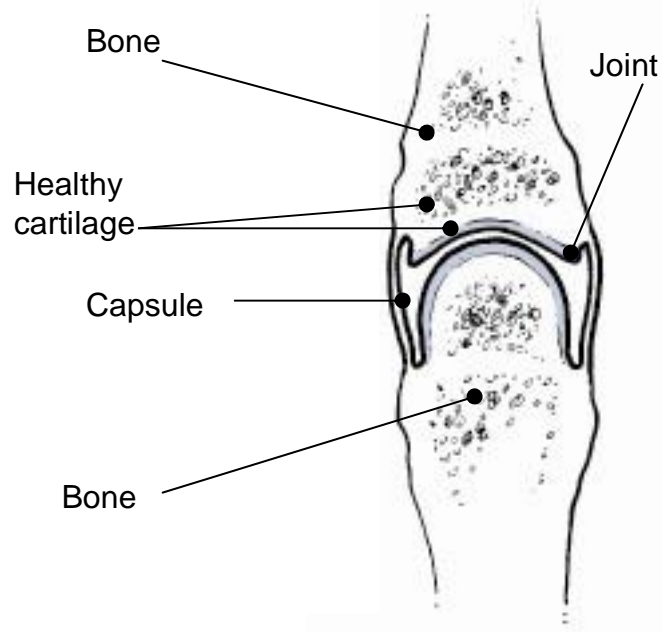


**OSTEOARTHRITIS.** There are many forms of arthritis, or inflammation of the joints. One of the most common forms is called degenerative arthritis, or osteoarthritis (which is different from rheumatoid arthritis). A joint is the area where two bones meet and move back and forth next to each other. The ends of each bone are covered with smooth cartilage and are enclosed within a soft tissue capsule. Fluid is produced within the joint capsule to lubricate the cartilage and allow the bones to move against each other smoothly (Fig. 1). Osteoarthritis develops when the smooth cartilage surface begins to wear out and the bone underneath is exposed. It can progress until the cartilage is completely worn away and the bare ends of the bones are rubbing or grinding together (Fig. 2). Cartilage does not have nerve endings, so in a normal joint, you do not feel pain when the bones move back and forth against each other. However, the ends of your bones do contain nerve endings, so when osteoarthritis develops and the bones become exposed, you feel pain as they rub against each other.



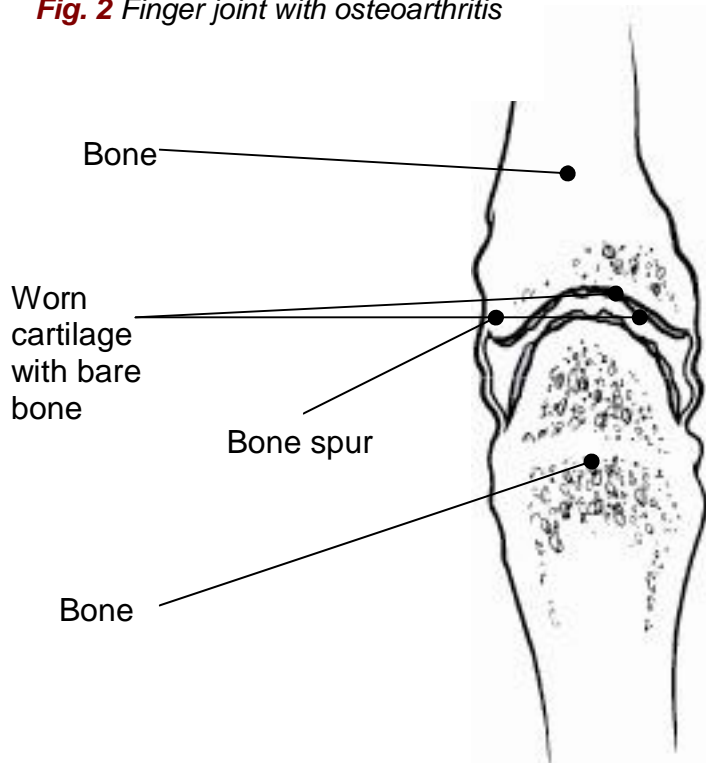
**Fig. 1** In a healthy joint, the ends of the bones are covered in cartilage that allows them to move together smoothly.

**Causes.** Osteoarthritis is most commonly caused by the long-term motion that occurs in joints. Eventually, all moving parts wear out; joints are no exception. As your body ages and the cartilage thins, arthritis slowly develops. It can take many years for the symptoms to appear. The presence of osteoarthritis in one joint does not necessarily mean that it will occur in other joints.

Another common cause of osteoarthritis is injury. Injury to a bone or joint can cause arthritis to develop. The most common traumas that cause osteoarthritis are fractures that extend into the joints and dislocations that separate the two bone ends in the joint (Fig. 3).

**Symptoms.** The most common symptoms of osteoarthritis are pain, swelling, and stiffness. You typically have the least amount of pain in the morning when you wake up; however, you may have stiffness. Your pain gradually increases throughout the day as you use your joints. By the end of the day, your joints may

**Fig. 2** Finger joint with osteoarthritis

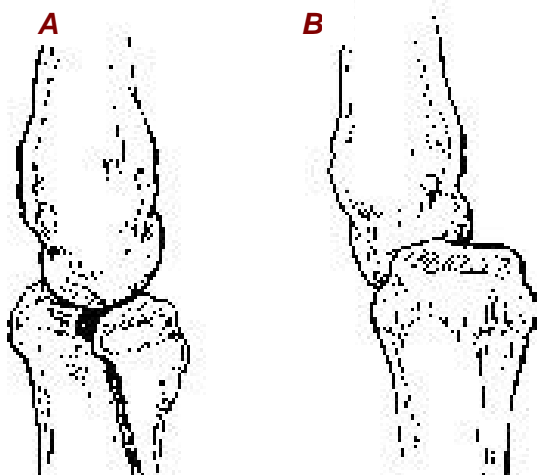


be swollen. As the arthritis progresses, your joints may become permanently swollen and stiff and can lose the ability to move normally.

**Diagnosis.** To find out if you have osteoarthritis and how severe it is, your doctor will examine the joints that are painful and will ask you if any other joints in your body hurt, such as your hips, knees, ankles, or neck and spine. X-rays of your joints are necessary to make the best and most accurate evaluation and diagnosis of osteoarthritis.

**Treatment.** There are many forms of treatment for osteoarthritis. The most important thing to understand is that

treatment depends largely on your symptoms and how they affect your life. Therefore, you must tell your doctor how much pain you have and if there are any activities that you cannot do. It is also important to understand that there is no way to reverse arthritis or rebuild normal joint cartilage. The goal of treatment is to decrease pain, swelling, and stiffness.



**Fig. 3 A,** The fracture extends into the joint and disrupts the smooth even surface, resulting in injury to the cartilage and eventually arthritis.

**B,** Dislocation of a joint tears the capsule and damages the cartilage.

Usually, the first treatment your doctor will try for osteoarthritis is anti-inflammatory medications, such as aspirin or ibuprofen, to decrease swelling and pain and physical therapy (exercises) to strengthen your muscles and maintain joint motion. Also, splinting can provide support and relieve pain. An injection of cortisone, which is a strong anti-inflammatory medication, into the joint can help decrease the inflammation and pain. If cortisone injections significantly relieve your pain, you may be able to have several injections over the course of a year. However, if your symptoms persist and make daily activities difficult, surgery may be an option for you. There are many types of surgical procedures to treat osteoarthritis. The one your doctor chooses for you will depend on many factors including your age, the activities

you expect to do after surgery, and your overall health.

There is no cure for osteoarthritis. Treatments are aimed either at decreasing the inflammation and pain and slowing the progression of joint destruction or at reconstructing the joint. They are usually successful at relieving the symptoms associated with osteoarthritis.

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