

Osteoarthritis of the Elbow

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Introduction

The elbow joint is injured less often than many other joints in the body. The most common injuries of the elbow joint are fractures and dislocations. Most elbow injuries tend to heal pretty well.

However, an elbow injury can lead to problems later in life. The injury changes the way the joint works just enough to cause extra wear and tear to the surfaces of the joint. Over time, the joint degenerates, causing pain and difficulty with daily activities. This condition is called osteoarthritis, degenerative arthritis, or posttraumatic arthritis.

This guide will help you understand

- how elbow osteoarthritis develops
- how elbow osteoarthritis is diagnosed
- what can be done to ease the pain and regain elbow movement

Anatomy

What parts of the elbow are affected?

The elbow joint is made up of three bones: the humerus bone of the upper arm, and the ulna and radius bones of the forearm.

The ulna and the humerus meet at the elbow and form a hinge. This hinge allows the arm to straighten and bend. The large triceps muscle in the back of the arm attaches to the point of the ulna (the olecranon). When the triceps muscle contracts, it straightens out the elbow. The biceps muscles in the front of the arm contract to bend the elbow.

View
animation of hinge movement

The connection of the radius to the humerus allows the forearm to

rotate. The upper end of the radius is round. It turns against the ulna and the humerus as the forearm and hand turn from palm down (pronation) to palm up (supination).

View
animation of elbow pronation/supination

In the elbow joint, the ends of the bones are covered with articular cartilage. Articular cartilage is a slick, smooth material. It protects the bone ends from friction when they rub together as the elbow moves. Articular cartilage is soft enough to act as a shock absorber. It is also tough enough to last a lifetime, if it is not injured.

Related Document: [A Patient's Guide to Elbow Anatomy](#)

Causes

What causes osteoarthritis?

Osteoarthritis is caused by degeneration of the articular cartilage of a joint. Degeneration is wear that happens over time. Doctors use the term degenerative arthritis to describe the wear and tear of a joint over many years. Degenerative arthritis is another term for osteoarthritis.

View
animation of degeneration

Treatment

What can be done to get rid of my pain?

Nonsurgical Treatment

In almost all cases, doctors try nonsurgical treatments first. Surgery is usually not considered until it has become impossible to control your symptoms.

The goal of nonsurgical treatment is to help you manage your pain

and use your elbow without causing more harm. Your doctor may recommend nonsteroidal anti-inflammatory drugs (NSAIDs), such as aspirin and ibuprofen, to help control swelling and pain. Other treatments, such as heat, may also be used to control your pain.

Interposition Arthroplasty

Before the invention of high-quality artificial joints, surgeons used many techniques to keep the bone surfaces of arthritic joints from rubbing against each other. One of these techniques is interposition arthroplasty. This procedure involves placing a piece of tendon or fascia between the bony surface of the elbow joint. (Fascia is a connective tissue, similar to tendon, that lies in a flat sheet. It covers the muscles and acts as a divider between different compartments of the body.)

As the joint heals, the tendon or fascia forms a cushion of thick, tough tissue between the bones. The tissue pads the ends of the bones and reduces pain while still allowing the elbow to move.

Interposition arthroplasty is still a useful procedure in some cases. It works fairly well in the elbow. It doesn't work very well in the weight-bearing joints of the hip, knee, and ankle.

Related Document: [A Patient's Guide to Interposition Arthroplasty of the Elbow](#)

Elbow Fusion

A fusion surgery (also called arthrodesis) eliminates pain by making the bones of the joint grow together, or fuse, into one solid bone. Fusions were very common before the invention of artificial joints. Even today, joint fusions are commonly used in many different joints to get rid of the pain of arthritis.

An elbow fusion will greatly decrease the motion in your arm. However, it does leave you with a strong and pain-free elbow. People who need a good range of motion in their elbow should consider another type of operation, such as an elbow joint replacement.

Related Document: [A Patient's Guide to Elbow Fusion](#)

Elbow Joint Replacement

Elbow joint replacement

is not nearly as common as hip, knee, or shoulder replacement. This is true for a couple of reasons. Osteoarthritis in the elbow is not as common as osteoarthritis in weight-bearing joints. Elbow joint replacement also has a higher complication rate than the more common replacement surgeries. Infection and slowed healing in the surgical incision are two complications of this type of procedure.

The elbow joint replacement is a good choice for patients who need improved motion rather than strength. Older patients who don't need as much strength will probably prefer the results of elbow replacement surgery. Patients with advanced rheumatoid arthritis are also good candidates for elbow joint replacement.

Related Document: [A Patient's Guide to Artificial Joint Replacement of the Elbow](#)

Rehabilitation

When will I be able to use my elbow again?

Nonsurgical Rehabilitation

If you don't need surgery, range-of-motion exercises for the elbow should be started as pain eases. These exercises are followed by a program of strengthening that may include shoulder and upper back exercises. You'll be given tips on keeping your symptoms under control. You will probably progress to a home program within four to six weeks.

After Surgery

Your elbow will be bandaged with a well-padded dressing and an elbow splint for support. Physical or occupational therapy sessions may be needed for up to three months after surgery. The first few treatment sessions will focus on controlling the pain and swelling from surgery. You will then begin to do exercises that help strengthen and stabilize the muscles around the elbow joint. Your therapist will give you tips on ways to do your activities without straining your elbow.