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Osteoarthritis of the Elbow

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.

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.

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.

What symptoms do I have with my osteoarthritis ?

Pain is the main symptom of osteoarthritis of any joint.

At first, the pain comes only with activity. Most of the time the pain lessens while doing the activity, but after resting for several minutes pain and stiffness increase. As the condition worsens, you may feel pain even when resting. The pain may interfere with sleep.

When all the articular cartilage is worn off the joint surface, you may begin hearing a squeak and feel a creak in the joint when you move your elbow. This creaking sensation is called crepitus.

Stiffness: Osteoarthritis eventually affects the elbow's motion. The elbow joint is one of the most sensitive to injury. It quickly becomes stiff and loses motion. The first thing most people notice is that it becomes hard to completely straighten the arm. Later they find it hard to bend.

How will my doctor know if I have osteoarthritis?

A medical history of the problem.

Any past injuries to your elbow.

For example, throwing athletes (Rugby) have a higher risk of developing osteoarthritis of the elbow later in life.

A physical examination of the elbow

The moving and prodding may hurt, but it is important that your doctor sees exactly where and when

you feel pain.

Your doctor will feel for catching sensations as the joint moves. Catching may be caused by loose fragments of cartilage and bone

X-rays are usually the best way to see what is happening with your bones.



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.

Rehabilitation services, such as physical and occupational therapy, have a critical role in the treatment plan for elbow osteoarthritis.

Strengthening exercises for the arm help steady the elbow and protect the joint from shock and stress.

Your therapist will give you tips on how to get your tasks done with less strain on the joint.

To get rid of your pain, you may also need to limit your activities. You may even need to change jobs, if your work requires heavy, repetitive motions with the hand and wrist.

An injection of cortisone into the elbow joint can give temporary relief. Cortisone is a powerful anti-inflammatory medication. It can very effectively relieve pain and swelling

Surgery

Eventually, it may be necessary to consider some type of surgical treatment. There are several operations to treat advanced osteoarthritis of the elbow.

1. Arthroscopic Debridement

If you are in an early stage of osteoarthritis, your doctor may recommend **arthroscopic debridement**. Arthroscopic procedures use an arthroscope, a tiny TV camera that is inserted into the joint through a very small incision. The arthroscope allows the surgeon to see inside the elbow joint.

2. 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

3. 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. Low demand pt with OA or post-traumatic degeneration [who do not lift more than 5 kg]

Patients with advanced rheumatoid arthritis are also good candidates for elbow joint replacement.



When will I be able to use my elbow again?

Your elbow will be bandaged with a well-padded dressing

Physical or occupational therapy sessions

The first few treatment sessions controls the pain and swelling from surgery.

You will then begin to do exercises that help strengthen and stabilize the muscles

Therapist will give you tips on ways to do your activities without straining your elbow.

What may go wrong after total elbow arthroplasty?

Infection 1-2%

Loosening

Peri-prosthetic fracture

Component failure

25% ulnar nerve irritation