Arthritis of the Wrist

Arthritis affects millions of people in the United States. Simply defined, arthritis is inflammation of one or more of your joints. A joint is where the ends of bones meet. The bones are normally covered with cartilage (allows almost friction free gliding). In arthritis the cartilage wears out and the bone rubs on bone. This may cause inflammation, swelling, pain, and stiffness in the joint.

A significant number of people have arthritis in their wrists and hands, which makes it difficult for them to do daily activities.

Description

Although there are hundreds of kinds of arthritis, most wrist pain is caused by just two types: osteoarthrosis and rheumatoid arthritis. We will discuss the most common, osteoarthrosis.

Osteoarthrosis

Osteoarthrosis (OA) is a condition that can destroys the smooth articular cartilage covering the ends of bones. Healthy joints move easily because of articular cartilage. Osteoarthrosis causes this cartilage to wear away. When the bare bones rub against each other, it results in pain, stiffness, and weakness.

Example of OA, called SLAC wrist. The cartilage between the scaphoid (S) and radius (R) is worn out

Osteoarthrosis- Cause

Osteoarthrosis can develop due to normal "wear-and-tear" in the wrist, particularly in people who have a family history of arthritis. It may also develop as a result of a traumatic injury, such as a broken wrist bone or a wrist sprain (ligament tear).

Osteoarthrosis of the wrist can also develop from Kienböck's disease (See Kienböck's handout). In Kienböck's disease, the blood supply to one of the small bones of the hand near the wrist (the lunate) is interrupted. If the blood supply to a bone stops, the bone can die. Over time, this can lead to osteoarthritis.

Symptoms- OA

OA of the wrist joint causes swelling, pain, limited motion, and weakness. These symptoms are usually limited to the wrist joint itself.

Doctor Examination

Your doctor will use a combination of patient history, physical examination, and x-rays to diagnose arthritis of the wrist.

X-rays are imaging tests that create detailed pictures of dense structures, like bone. They can help diagnosis arthritis and distinguish among various forms of arthritis.

Blood tests sometimes help to diagnose rheumatoid arthritis. Osteoarthritis is not associated with blood abnormalities.

Treatment

Nonsurgical Treatment

In general, early treatment is nonsurgical and designed to help relieve pain and swelling.

Several therapies can be used to treat arthritis, including:

- **Modifying your activities.** Limiting or stopping the activities that make the pain worse is the first step in relieving symptoms. Using the wrist in neutral (straight) position can help.
- **Immobilization.** Keeping the wrist still and protected for a short time in a splint can help relieve symptoms.
- **Medication.** Taking non-steroidal anti-inflammatory medications, such as aspirin or ibuprofen, can reduce both pain and swelling.
- **Exercise.** Following a prescribed exercise program. Specific exercises can improve the range of motion in your wrist.
- **Steroid injection.** Cortisone is a powerful anti-inflammatory medicine that can be injected into the wrist joint.

Surgical Treatment

When nonsurgical treatments are no longer effective, resulting in progressive loss of hand and wrist function, surgery is an option. The goal of surgery is to relieve pain and to preserve or improve hand function.

Surgical options include:

- **Removing the arthritic bones.** In this procedure, three carpal bones are removed. This procedure, called a proximal row carpectomy (PRC), will relieve pain while maintaining partial wrist motion.
- **Fusion.** When motion is the source of pain, carpal bones can be fused together to make one, solid bone. A fusion can be partial, in which just some of the carpal bones are fused together. This eliminates pain and retains some wrist motion. When the arthritis is extensive, a complete (total) fusion may be necessary. In this procedure, all of the carpal bones are fused together, as well as the radius. This completely eliminates wrist motion, but does not affect forearm rotation (turning hand palm up and palm down).

Normal wrist x-ray


Proximal row carpectomy


Partial fusion
4-corner fusion


Total wrist fusion

- **Joint replacement.** This surgery removes the damaged joint and replaces it with an artificial device (prosthesis). This surgery may help retain or recover wrist movement. The indications for a wrist replacement are very narrow and a wrist replacement is indicated for very few people with arthrosis. A 5 lb. maximum lifting (lifetime) is recommended.

Rarely performed

Your physician will discuss with you the surgical options and select the one that is best for you.

Living with Arthrosis

Learning you have arthrosis can be discouraging. In addition to the many treatment options for arthrosis, there are things you can do to lessen the impact the disease has on your life.

- **Talk to your doctor.** If your symptoms worsen or you are having a hard time coping, your doctor can review your treatment plan. A visit to a Rheumatologist (arthritis specialist) can be helpful.
- **Get plenty of rest.** Arthritis can make you more tired, and your arthritis symptoms may worsen when you are fatigued. Try to get a full night's sleep, and take short naps during the day if you need to.
- **Exercise.** Maintain a healthy exercise program.
- **Alternative treatment.** Discuss alternative medicine with your doctor. Some alternative therapies appear to help arthritis pain. Talk to you doctor before trying any alternative treatments. They could interfere with your treatment plan. A visit to a Rheumatologist (arthritis specialist) can be helpful. A visit to a hand therapist can be helpful in learning how you can modify your activities and continue to do the activities that you need to and love to do.

Modified from AAOS http://orthoinfo.aaos.org/topic.cfm?topic=A00218