

What is osteoarthritis?

The most common form of arthritis, osteoarthritis (OA), is also known as "wear and tear" arthritis because it is caused by the slow and steady degeneration of the smooth cartilage that covers the ends of bones. Healthy cartilage provides joints with a normal, pain-free range of motion and function and allows them to glide smoothly in their sockets, but osteoarthritis breaks down the cartilage and narrows the spaces in which the joints move. Symptoms of osteoarthritis range from pain and inflammation to swollen, distorted joints. Osteoarthritis predominantly affects people 45 years of age and older, but it can also occur in young people as a result of a knee injury or overuse in recreational or job-related activities.

Americans with osteoarthritis

The Centers for Disease Control and Prevention (CDC) reports that osteoarthritis affects 27 million American adults. A painful joint disease, osteoarthritis can interfere with your ability to work as well as limit your daily activities and quality of life. The CDC predicts that nearly one in two people may develop symptomatic knee osteoarthritis by age 85.

Types of osteoarthritis

Osteoarthritis most often affects the joints in the knee, hip, spine and hand, because those joints are often overused and abused. Increasingly, people who work at computers every day are developing osteoarthritis because of the repetitious nature of keyboard entry for hours at a time. In addition, the joints in the knee, hip and spine have to carry your body weight. That's why people who are overweight or obese are at higher risk for developing osteoarthritis.

Rheumatoid arthritis in the hands is a chronic autoimmune disease that causes inflammation of the joints and the tendons of the fingers, hand and wrist. Inflammation from rheumatoid arthritis can be so severe that the joints of your fingers and wrists become deformed, making it difficult to move. Additionally, lumps known as rheumatoid nodules may form on your hands, wrists, arms and legs.

Symptoms

Osteoarthritis causes the cartilage in your joints to become stiff and lose its elasticity. The stiffness makes the cartilage more susceptible to damage. Over time, the cartilage may wear away in some areas, greatly decreasing its ability to act as a shock absorber.

As the cartilage deteriorates, tendons and ligaments stretch, causing pain. If the condition worsens, the bones could rub against each other.

You may experience one or more of these common symptoms of osteoarthritis:

- Joint pain, aching and soreness, especially with movement
- Joint swelling
- Joint tenderness when you apply light pressure to it
- Pain after overuse or after long periods of inactivity
- Joint stiffness, especially after sleeping or inactivity
- Limited joint movement as the disease progresses
- Grinding of joints when moving as the cartilage wears away (in more advanced stages of osteoarthritis)
- Extra bits of bone known as bone spurs, which feel like hard lumps, may form around the affected joint
- Bony enlargements in the middle and end joints of the fingers which may or may not be painful

- Rheumatoid arthritis often causes inflammation symmetrically in your body: the same joints are affected on both sides. For example, if you have rheumatoid arthritis in one hand, it will most likely affect the other hand, too.
- Each individual may experience symptoms differently. The symptoms of osteoarthritis may resemble other medical conditions or problems, so always consult your physician for an accurate diagnosis.

Causes

- There are two classifications for osteoarthritis—primary and secondary. The cause of primary osteoarthritis is unknown; the cause of secondary osteoarthritis is another disease, infection, injury or deformity.
- The exact cause of rheumatoid arthritis in the hands is not known. Rheumatoid arthritis is an autoimmune disorder, which means the body's immune system attacks its own tissues. The body's response to the attack causes inflammation in and around the joints and eventually may destroy the joints and surrounding structures such as tendons. Rheumatoid arthritis also may have devastating effects on other organs such as the heart and lungs.

Risk factors

Risk factors associated with osteoarthritis include:

- **Heredity**—Slight joint defects or double-jointedness (laxity) and genetic defects may contribute to the development of osteoarthritis.
- **Obesity**—Over time, excessive weight can place undue stress on joints such as the knees, hips and spine.
- **Injury or overuse**—A significant injury to a joint, such as the knee, can later result in osteoarthritis even if your injury was treated properly at the time. Repeated overuse or misuse of a joint may also cause injury.
- **Occupation**—Certain occupations involving repetitive movements of the joints such as squatting and bending are associated with osteoarthritis.

Treatment types

Nonsurgical treatment

Nonsurgical treatments for osteoarthritis include:

- Analgesics and pain relievers
- Anti-inflammatory medicines
- Cortisone injections
- Lubrication injections of hyaluronic acid derivatives to provide some cushioning for the joint
- Physical therapy
- Assistive devices such as a cane or walker, splints, braces and shoe inserts to help reduce the pain and discomfort

Surgery

If nonoperative treatments for osteoarthritis fail to provide substantial relief and there is a functional disability, then total joint replacement may be indicated.

- **Total joint replacement surgery**—Knee and hip joints are the most commonly replaced joints due to their weight-bearing function. During total knee or hip replacement surgery, your orthopedic surgeon resurfaces your joint by removing the diseased bone and cartilage. These surfaces are replaced with a metal and plastic implant, which mimics natural knee or hip motion and function. Total joint replacement surgery can help put an end to painful osteoarthritis in your knee or hip and enable you to resume a functional and active lifestyle.

