What Is Osteoarthritis?

Osteoarthritis (OA) is a type of arthritis that causes joint pain and impairment of function.

Although OA has commonly been attributed to the "wear and tear" of aging, it is now understood as a complex disease involving breakdown of cartilage between bones, bone remodeling, and joint inflammation. Although OA can involve any joint in the body, the joints most frequently affected are the hips, knees, feet, and hands. Osteoarthritis is the most common type of arthritis and affects an estimated 32 million people in the US and more than 240 million people worldwide.

Risk Factors for OA
The risk of OA increases markedly with increasing age and is exceedingly rare in individuals younger than 30 years. Female sex, obesity, previous joint injury (such as ankle fracture or ligament tear in the knee joint), joint anatomic abnormalities (such as when the hip socket is too shallow), and having family members affected by OA also increase the risk of developing OA.

Diagnosis of OA
Typical symptoms of OA include joint pain that increases with movement and is relieved by rest, and brief joint stiffness that develops after inactivity. On physical examination, individuals with OA may have joints that appear "knobby" due to remodeling of bone and cartilage. X-ray imaging of joints with OA may show joint space narrowing and bone spurs (osteoophytes). Blood work and other imaging studies are not needed to diagnose OA.

Treatment of OA
The main goal of OA treatment is to reduce symptoms and improve joint function. Important interventions include patient education about OA, weight loss, and physical therapy or a regular exercise program (including strengthening, cardiovascular, yoga, and/or tai chi) to help build muscle strength and reduce stress on joints. The combination of dietary modifications and exercise can lead to substantial weight loss that results in decreased joint pain and disability and improved function.

Common first medications used to treat joint pain due to OA are nonsteroidal anti-inflammatory drugs (NSAIDs), which can be applied directly to the skin (topically) or taken orally. Acetaminophen may be used in individuals without liver disease or heavy alcohol use as an alternative to NSAIDs, which may cause bleeding in the gastrointestinal tract or adversely affect kidney function. Narcotic pain medications other than tramadol are not as effective in treating joint pain and pose additional risks (such as constipation, falls, decreased breathing, and potential for drug dependence), so narcotics are not recommended for treatment of OA.

Injection of a steroid into a joint affected by OA may help decrease pain and swelling, although these benefits typically decrease within 3 months. Injection of hyaluronic acid into the joint space is sometimes used for treatment of OA, although evidence for its effectiveness is weak.

Patients with hip or knee OA who have persistent pain and loss of function despite the above treatments may benefit from joint replacement surgery. Approximately 90% of individuals who undergo total hip replacement and 80% who undergo a total knee replacement have little to no residual pain after recovering from these operations.

FOR MORE INFORMATION
Centers for Disease Control and Prevention
www.cdc.gov/arthritis/basics/osteoarthritis.htm