

Hip Osteoarthritis Description

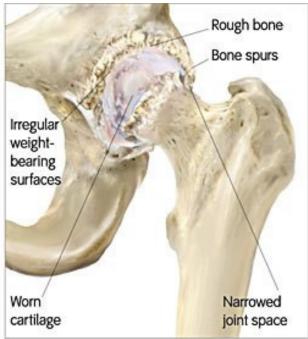
Dr. Zachary P. Arntson

The hip is one of the body's largest joints. It is a "ball-and-socket" joint. The socket is formed by the acetabulum, which is part of the large pelvis bone. The ball is the femoral head, which is the upper end of the femur (thighbone).

The bone surfaces of the ball and socket are covered with articular cartilage, a smooth, slippery substance that protects and cushions the bones and enables them to move easily.

In osteoarthritis, the cartilage in the hip joint gradually wears away over time. As the cartilage wears away, it becomes frayed and rough, and the protective joint space between the bones decreases. This can result in bone rubbing on bone. To make up for the lost cartilage, the damaged bones may start to grow outward and form bone spurs (osteophytes).





Osteoarthritis has no single specific cause, but there are certain factors that may make you more likely to develop the disease, including:

- Increasing age
- Family history of osteoarthritis
- Previous injury to the hip joint
- Obesity
- Improper formation of the hip joint at birth, a condition known as developmental dysplasia of the hip

Even if you do not have any of the risk factors listed above, you can still develop osteoarthritis.

SYMPTOMS:

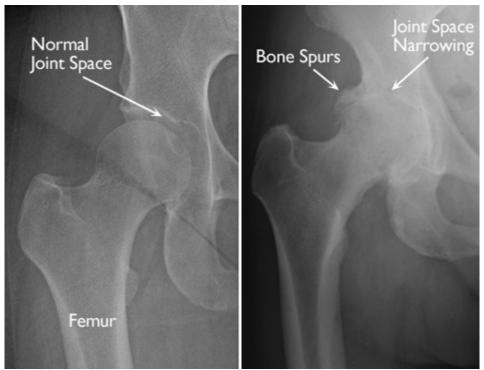
The most common symptom of hip osteoarthritis is pain around the hip joint. Usually, the pain develops slowly and worsens over time, although sudden onset is also possible. Pain and stiffness may be worse in the morning, or after sitting or resting for a while. Over time, painful symptoms may occur more frequently, including during rest or at night. Additional symptoms may include:

- Pain in your groin or thigh that radiates to your buttocks or your knee
- Pain that flares up with vigorous activity
- Stiffness in the hip joint that makes it difficult to walk or bend
- "Locking" or "sticking" of the joint, and a grinding noise (crepitus) during movement caused by loose fragments of cartilage and other tissue interfering with the smooth motion of the hip
- Decreased range of motion in the hip that affects the ability to walk and may cause a limp
- Increased joint pain with rainy weather

Doctor Examination

During your appointment, we will talk with you about your symptoms and medical history, conduct a physical examination, and possibly order diagnostic tests, such as x-rays.

X-rays. These imaging tests create detailed pictures of dense structures, like bones. X-rays of an arthritic hip may show a narrowing of the joint space, changes in the bone, and the formation of bone spurs (osteophytes).



Other imaging tests. Occasionally, a magnetic resonance imaging (MRI) scan, a computed tomography (CT) scan, or a bone scan may be needed to better determine the condition of the bone and soft tissues of your hip.

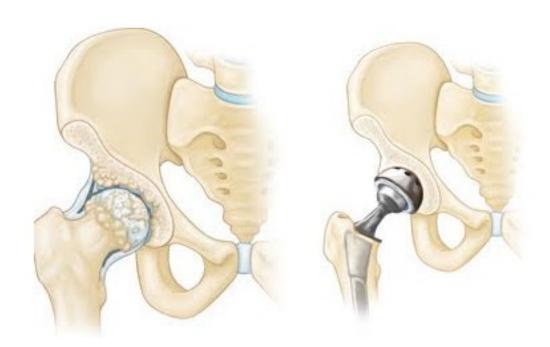
TREATMENT:

Although there is no cure for osteoarthritis, there are a number of treatment options that will help relieve pain and improve mobility.

As with other arthritic conditions, early treatment of osteoarthritis of the hip is nonsurgical. We may recommend a range of treatment options, such as lifestyle modifications, physical therapy, medications or injections. When this non-surgical treatment does not work anymore, then it may be time to consider a total hip replacement.

Surgical Treatment

• A picture below demonstrates removing the arthritic femoral head or "ball" and acetabulum or "socket" and replacing them with a total hip replacement



The overwhelming majority of total hip replacements are performed through what is called, a "Posterior approach" (through the back of the hip). Although this approach is adequate, it can have significant disadvantages, such as post-operative restrictions, slower recovery, and malposition of the components leading to higher dislocation rate.

Alternative approach to a total hip replacement is through a muscle sparing "Anterior Approach".

ANTERIOR APPROACH TOTAL HIP REPLACEMENT

The advantages to this approach are

- 1. Not cutting any muscles or tendons, instead working between the muscles to access the hip joint, minimizing tissue disruption
- 2. Smaller incision
- 3. Use of a high tech table and intra operative X-ray for precise positioning of the implants, which helps lower the dislocation risk.

- 4. Surgeon can check component positioning and leg lengths during the position
- 5. Fewer post-operative restrictions
- 6. Less tissue trauma and disruption can lead to less postoperative pain and faster recovery.

Below is an example of mine showing intra-operative x-rays with a custom made grid I use to confirm correct component positions and leg length.

