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# What is Arthritis and How to Avoid Joint Replacement!

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## ARTHRITIS

Arthritis is a condition of diseased cartilage (not bone). Cartilage covers the ends of all bones involving a joint. This cartilage coating allows the bones to glide over one another. When this surface coating starts to wear thin, or wear out—arthritis sets in. Unfortunately, cartilage is unique in that it cannot regenerate like bone, hair, skin, etc. Arthritis is a progressive degenerative joint disease with no current mechanism to reverse its damage.

**Symptoms** include achiness, stiffness, pain, limitation in motion, and sometimes "sensation of giving way or giving out." Hip arthritis typically manifests as groin pain as opposed to buttock pain.

**Causes** are genetics, overweight/overload, childhood diseases, lack of blood flow to the joint, inflammatory conditions such as rheumatoid arthritis, consequence from previous injury.

**Diagnoses** include X-rays, history and physical examination of the joint affected.

**Treatment** recommendations include weight loss, low impact exercising to include stretching and strengthening to achieve "balance" around the joint muscle/tendon/ligaments, medications such as anti-inflammatories, injections, braces, and finally surgery including joint replacement which does eliminate the arthritis.

### *Alternatives to Surgery*

New techniques in avoiding surgery and preserving the remaining cartilage have been a tremendous focus for physicians. Bracing, physical therapy, and injections have been used extensively in attempts to preserve function and decrease pain to avoid surgery. Injections include: anti-inflammatories, gel-like injections, and, more recently, different "stem cells" that can be utilized to "stimulate" healing. Acupuncture, soft tissue mobilization, physical therapy, and magnetic pulse therapy have also been explored with some benefits. When these modalities no longer provide lasting relief, cartilage grafting and realignment procedures can be considered prior to replacement. The timing of the many cartilage preserving techniques requires a long discussion of risks, benefits, and alternatives with your surgeon tailored to each individual's circumstances.

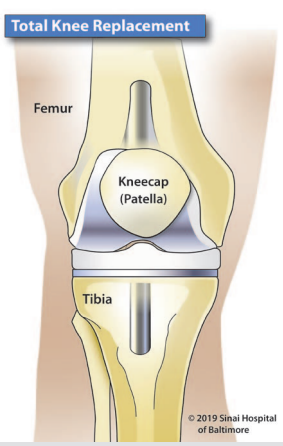
## SURGERIES

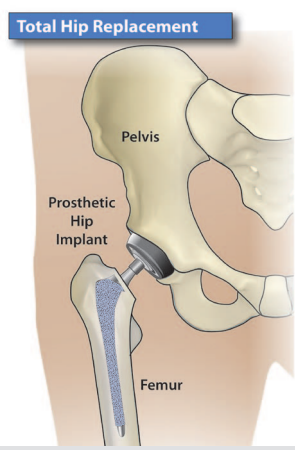
### *Candidates for Hip or Knee Replacement Surgery*

Hip or knee replacement is an elective surgery based on each individual patient's pain and limitations. While it can be indicated at any age, the average age is between 50-80 years old. Timing is based on the severity of the symptoms, such as pain limiting walking and bending, pain persisting even at rest, and when several conservative measures have been utilized. Surgery is typically recommended when the pain regularly limits activities of daily living.

## *Overview of Knee Replacement*

The knee joint is a hinge joint composed of three compartments between your thigh bone (femur) and shin bone (tibia) which includes the knee cap (patella) that glides over the area. One or all of these compartments can be replaced according to the damaged area(s). Partial or total knee replacement surgery removes the area (s) of cartilage damage and replaces it with a cap or implant. A total knee replacement, resurfaces all three compartments. The first knee replacement was performed in 1968, and remains one of the most successful and commonly performed procedures in surgery.




## *Overview of Total Hip Replacement*

The hip joint is a ball and socket joint with a femoral head ball that fits into a socket along the pelvis. Total hip replacement surgery removes the damaged ball and socket and replaces it with new implant surfaces that are smooth again. The first hip replacement was performed in 1960 and has become one the most successful operations in all of medicine.

## *Overview of Hip/Knee Replacement Surgery*

**Implants:** Various materials are used to make implants, including stainless steel, titanium, chrome, cobalt, ceramic and highly crossed linked polyethylene. Your surgeon will choose the implant that is best suited for your needs and anatomy, but most of the major manufacturers have very similar designs.

**Surgery:** The affected joint ends are resurfaced with a new coating/implant while preserving the surrounding ligaments and tendons. The entire surgery takes approximately 2 hours.

**Rehab:** The typical hospital stay is 1-2 days. The typical postoperative period involves a comprehensive rehab program for about 2 months afterwards.

**Outcomes:** Joint replacement has become one of the most successful surgeries in all of medicine, providing significant pain relief and restoring function again!

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