

# What is Arthritis?

Joints are areas in the body where two bones meet. In order to facilitate smooth, pain free motion of these joints, the bones are covered with a type of cartilage called “articular cartilage”. Unlike skin and other tissues in the body, we are not able to regenerate or make more cartilage if it breaks down or is injured.

Arthritis is a catchall term for the wearing down of cartilage. There are different types of arthritis like post-traumatic arthritis after an injury to the cartilage, rheumatoid where the body’s immune system attacks its own cartilage, osteoarthritis where the cartilage breaks down with time, amongst others.

Regardless of the cause, as cartilage wears down, joints function less smoothly. The underlying bone is rigid and rough and direct contact of two bones without cartilage can be uncomfortable. The body will try to compensate by increasing the amount of fluid in the joint (swelling or effusion), making extra reactive bone (bone spurs or osteophytes), as well as hardening (subchondral sclerosis) because of the added stress. Cartilage is waterproof, so as it wears down or develops cracks, joint fluid can leak into the bone causing a type of bone cyst (subchondral cysts). These advanced changes are all visible on x-rays. More subtle cartilage damage may only be visible on MRI.



While we have surgical options for small, focal injuries to cartilage, we have not developed a reliable way to replace or regenerate diffusely worn cartilage. Thus, we treat the symptoms of arthritis with anything we can to help relieve your pain and restore your function. This can include:

- Anti-inflammatory medicine like ibuprofen (Advil or Motrin), naproxen (Naprosyn or Aleve), etc. or medicine for the pain like Tylenol or Tramadol.
- Bracing – for comfort or more specialized bracing to gently re-align your knee to relieve pressure on one specific area
- Weight loss can provide less strain on the affected joint
- Activity modification – avoiding high impact activities that exacerbate the pain
- Assistive devices – canes, walkers, etc that can aid in taking pressure off the affected joint
- Injections – steroids, hyaluronic acid, platelet rich plasma, stem cells aimed at providing temporary relief of pain and inflammation (please see our injection handout for more information)

All of these treatments are designed to limit the pain and symptoms, allowing you to stay active and enjoy your life. None of these treatments can eliminate arthritis. Ultimately, when the pain and dysfunction become unbearable and your daily life is so affected that you cannot do the things you love, many joints can be surgically replaced. While joint replacement surgery (arthroplasty) is extremely effective, these new joints are made of man-made materials that do not last forever. For that reason, we will try everything we can to delay or completely avoid surgery.