

# PLS

**Title:** Joint Injections for Osteoarthritis

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**Plain Language Summary:**  
**Osteoarthritis of the Knee**

## **Introduction**

Osteoarthritis is a very common disease that can affect your joints. Normally a layer of smooth cartilage and fluid protects the bones from rubbing together. In osteoarthritis this layer of cartilage becomes very thin or disappears. Once the cartilage is gone it is gone forever. When this happens the bones are rubbing against other bones. This is what causes the pain. Also, rubbing bone on bone can lead to the bone making growths called bone spurs. When the bone spurs rub against bone it is very painful as well. Usually the pain is mild and becomes worse over a long period of time. It can be years before it is bad enough to affect daily activities.

## **Causes**

Osteoarthritis was originally thought to be due to many years of use. Now it is more clear that certain factors like genes, how the joints fit together, and physical forces on the joint all play a role in this disease. Sometimes, severe injury of a joint can make a patient more likely to get osteoarthritis in that joint.

This condition is often confused with rheumatoid arthritis. Rheumatoid arthritis is when your immune system attacks the joints. It can also lead to a lot of pain. But treatments for these two diseases are very different.

## **Treatment**

Osteoarthritis can be a very painful condition. This disease is progressive. This means it tends to get worse over time. However, there are many treatments that can make patients more functional. The first thing to is usually physical therapy. It can be helpful to strengthen the muscles around the joint. This takes the pressure off the joint. Next, medications can be used to help with the pain. When oral pain medications do not help any more patients can try injections. This is where the doctor injects medication directly into the joint. The benefit of injections is that the medicine stays mostly in the joint, so there are fewer side effects. There are two kinds of medications that can be injected into joints. The first one that came out was corticosteroids. More recently, hyaluronic acid injections have come out. They seem to be helpful too.

It can often be difficult to decide which injection to try first. Corticosteroids have been around a lot longer. This means that safety has been studied more and it is cheaper. Corticosteroids help by reducing the inflammation of the bone. It is the inflammation that makes bone spurs. Inflammation can also cause more pain. Many studies show corticosteroids are better than placebo for the short term (about 3 months).

Hyaluronic acid is a newer therapy. It is a substance already in your joints. But people with osteoarthritis have less of it. It provides a smoother surface for the bones. This

means they do not rub against each other as much. However, they are much more expensive than corticosteroids. Few studies compare hyaluronic acid to corticosteroid injections. A recent study that compares them showed no difference between them. Patients who had the hyaluronic acid showed just as much improvement in pain and function as corticosteroids. Because of the lower cost it is better to try corticosteroid injections first. This study also found that injections in general might be more effective in men than women. This may be studied more in the future and is not conclusive yet.

When injections are not enough surgery is the next step. The surgery to treat this condition is usually a total knee replacement.

It is important to talk to your doctor about which of these treatments can help you the most.

**Additional Resources:**

Information on Osteoarthritis from National Library of Medicine  
<http://www.nlm.nih.gov/medlineplus/osteoarthritis.html>

Handout on Osteoarthritis from National Institute of Arthritis and Musculoskeletal and Skin Diseases  
[http://www.niams.nih.gov/Health\\_Info/Osteoarthritis/default.asp](http://www.niams.nih.gov/Health_Info/Osteoarthritis/default.asp)

Osteoarthritis of the Knee from FamilyDoctor.org  
<http://familydoctor.org/online/famdocen/home/common/bone/616.printerview.html>

**Key Words:**

Osteoarthritis

Hyaluronic acid injections

Corticosteroid injections

Intraarticular injections

Please provide up to 5 key words that describe your topic.

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