



Hyaluronic Acid Injections For The Knee

What is hyaluronic acid?

Hyaluronic acid (also called hyaluronan) is a large molecule that is responsible for much of the lubricating properties of normal joint fluid. In essence, it makes joint fluid thick and slippery, helping joints to move smoothly with minimal friction or wear.

What happens to joints as they deteriorate?

The substance that lines the ends of the bones inside joints is called the articular cartilage. Sometimes from injury or just normal usage, this cartilage can wear down and become thin and irregular, which is called degenerative joint disease (DJD). When the cartilage wears away completely with raw bone exposed, this is called osteoarthritis or osteoarthritis (OA).

As the joint deteriorates, the concentration of hyaluronic acid (HA) and the size of the HA molecules decreases. This loss of the normal joint lubrication can lead to further joint deterioration, leading to joint inflammation and pain.

How do hyaluronic acid injections help?

Injecting HA into the knee can restore the normal viscosity and lubrication of the joint, protecting the joint cartilage from further deterioration. Also, these injections may decrease joint inflammation and pain. Hyaluronic acid injections are called viscosupplementation therapy.

Am I a candidate for HA injections?

The ideal patient has a painful knee joint with mild to moderate degeneration of the articular cartilage. Once the joint progresses to osteoarthritis, (i.e. loss of joint cartilage and exposed bone), HA injections generally do not help as much.

How are the injections given and where does the hyaluronic acid come from?

You receive either one injection or three weekly injections. The injections are performed in the office using a topical spray to minimize any discomfort. If there is excessive fluid in the joint, the extra fluid has to be removed before the injections begin. If there is severe inflammation, a steroid injection will be given first, before the HA injection. Hyaluronic acid comes from rooster combs. It is purified and sterilized for use in humans. The tradenames of hyaluronic acid are synvisc and hyalgan.

Are there side effects?

Redness can develop around the site of the injections. It usually resolves gradually and permanent discoloration is very unusual.

How well do the injections work?

1. It takes about a month from the last injection until maximal relief is achieved.
2. About 85-90% of patients report improvement.
3. Improvement lasts for up to 6-9 months, then the injections may need to be repeated.
4. HA injections work as well or better than regular use of non-steroidal anti-inflammatory drugs (NSAIDs), e.g. aspirin, ibuprofen.
5. HA injections may give longer relief than corticosteroid injections.