

## VISCOSUPPLEMENTATION HYALURONIC ACID INJECTIONS

Why Is Hyaluronic Acid (HA) Used: Currently hyaluronic acid (HA) injections are approved for the treatment of osteoarthritis of the knee in those who cannot get relief more conservative therapy, such as weight loss, reduced or modified activity, or analgesic medications. Joint fluid in patients with arthritis have a lower than normal concentration of hyaluronic acid, and thus, is very thin and watery. The goal is to restore this thick fluid lubricant. HA injections do this directly, and also by stimulating the body to produce more of its own HA. Uses for other joints and indications are currently being investigated. Since the FDA only approves it for the knee, your insurance company will likely not pay for the injection for another joint, and some may still not pay for it in the knee.

Hyaluronic acid injections do not have an immediate pain-relieving effect. These injections appear to be better for those with mild to moderate arthritis, and may be beneficial for delaying surgery.

**Description**: This is an injection of a gel-like substance (Hyaluronic Acid) into a joint to supplement the viscous properties of synovial fluid. The normal joint fluid contains naturally occurring HA. This helps make the joint fluid thick, like molasses and functions like a lubricant to enable bones to move smoothly over each other and as a shock absorber for joint loads. There are many HA preparations currently approved by the FDA in the US. Most of them are of varying chemical size and are made from Rooster Combs. One is genetically engineered from bacteria, Euflexxa.

## **Adverse Effects:**

- Not relieving pain
- Joint pain
- Joint infection
- Nerve damage (in injected into the nerve)
- Pseudoseptic reaction this is a severe increase in pain and swelling this has only been seen in the preparations made from Rooster Combs
- Allergic Reaction (rooster combs or eggs)
  - Other very uncommon risks include Rash, Hives, Itching, Fever, Nausea, Headache, Dizziness, Chills, Muscle cramps, Numbness, Swelling at the ankles, Malaise, Breathing difficulties, Flushing, Facial swelling



## **Pharmacology:**

The mechanism of action of hyaluronic acid is unclear. It does not have an immediate pain relieving effect. Over the course of time, generally weeks, there is a reduction in pain in the joint. There does appear to be some anti-inflammatory effects, which may, in turn, reduce pain. Further, there does seem to also be some direct pain relieving effect of hyaluronic acid. The injections also stimulate the body to produce more of its own hyaluronic acid.

Initially, these injections were given weekly for 3 to 5 weeks. Current products are also being recommended for single injection treatment. There does not seem to be a negative effect to repeated viscosupplementation injections, or series of injections.

## After the injection

After the injection, you may notice a local reaction, such as pain, warmth and slight swelling immediately after the shot. These symptoms do not last long, and you may want to apply an ice pack for 20 minutes at a time to help ease the discomfort. For the first 48 hours after the shot, you should avoid excessive weightbearing on the leg, such as jogging or heavy lifting.