

# Viscosupplementation Treatment for Arthritis

A sticky or squeaking hinge can be "cured" with a drop of oil, so it makes sense that a hinge joint, like the knee, would also benefit from a little lubrication. At least that's the premise behind one new form of treatment for arthritis of the knee.

The procedure, called viscosupplementation, injects a preparation of hyaluronic acid into the knee joint. Hyaluronic acid is a naturally occurring substance found in the synovial (joint) fluid. It acts as a lubricant to enable bones to move smoothly over each other and as a shock absorber for joint loads.

However, people with osteoarthritis ("wear-and-tear" arthritis) have a lower-than-normal concentration of hyaluronic acid in their joints. Viscosupplementation may be a therapeutic option for individuals with osteoarthritis of the knee.

## Treatment

The first line of treatment for osteoarthritis of the knee aims to relieve pain. Normally, pain relievers such as acetaminophen or nonsteroidal anti-inflammatory drugs (NSAIDs) (such as ibuprofen) are used, along with physical therapy, applications of a topical analgesic and injections of a corticosteroid. However, some people have a reaction to NSAIDs and these agents usually bring only temporary relief. When conservative measures fail, surgery, perhaps even to replace the joint, may be required.

Viscosupplementation has been shown to relieve pain in many patients who did not get relief from nonmedicinal measures or analgesic drugs. The technique has been used in Europe and Asia for several years, but the U.S. Food and Drug Administration did not approve it until 1997, and then only for treating osteoarthritis of the knee. Two preparations of hyaluronic acid are available—a natural product made from rooster combs, and an artificial one manufactured from bacterial cultures. If you are allergic to egg or poultry products, the manufactured product should be used.

If there is any swelling (effusion) in the knee, your physician will remove (aspirate) the excess fluids before injecting the hyaluronic acid. Usually, this can be done at the same time, with only one needle injected into the joint, although some doctors may prefer to use two separate syringes. Depending on the product used, you will receive 3 to 5 shots over several weeks.

## Effects of viscosupplementation

### Immediate effects

- Hyaluronic acid does not have an immediate pain-relieving effect.
- You may notice a local reaction, such as pain, warmth, and slight swelling immediately after the shot. These symptoms generally do not last long. You may want to apply an ice pack to help ease them.
- For the first 48 hours after the shot, you should avoid excessive weight bearing on the leg, such as standing for long periods, jogging or heavy lifting.

### Longer-Term Effect

- Over the course of the injections, you may notice that you have less pain in your knee.
- Hyaluronic acid does seem to have anti-inflammatory and pain-relieving properties. The injections may also stimulate the body to produce more of its own hyaluronic acid.
- Effects may last for several months.

Viscosupplementation doesn't work for everyone. There's no proof that it will reverse or delay the progress of osteoarthritis. In addition, it's very expensive and clinical trials have not yet proven that it is cost-effective. If your current course of medication and treatment is working, stay with it. However, if your arthritis isn't responding well, or if you're trying to delay an inevitable surgery, you may wish to discuss this option with your orthopaedic surgeon.

**Rare Side Effects**

Rare cases of knee joint infections have been reported after injections

Rashes, hives and itching have been seen in patients after injections

Other less common side effects have been: muscle pain/cramps, flushing and/or swelling of your face, fast heartbeat, nausea, dizziness, fever, chills, headache, difficulty breathing, swelling in your arms and/or legs, prickly feeling in your skin, and in rare cases a low number of platelets in the blood.

If any of the above symptoms or signs appears after you are given the injection, you should call your physician.