



Joint Injections (Joint Aspirations)

Fast Facts

- Joint aspiration is used in a physician office to take out the joint fluid from a swelling joint.
- Joint injection is used to put the medications into the joint.
- Aspirated joint fluid can help your physician diagnose the cause of the swelling joint.
- Joint injection with medication can provide relief for the pain and swelling in the joint.
- The risks for joint aspirations and injections are minimal. Infection, bleeding, and other major risks are rare.

Joint injections or aspirations (taking fluid out of a joint) are performed in an office or hospital setting, often with a cold spray or other local anesthesia. After the skin surface is thoroughly cleaned, the joint is entered with a needle attached to a syringe. At this point, either joint fluid can be obtained (aspirated) and used for appropriate laboratory testing or medications can be injected into the joint space. This technique also applies to injections into a bursa or tendon sheath to treat bursitis and tendonitis, respectively.

Commonly injected joints include the knee, shoulder, ankle, elbow, wrist, base of the thumb, and small joints of the hand. Some small joints may also be more easily aspirated or injected with aid of ultrasound or fluoroscopy for guidance.

+ What benefit is derived from a joint aspiration or joint injection?

Joint aspiration usually is done for help with diagnosis or treatment. Fluid obtained from a joint aspiration can include a cell count (the number of white or red blood cells), crystal analysis (to confirm the presence of gout or infection is present inside the joint). Drainage of a large joint effusion can provide pain relief and improved mobility.

Joint injections may decrease the accumulation of fluid and cells in the joint and may temporarily decrease pain and swelling, such as rheumatoid arthritis, psoriatic arthritis, gout, tendonitis, bursitis and, osteoarthritis.

+ What usually is injected into the joint space?

Corticosteroids (such as methylprednisolone and triamcinolone formulated to stay primarily in the joint) frequently accumulate in the joint space, which is responsible for producing inflammation and pain within the joint space. Although corticosteroid use is less clear, hyaluronic acids (Hyalgan®, Synvisc®, Orthovisc®) are viscous substances that may relieve the pain. Modes of action are not clear.

+ What are the risks of joint injections and aspirations?

Occasional side effects include allergic reactions to the medicines injected into joints, or the disinfectant used for injections and occur less than 1 time per 15,000 corticosteroid injections. Another uncommon complication is infection after corticosteroid or hyaluronic acid injection - which occurs in approximately 1 out of 50 patients and usually subsides after too-frequent corticosteroid injections.

Generally, repeated and numerous injections into the same joint/site should be discouraged. Other complications include local fat atrophy (thinning of the skin) at the injection site, and rupture of a tendon located in the path of the injection.

Joint injections also should not be given if an infection is present inside or around a joint and if someone has a bleeding disorder. If an infection is suspected, aspirating the joint to gather cultures is essential.

Reviewed May 2017 by Ziv Paz, MD and the American College of Rheumatology Committee on Communications and Marketing.

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