



CORTISONE (CORTICOSTEROID) INJECTIONS

"Cortisone" is the common term applied to a group of medications made from hormones called corticosteroids. These hormones are naturally made by the adrenal glands and can affect the function of almost every cell in the body. They are used in orthopedics for their ability to reduce inflammation.

Corticosteroids can be given orally (for example, Prednisone is usually given in a pre-packaged dose referred to as a Medrol Dosepak), or as muscular injections to provide "total body" coverage. Injections can also be made into specific areas of inflammation like joints, nerves, and tendons to block the inflammatory response and are often more effective because they act directly on the inflamed tissue.

Most types of Cortisone used in our office are designed to stay at the injection site. Very little of the drug is absorbed into the general system to affect the blood sugar or cause other problems. However, the amount that is absorbed relates to the amount that is injected. Therefore, injecting more than one large joint or three small joints, for example, is usually avoided during the same office visit.

There are also some other general precautions. If Cortisone is injected too close to the overlying skin, it can cause scarring of the fat layer that lies beneath the skin, and a "dimple" may result. It can also cause loss of color over a small area of skin. This is called "hypopigmentation," and is more important for individuals with darker skin tones.

Cortisone also inhibits the body's local defenses against infection. It can make an infection worse, or even cause an infection if the needle is inserted through an area like a pimple or rash.

The body's natural healing response to tissue injury is inflammation. Cortisone, by stopping this response, may delay or prevent normal healing. It is therefore not used soon after an injury.

Multiple injections into the same area of the body can weaken or damage the tissue in that area. As a result, it could make arthritis worse in a joint or make a tendon rupture. Therefore, more than two or three Cortisone injections in the same site within a year are usually avoided. Injections into separate sites do not cause these additive problems.

continued on back

Cortisone (Corticosteroid) Injections, *continued from front*

Cortisone does not usually "cure" problems, although this is a possibility. In orthopedics, it is generally used in addition to other therapies like splinting, physical therapy, etc. It can also be helpful for diagnosing the source of a problem. For example, if a tendon that seems to be the source of a problem gets pain relief following an injection, even if for a short time, this helps to confirm the diagnosis. Another example would be an individual who has knee pain that might come from a torn meniscus as well as arthritis. A response of 50% relief for one or two days would point to a torn cartilage. A response of 80-90% relief for one or two weeks would suggest that arthritis is probably the source of the pain.

The benefit of the injection depends on the problem. In general, Cortisone helps large, weight-bearing joints, like the hip and knee, less than small joints, like the hand or foot. Also, benefits to joints with rheumatoid or other autoimmune arthritis can be much greater than for joints with osteoarthritis.

Injection of tendon sheaths has varying benefits. For "trigger fingers," up to 95% of the patients have satisfactory results, but wrist tendonitis might only give 50-60% of the patients improvement.

Injections into a bursa (a pouch of fluid that aids movement in or around a joint), such as in the hip or shoulder area, can be very helpful for quite a while.

Injections for carpal tunnel syndrome do not seem to provide long-term relief of symptoms. Usually, injections are not given unless EMG/NCV studies show a fairly mild case and the patient wants to avoid surgery.

Injections around the nerves of the spinal cord provide significant relief, particularly for people who have narrowing of the space around these nerves.

Results of ligament injections vary, but can be of real benefit in chronic overuse syndrome (such as lateral epicondylitis).

Even though benefits vary greatly between different applications and between different patients, Cortisone is often helpful when used with other treatments. As a result, it is a common treatment in a busy orthopedic/sports medicine practice.

Hopefully, this information has been interesting and helpful to you. As with any general information, some of it may not apply to your case and it is not intended to take the place of an orthopedic evaluation and personalized treatment plan. If you still have questions, please do not hesitate to discuss them with Dr. Nickel.

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