

## *Orthopaedic Connection*

### **Injections and Corticosteroids, How Much Do You Know?**

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#### *Transforming patient information into patient understanding.*

The sentence you read just above was never more true in that my patients have information about “cortisone shots”, but as a rule have very little understanding.

Perhaps I can help clear up some of the misconceptions about steroids, at least as they are used in my practice.

#### **Their Indication**

Stated in one sentence, I use them to relieve pain and inflammation and to improve the person’s function.

#### **What Are Their Names?**

I am giving you only their “first” names to make it less confusing, O.K. There are innumerable more steroid preparations, but these are the ones that I use frequently.

Methylprednisolone

Triamcinolone

Betamethasone

Dexamethasone

Their potency and duration of action and response vary somewhat, but you really don’t need to know all that unless your Ph.D. is in Biochemistry! However, it is important that I know and I assure you that I do!

#### **How Do They Work?**

Hmm, where to start?

- Corticosteroids decrease initial events in the inflammation process
- They are catabolic, that is they block glucose uptake in tissues and cause protein breakdown
- They decrease new protein formation
- This decrease is in muscle, skin, bone, connective tissue and lymphoid tissue (T cells).

#### **How I Use Them**

I’d say 99% of my use of corticosteroids is in the injectable form. The doses I use are not proportional to the oral dose. The reason is due to absorption by the tissues and the synovial lining of joints and how much gets out into the body. Internists and Family Physicians use these medications orally far more than I do as an Orthopaedic Surgeon.

#### **Indications For Use**

- Rheumatoid Arthritis – Used to control rheumatoid inflammation in joints especially in knees, elbows, hands and finger joints.
- Osteoarthritis – It is less effective than in rheumatoid arthritis. Cortisone is most often used in the knee joint and sometimes the hands.
- Gout(Crystal Arthritis) – Very helpful in patients with gout or pseudogout injected into the joint.

- Bursitis – I do a lot of injections for bursitis in the hip, shoulder and elbow. In the case of the hip I am injecting the bursa area at the side of the hip not into the joint. It is an important difference.
- Tenosynovitis – Inflammation around the tendons of the hands, wrists, feet and ankles is very common. Injections in these areas are used very cautiously, because it carries the risk of weakening the tendon you are trying to help and it can rupture. Gulp!
- Carpal Tunnel – Sometimes, but not often. Symptoms usually return and the nerve is very close and nerves don't like to be touched by the injecting needle!
- Ganglions – I rarely inject them because you don't get rid of the tissue capsule and the swelling (jelly) returns.

### **How Dr. H. Injects**

I can't speak for everyone, but this is how I do it.

I indent the skin area with a small plastic circle. Prep the skin with Betadine. I anesthetize the skin with a local anesthetic thru a small needle and wait. Then I inject the steroid, mixing it with local anesthetic prior to the injection. I apply a sterile dressing and ask the patient to apply ice if needed and relatively rest the part for about 24 hours.

### **What Else?**

- Temporary increase in blood sugar
- Soreness is usual in area injected for 24 – 48 hours (apply ice)
- Loss of underlying fatty tissue and skin pigment (rare) near the area injected
- Post injection infection (extremely rare)

In closing I will tell you that injections are often used in my practice and can be valuable in decreasing pain and increasing function.

Injections are only given if my patient agrees and is informed about it. I never “talk anyone into a shot”. Lots of folks have strong opinions about injections and refuse. Perfectly O.K. with me. I try to do something else for them.

Hopefully you understand more about what anti-inflammatory injections can and cannot do. It would be hard to practice Orthopaedics as I do without them. Thanks for reading! See you next week.

### **Gratiot County Herald Archive and Office Website**

I hope what you have read has raised questions. No problem.

Please log onto [www.orthopodsurgeon.com](http://www.orthopodsurgeon.com). It has a huge amount of musculoskeletal information in the Website and the Archive of all previous GCH articles.

Check it out and be amazed what you can learn.

Good health, good life, all the best to you. Be well.

Dr. Haverbush