WHAT IS CORTISONE?

Steroids, also known as corticosteroids or cortisone, are a class of medication that are used to treat inflammation that is often associated with pain and/or organ malfunction.

You might have heard of steroids as a treatment for asthma in a form of inhaler or steroid pills that are sometimes used to treat inflammation in the lungs or bowels.

Intravenous steroids are used to treat allergic reactions. In this clinic we use them as an injection to target areas of inflammation in the body that is associated with pain in the joints, around tendons or around "irritated" nerves.

We use preparations that stay in the area and provide relief longer then if taken as a pill. It is



also thought to have less side-effects.

WHAT ARE THE ALTERNATIVES?

Surgery

Anti-inflammatory drug therapy (such as Ibuprofen, naproxen, etc.)

PRP (Platelet Rich Plasma)

Prolotherapy

Physiotherapy (In conjunction with other therapies)

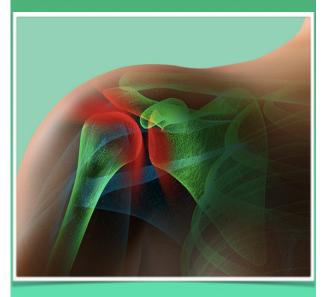
If you would like further information regarding the sources of this pamphlet please ask your doctor.

If you require further information about risks or complications, please discuss with the doctors in clinic or



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CORTISONE



This pamphlet contains the following information:

General Background Information

What to expect

Preparation

Side Effects & Complications



WHAT IS CORTISONE?

- At ORI, we mostly use the steroids triamcinalone acetate (Kenalog), methylprenisolone (Depo-Medrol) or dexamethasone (Decadron). The usual maximum daily dose is 80mg of Kenalog, or Depo-Medrol, or 10mg of Decadron. The annual maximum dose is suggested to be about 600mg of Kenalog, or 100mg of Decadron in order to reduce the risk of osteoporosis and other side effects.
- Most commonly, cortisone is injectionsed into joints including the hip, knee, shoulder, spine, hands, back, and feet. Cortisone reduces inflammation (swelling) in and around the joint. Cortisone can also be injected into bursa (fluid-filled sacs that act as cushions between joints, tendons, and bones).

HOW FREQUENTLY CAN I RECEIVE CORTISONE INJECTIONS?

The truth is that nobody really knows exactly as everyone is built differently, however there is some agreement among experts of the following:

- We try to limit the use of steroids injected in large joints (shoulder, knee, hip) to 2-3x/year as there is some evidence they harm the cartilage.
- For smaller joints, it is suggested to wait at least 6 weeks and to try keep to less than 3-4x/year Some experts suggest that epidural injections should only be offered 3- 4 times per year, others suggest no more than one to two months- there is much disagreement. Everyone is different with unique needs and goals. You may need more frequent injections early on, then fewer later.
- If your arthritis is mild to moderate it is advisable to use alternative treatments: hyaluronic acid, dextrose prolotherapy or platelet rich plasma (PRP).
- If your arthritis is severe, and steroid injections last less than 6 months, you should consider a joint

HOW FREQUENTLY CAN I RECEIVE CORTISONE INJECTIONS? (continued)

replacement or if surgery is not possible, destruction of the nerves that sense pain (ablation therapy) - but that is another discussion.

- These recommendations are only guidelines and everybody's situation is different. Some people may require more frequent injections than others depending on their circumstances and the risk versus benefits of the treatment.
- Our general principle is to use the least amount of cortisone as infrequently as possible in order to maximize functioning and minimize suffering with minimal risk and maximum benefit.

HOW LONG WILL IT TAKE TO FEEL THE EFFECT?

It can take up to 7 days for a cortisone injection to begin working in the body. Generally, you will notice a difference within 2-3 days after the procedure. The effects of the injection could last anywhere from 2 weeks to 1-2 months, but sometimes longer.

POST PROCEDURE

- If the injection was directed into a joint, you are advised to rest that body part for 1 to 2 days, or at least avoid heavy exercise.
- Patients who have had injections with a local anesthetic will experience a degree of relief immediately or within a few minutes, but this will wear off within several hours.
- Steroid injections do not provide a permanent cure, however the relief from injections may last from several weeks to several months. This works through decreasing inflammation in the affected area and may allow the body to work on healing.

POST PROCEDURE (continued)

- The goal of using cortisone is to decrease pain so that the patient can participate in a strengthening program which is usually done with a skilled physical therapist. This strengthening of the muscles around the joints results in more stability and takes pressure off of them resulting in improved function and decreased pain more than injections alone.
- Unfortunately, in many people the healing is incomplete or difficult, and pain may return, requiring repeat injections.

WHAT ARE THE POSSIBLE RISKS OR COMPLICATIONS OF THIS PROCEDURE?

As with all procedures there are risks. These are <u>rare</u>, but you should be aware of them before initiating treatment. The temporary side effects may include:

- Flushing of the face (Temporary 1-2 days; 5%)
- Skin discolouration or dimpling (in shallow injections)
- Mood changes, such as insomnia (Temporary 1-2 days)
- A temporary increase in inflammation and pain at the joint or site of the injection (up to 48h called steroid flare)
- Temporary increased blood sugar in patients with diabetes
- Temporary increase in blood pressure
- Temporary weakened immunity
 If you are having long-term cortisone injections, side effects may include:
- Thinning of the tendons and/or bones
- Cartilage damage
- Bleeding, swelling and/or bruising

As with any injection, there is a <u>very low</u> potential for infection at the injection site.

WHEN TO GO TO THE EMERGENCY:

- Fever
- Severe Pain, swelling, or redness
- Allergic reaction