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## Cortisone Injections

### What is cortisone?

Cortisone is a synthetic form of a Cortisol, a natural hormone your body produces. Cortisol is also called the “coping hormone” because it increases during times of stress and assists with regulating the immune system and energy systems to cope with the demands of life.

Cortisone is a potent anti-inflammatory and tends to be useful to treat problems related to excessive inflammation. However, the important thing to understand about cortisone is that it is CATABOLIC. This is the opposite of anabolic, meaning it tends to shrink everything down. It shrinks down inflammation- and this is good- but is also shrinks down all the other good stuff that goes to an injured area to assist healing. The first study to demonstrate the potential harmful effects was published by an Australian physio in 2000. Bisset (2006) showed that patients who were treated with a cortisone injection for tennis elbow had worse results than the patients who had no treatment (a wait and see approach).(1)

Because of this cortisone has a bad reputation for the treatment of chronic injuries, since this theoretical catabolic effect has now actually been shown to delay and worsen recovery.(2-4)

It still has a role for acute injuries where the inflammation is excessive, or in chronic injuries where the patient is willing to have short-term benefit with the knowledge that the problem is likely to return (e.g. going on an overseas holiday).

### How long does it take to work?

Cortisone takes between 3-10 days to have its effect, because it gets inside cells and changes the way they express their genes and make proteins. Hence the messages take time to be realised.

### How long does cortisone last?

If the underlying issue is not addressed cortisone is not effective in the long-term. It should be used to complement an overall management plan, and often is helpful in facilitating rehab exercises by reducing pain.

When should I consider having a cortisone injection?

You should avoid having a cortisone injection into a chronic tendon injury like tennis elbow or plantar fasciitis.(3,5) There are better, less harmful options to treat these.

**Where there is a lot of inflammation and swelling, cortisone is helpful:**

- Simple ankle sprains with lots of swelling
- The fat pad of the knee
- Inflamed bursa (sacs of lubricating fluid)- knee, elbow or elsewhere.
- Frozen or pinching (impinged) shoulder (6)
- Carpal tunnel syndrome (7)
- Nerve roots in the back (for “sciatica”) (8)

**What are the risks and what should I expect after a cortisone injection?**

The risks of cortisone injection are the same as for any injection into a joint- namely- infection and bleeding. These are in the order of 1 in 80,000 chance of occurring. With ultrasound guidance and sterile technique these risks are probably lower. After a cortisone injection and once the local anaesthetic wears off (2-4 hours) there may be a temporary flare in pain for the first 24-48 hours, and this usually responds well to ice and rest. You should plan to rest the injected area for 5-7 days (strict for 1-2 days) following the injection. Depending on the site of injection, this rest may involve getting driven to and from your appointment, wearing a protective sling, boot or other device.

## References:

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