Patient's guide to steroid injection

Steroid injections are commonly performed for joint or soft tissue related pain. This leaflet attempts to answer questions commonly asked by patients about steroid injections.

How do steroid injections work?

The mechanism of action of these injections is complex. Steroids reduce the body's inflammatory and immune response at several levels. The net effect is reduction in pain and inflammation at the injection site.

What are the indications of corticosteroid injections?

Corticosteroid injections play an important role in the management of various musculoskeletal conditions. Common indications include arthritis of a joint, inflammation around nerve (e.g. carpal tunnel syndrome, Morton's neuroma) or inflammation around a tendon (tendinopathy, tenosynovitis or tendonitis). These injections can result in long, or short term pain relief. In some conditions such as plantar fasciitis (inflammation of a band of tissue on the sole of the foot) they provide a pain-free window for rehabilitation.

What are the contraindications of corticosteroid injections?

Steroid injections should not be administered in the presence of:

- Allergy or intolerance to drug
- Overlying skin infection or broken skin
- Fracture (a break in the bone)
- Septic arthritis (infection of a joint)
- Prosthetic joint (e.g. knee or hip replacement)
- Unstable coagulopathy (bleeding disorder)

Steroid injections should be avoided in patients who are waiting for a Joint replacement as this might increase the risk of infection post surgery.

What equipment is needed for corticosteroid injection?

Although many corticosteroid injections can be performed without specialist

equipment, image guidance (X-rays or ultrasound) may be necessary for smaller joints in the hands and feet, deep structure (e.g. hip joint) and some soft tissue injections (particularly if in close proximity to tendons, nerves or blood vessels).

Is the injection painful?

In most cases the injection will cause some discomfort or pain. Usually local anesthetic is used to reduce the pain associated with steroid injection. The local anesthetic is either mixed with the steroid injection or given just before the injection. You can expect some numbness following injection and this can last for few hours depending on the local anaesthetic used.

What are the risks and side effects of a steroid injection?

Most steroid injections are performed with no complications, but, like all medications and procedures, there are potential risks. In about 10% cases the steroid can cause an increase in pain for the first day or two after injection, a so-called 'steroid flare'. This usually settles with time, and simple painkillers such as paracetamol can help. There is a small risk of infection with a steroid injection. If the joint or skin becomes hot, red or swollen, or you feel feverish and unwell you should seek help from your doctor or local hospital. The injection can result in bleeding. This risk is increased if you are on blood thinning medication. Steroid injections can cause thinning and color changes of the skin around the site that has been injected. More general side effects such as mood changes, sleep disturbance and facial flushing can also occur temporarily. Diabetic patients can expect to experience a rise in blood sugar levels after steroid injections.

What I can and can't do after a steroid injection?

Usually your doctor will advise you on this specifically depending on why the injection has been given. As local anaesthetic is often used, it is safest to avoid driving until this has worn off completely. Steroid injection can weaken a tendon or ligament leading to rupture. You should avoid strenuous exercise, heavy lifting or running for 2 weeks after an injection.

How often can a steroid injection be performed?

There is no hard and fast rule about this. General belief is that too many injections may potentially weaken the soft tissue structures including tendons and ligaments or increase the risk of infection. It has been shown that repeated injections can become ineffective over a period of time. In general, steroid injections should not be repeated for 3 months.

Do all patients respond to corticosteroid injections?

The degree and duration of pain relief following corticosteroid injection is unpredictable. There is some evidence that patients with early arthritis benefit more and for a longer duration compared to those with more severe arthritis. In general, if a patient is going to respond to a steroid injection, they tend to respond after the first injection. Patients who have gained no symptom relief or functional benefit from two injections should probably not continue with repeat injections because the likelihood of improvement is small.

What is the role of pain killers and anti inflammatory medicines after steroid injection?

Depending on the indication, there are a number of additional treatments which can complement the effect of steroid injection. For chronic conditions such as arthritis, many patients may take regular analgesia such as paracetamol and non-steroidal anti-inflammatory drugs (NSAIDs). These should be continued following steroid injection. Immediately after the procedure they help to control pain after the local anaesthetic effects wear off. They also help in managing symptoms in case of steroid flare. Similarly, for patients receiving treatment for inflammatory conditions such as rheumatoid arthritis, administration of disease modifying anti rheumatic drugs (DMARDs) should not be stopped.

What is the role of physiotherapy and when can it be started following steroid injection?

For many soft tissue presentations, corticosteroid injections are themselves adjuncts to other treatment modalities. Physiotherapy is the mainstay of initial management for a number of conditions (e.g. plantar fasciitis, tendinopathies, adhesive capsulitis of shoulder). Steroid injections are administered with the primary aim of reducing pain and inflammation sufficiently to allow active participation with stretching and strengthening exercises under the supervision of physiotherapists. In most cases physiotherapy can be started 1-2 weeks following steroid injection.

If you have any further questions about steroid injections that you feel has not been answered, be sure to ask your doctor to answer them before proceeding.