



Ultrasound-guided corticosteroid injections into joints or soft tissues

The aim of this information sheet is to help answer some of the questions you may have about having a corticosteroid injection. It explains the benefits, risks and alternatives of the procedure as well as what you can expect when you come to hospital. If you have any further questions or concerns, please speak to your specialist.

What is an ultrasound scan?

An ultrasound machine sends high frequency sound waves (ultrasound) into the body via a handheld probe placed on the skin. Lubricating jelly is placed on the end of the probe to ensure good skin contact. The probe detects the sound that is bounced back from different structures in the body and produces an image on a monitor. The image produced provides real time pictures so body structures and movement can be assessed. An ultrasound scan can detect needles inserted into the body and therefore can be used to guide needles to specific positions.

What is a corticosteroid injection and what are the benefits of having one?

Corticosteroids are a group of medicines that reduce inflammation, and therefore can reduce swelling and pain caused by inflammation. Corticosteroids can be used to treat a range of problems such as joint pain or tendon inflammation. Common steroids given are hydrocortisone, triamcinolone and methylprednisolone. These are used with local anaesthetic, which will temporarily numb the area affected. In some cases, a corticosteroid injection can aid in diagnosing your condition if it is not clear which is the particular area that is causing your pain.

What are the risks?

Rare complications of the injection include:

- Infection (occurs in approximately 1 in 10,000 procedures). If the area injected becomes red, hot and swollen, and/or you feel feverish, it is important to seek medical advice immediately.
- Bleeding into a joint or soft tissue. This is usually only a concern for people taking warfarin or similar anticoagulation (blood-thinning medicine).
- Allergic reaction to the local anaesthetic.
- When the area around a tendon or ligament has been injected, there is an extremely low risk of tendon rupture/tear. This most likely occurs due to overuse after the injection of an already inflamed/worn out tendon. The doctor performing the injection will assess the state of the tendon using the ultrasound scan before deciding whether to proceed with the injection.

What are the side effects?

Occasional side effects of a corticosteroid injection include:

- A temporary increase in pain for 24-48 hours after the injection (called a 'steroid flare'). If you experience a worsening in pain, it is advisable to take over the counter painkillers (such as paracetamol or ibuprofen) to relieve your discomfort. Always follow the instructions on the packaging and avoid medication you are allergic to. Discuss with your pharmacist if you are unsure if you can take or are on any other medicines.
- Mild facial flushing, which may last for a few hours.
- Menstrual cycle alteration.
- Loss of fat at the injection site, which may cause dimpling in the skin and may be permanent.
- Paler skin at the injection site, which may be permanent.
- Diabetic patients may find their blood sugar levels rise for a few days after the injection.
- Bruising may appear at the injection site.

Please bear in mind that your doctor has recommended you for this procedure because he/she believes that the potential benefits of the injection outweigh any potential complications. If you have any questions or concerns, please do not hesitate to speak with your doctor.

Tell your doctor before having the injection if you:

- Have any allergies to any medicines or their additives (excipients)
- Are taking anticoagulants (blood thinners) such as warfarin, heparin, dalteparin, enoxaparin, apixaban, dabigatran, rivaroxaban or edoxaban
- Are taking antiplatelets such as aspirin, clopidogrel or ticagrelor
- Are taking immunosuppressants or antiretrovirals
- Are taking a course of antibiotics or have recently completed a course of antibiotics
- Have diabetes
- Have had surgery or are about to have surgery in the affected area
- Are pregnant or breastfeeding
- Are feeling unwell
- Do not want the injection or no longer have symptoms.

Are there any alternatives?

Alternatives to the injection include lifestyle changes, physiotherapy and oral pain-relieving medication. Surgery may be another option, which would need to be discussed with your specialist.

What happens during the procedure?

The procedure will be performed by a specialist doctor trained in performing image-guided procedures. They will have explained the benefits and risks of having the injection and will answer any further questions you may have. You will be positioned on the ultrasound couch. The specialist will perform an ultrasound to identify the area requiring an injection. The skin is cleaned with a sterile solution. Using the ultrasound probe, the needle is guided gently to the affected area and the medication is injected. The needle is removed, and a plaster or dressing is applied. The procedure usually takes 10 to 15 minutes.

Will you feel any pain?

The injection of corticosteroid and local anaesthetic will involve a small needle and will be similar to a blood test, if the area is very inflamed there may be more discomfort associated. You should tell the specialist if you are finding the discomfort difficult to tolerate.

The injection may cause stinging briefly before the area becomes numb. There may be a pressure sensation or tightness for injections into joints.

What happens after the procedure?

Immediately after steroid injection, you may feel that your pain has gone or is significantly reduced. This is due to the local anaesthetic and the effect will last for a few hours. The steroid usually starts to work in three to four days but may take longer. The effect of the steroid injection varies from person to person, and a few people may not experience any benefit. Symptoms can be relieved for a few weeks to a few months or, in some cases, resolve the condition permanently.

What do you need to do after you go home?

- You are advised to rest after your injection for 24 hours.
- If you are having other medical treatment or dental procedures within six weeks, you should tell the clinician treating you that you have received a corticosteroid injection.

Will you have a follow-up appointment?

You may be asked to attend a follow-up appointment with your specialist six to eight weeks after your injection to check your progress.

Coronavirus (COVID-19) and joint and soft tissue steroid injections

You may be concerned about coronavirus. We are still learning about this new disease and the way it affects patients who are given some of our drugs.

At the moment there is limited evidence available on the use of steroid injections during the coronavirus pandemic.

There is a **theoretical** risk of a steroid injection making a patient more vulnerable to: getting it, having it longer, and experiencing increased complications. This means that it could be possible but hasn't been scientifically proven. So, we will only use steroid injections when considered absolutely necessary by your doctor, and when other, safer, options have been tried. We understand that you may be in considerable pain and discomfort. If this is the case, the potential benefits of a steroid injection may outweigh the potential risks.

If you are at higher risk than others, we may suggest delaying the procedure or taking extra precautions, such as self-isolation, on a case-by-case basis.

Any risk factors will be reviewed by the specialist performing the injection who will check that it is safe to proceed with an injection, after this you may be advised to self-isolate before and/or after the injection if you have other medical conditions.

You should not come in if you develop or experience a high fever (more than 37.8C), a persistent cough, or loss of taste or smell. You should not attend if you have recent close contact with a known positive case of coronavirus.

Coronavirus vaccine and steroid injections

The coronavirus vaccine consists of 2 doses that may be given 3-4 months apart.

There is a theoretical risk that steroids may reduce the immune response that is stimulated by vaccines which potentially means the degree of protection is reduced.

Therefore, we advise not to have a steroid injection on the same day as a dose of the vaccine and you should avoid having a steroid injection for at least 2 weeks after a dose of the vaccine.

If you are planning on having the coronavirus vaccine we advise not to delay being vaccinated whilst waiting for a steroid injection. When you are booking an appointment, please inform the staff if you are planning to have or have already received the coronavirus vaccine. We will schedule the steroid injection to accommodate your vaccine date if necessary.