



## **Ultrasound guided ganglion cyst aspiration and steroid injection Patient information leaflet**

### **What is a ganglion cyst?**

Ganglion cysts are thin-walled fluid-filled sacs most commonly seen around the wrist joint but they can occur in any part of the body. They are usually seen close to joints or tendons as they usually arise from the joint or the tendon sheath (the covering of the tendon). The exact cause is not certain but they are thought to be related to degenerative changes to the joint or tendon resulting in increase in fluid production which can result in these ganglion cysts. The fluid is usually thick and jelly-like.

### **What are the symptoms of a ganglion cyst?**

- A ganglion cyst usually results in a lump at the wrist or the foot. The lump can be hard and can change in size or disappear.
- If the ganglion cyst is large enough, it can cause pressure upon any adjacent structures. It can result in pain or numbness if it is causing pressure upon a nerve within the wrist.

### **What is ultrasound guided ganglion cyst aspiration/steroid injection**

Ganglion cysts themselves are harmless. They can cause pain or discomfort depending on their location. Treatment is not usually indicated unless the cyst is causing symptoms or the patient is concerned about the appearance.

Aspiration of the cyst under ultrasound guidance is an option. A large needle is used as the fluid is usually thick and gelatinous. This procedure is more successful with larger cysts. It is important to know that there is a high possibility of recurrence of the cyst after aspiration. Injecting a small dose of steroid after the aspiration aims to reduce the inflammation in the area and reduce the chance of ganglion cyst recurrence but this remains a possibility. Using ultrasound guidance will ensure accurate needle placement and avoid injuring any important structures adjacent to the ganglion cyst.

### **What is ultrasound?**

Ultrasound is high frequency sound waves produced by a special machine. They can penetrate the skin providing very useful images of the deep tissues within the body. It is a harmless way of imaging and it is extremely useful in assessing various musculoskeletal conditions that can involve tendons, muscles, joints and the adjacent soft tissues. Unlike x-rays, ultrasound does not involve exposure to radiation or any harmful side effects.



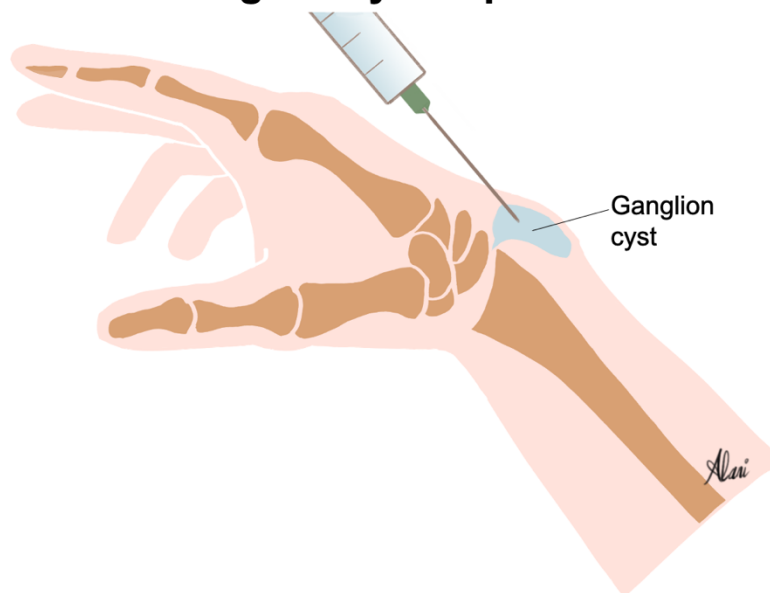
## What is steroid/cortisone?

Steroids are strong anti-inflammatory medicines that can help relieve pain and inflammation. The commonly used types of steroid injections are hydrocortisone, triamcinolone (Kenalog) and methylprednisolone (Depo-medrone).

## How is ganglion cyst aspiration done?

Your doctor will speak to you on the day about the procedure and address your questions. The procedure is done under ultrasound guidance and you will be positioned according to the site of the cyst. The doctor will assess the area using ultrasound to determine the best approach. Then the skin will be cleaned and prepared at the site of the injection, and numbing medication can be administered to the skin using a small needle. Then, a needle will be advanced into the cyst under ultrasound guidance to allow for aspiration of fluid and injection of steroid. Aspiration of small ganglion cysts can be unrewarding; it can result in very little fluid (or no aspirate) but still the wall of the cyst can be fenestrated a few times to reduce the possibility of fluid accumulation. Steroid injection helps reduce the inflammation in the area, and the possibility of cyst recurrence.

### Ganglion cyst aspiration



## What happens after the procedure?

A small plaster is usually applied to the site of procedure. You can remove this later during the same day. You can eat and drink normally before and after the procedure. You can shower as usual but avoid very hot showers/steam rooms. You can use simple painkillers like paracetamol, if you experience pain at the site of injection. It's advised not to drive immediately after the procedure. Rest the area and avoid extraneous activities for at least 48 hours after the procedure.



## **How long does a ganglion cyst aspiration procedure take?**

The length of the procedure depends on the difficulty of the case and the experience of the doctor. Usually, 30 minutes is a reasonable time for the whole procedure (including explanation to the patient and preparation).

## **What are the possible complications of ganglion cyst aspiration/steroid injection?**

The complications are very rare in general. These include:

- Pain and discomfort for a few days. This is sometimes referred to as a “steroid flare”. Simple painkillers like paracetamol can help with this.
- Temporary bruising due to small blood collection under the skin at the site of injection.
- “Infection” is very rare but important to be aware of. It is reported to happen in less than 1 in 10000 of the cases. The symptoms of infection are pain, swelling and redness at the site of injection. Sometimes patients develop a fever. Get medical advice as soon as possible if you have these symptoms.
- Possibility of injury to adjacent structures (like nerves or vessels). This is rare with ultrasound guidance.
- Patients need to be aware of the possibility of ganglion cyst recurrence after the procedure. A steroid injection would reduce the chance of this.
- Patients need to be aware that ganglion cysts (especially small ones) usually contain thick fluid that can be difficult to aspirate using a needle. We always attempt to aspirate the cyst to dryness (completely) but if the contents are thick, then this can result in little or no aspirate.
- Local thinning of the fat at the injection site. This can cause dimples in the skin and can be permanent.
- Local change in colour (usually lightening) of the skin at the injection site. This can be permanent.
- If you have diabetes, your blood sugar level may temporarily increase.
- If you have high blood pressure, your blood pressure may temporarily increase.
- Temporary facial flushing.
- Other side effects like mood changes, increased appetite, difficulty in sleeping and menstrual disturbance are very rare.

A specialist musculoskeletal radiologist consultant will see you on the day, discuss the procedure with you and address your questions. You can find more information about your procedure on our website [www.mskultrasoundinjections.co.uk](http://www.mskultrasoundinjections.co.uk)



## **Steroids injections and COVID 19**

Steroid injections may reduce a person's immunity for 2-4 weeks following injection. The reduction in immunity for most people is likely to be small and it is unclear if this has any impact on their risk of contracting COVID-19. The emerging data now suggests that the risks are probably very low.

The British Society of Rheumatology have published their guidelines on 20th November 2020 regarding the treatment of patients using corticosteroid injections to support clinicians and patients in the clinical decision making.

The aim of ultrasound guided intra-articular injections is to deliver a small and effective dose of the medicine accurately and directly into the site of pain, thus minimising the side effects.

However, there remains a theoretical risk that a steroid injection could:

- Increase the likelihood of contracting COVID-19 due to its immunosuppressant effect
- Reduce the body's ability to fight the COVID-19 virus
- Potentially make the patients more contagious to people around them, following a corticosteroid injection.

We screen our patients for any high-risk factors for COVID-19 (patients over the age of 70, BMI>40, BAME, diabetes, ischaemic heart disease, chronic respiratory disease or hypertension).

Because the size of risk is unknown, it is recommended that patients and clinicians should reach a shared decision weighing up the risks and benefits of proceeding with steroid injection treatment.