



## Ultrasound guided Baker's cyst aspiration and steroid injection Patient information leaflet

### What is a Baker's cyst?

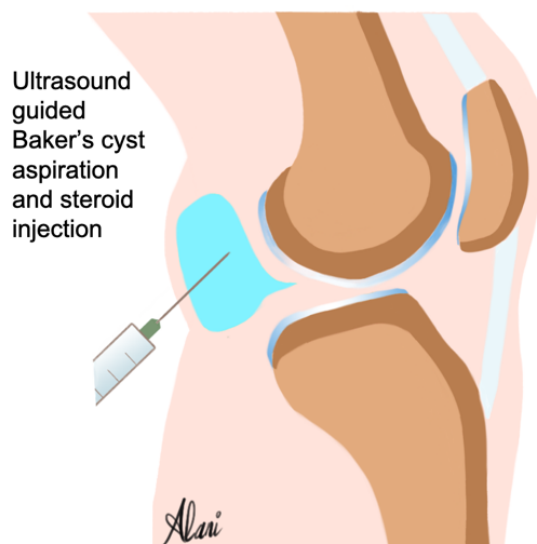
A Baker's cyst is a swelling at the back of the knee due to fluid accumulation. It is usually associated with build-up of excess fluid within the knee joint, which is referred to as "knee joint effusion" as some of the fluid may be pushed at the back of the knee. A Baker's cyst is usually secondary to a knee joint condition that results in build-up of fluid, such as knee joint inflammation (for example in conditions like Rheumatoid arthritis), knee joint wear and tear (osteoarthritis), meniscal and cartilage tears.

### What are the symptoms of Baker's cyst?

- Swelling at the back of the knee that can change in size.
- If large enough, it can lead to pain and restriction of movement, particularly when straightening the knee.
- A Baker's cyst can sometimes leak (usually referred to as a ruptured Baker's cyst). This can present with sudden pain and swelling in the calf. If these symptoms occur, it is important to see a doctor to rule out a more serious condition called deep vein thrombosis or "DVT", which refers to clot within the deep veins in the leg.

### What is ultrasound guided Baker's cyst aspiration and steroid injection

If the cyst is large and causing significant symptoms, then ultrasound guided aspiration can be performed. It is important to highlight that the cyst is connected to the knee joint and therefore it may reoccur especially if there is generalised build-up of fluid and there is an underlying cause for this within the knee joint (for example knee osteoarthritis or meniscal tear). An ultrasound guided steroid injection to the cyst at the time of the aspiration would help to reduce the chance of cyst recurrence.





## **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 Baker's 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 usually asked to lie on your tummy on the examination table. 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.

## **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 Baker's 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 Baker's cyst aspiration/steroid injection?**

The complications are very rare in general. They are similar to having a steroid injection to the knee joint. 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.
- Patients need to be aware of the possibility of Baker's cyst recurrence after the procedure. A steroid injection would reduce the chance of this.
- Patients need to be aware that Baker's cysts sometimes 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.
- 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.