Ultrasound guided: Barbotage:

For calcific tendinopathy

Patient information sheet

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**Why have I been offered this treatment?**

Your Musculo-skeletal specialist has diagnosed a calcific tendinopathy which is a condition that can cause reduced movement and pain of the shoulder. It is a build-up of calcium within one or more of the tendons in the shoulder. It is not clear why this happens and a few different explanations have been hypothesised but uncertainty remains.

**What is involved?**

Barbotage is a procedure that aims to reduce pain, improve function and aid reabsorption of calcium deposits within the shoulder. It involves injecting a local anaesthetic into the bursa overlying the tendons. A needle and the pressure of injecting a mixture of sterile saline and local anaesthetic are then used to try to break down the calcium deposit and it is sometimes possible to remove some of the calcium using the syringe. A small amount of steroid is then injected into the bursa overlying the tendons to prevent an inflammatory reaction afterwards.

**Who will be performing this procedure?**

A Musculoskeletal Sonographer or a Radiologist performs the procedure using Ultrasound guidance to ensure the procedure is accurately placed.

**What should I do prior to the procedure?**

Please take your normal pain relief medicine one hour prior to your procedure. Bring your reading glasses so you can read the consent form. *Please bring along someone to drive you home after the procedure and take the rest of the day off.*

**The procedure**

Your clinician will conduct a scan of your shoulder first to check there are no significant tendon tears and locate the calcification. This part is usually done in sitting. You will be asked to remove your t-shirt (and place your bra straps under your arm). For the procedure you will be seated or lay on your back and the process usually take place around the front or side of the shoulder.

Approx. 2-3 syringes are uses to break down the calcium deposits within the tendon using an equal mixture of Saline and Anaesthetic and the whole process takes up to 30-40 minutes.

**How does the procedure work?**

The deposition of calcium in the tendon has a formative phase (where it develops) and a re-absorptive phase (where is starts to break down and be reabsorbed). It is thought that the high levels of pain start when entering the re-absorptive phase and barbotage aims to speed up this process.

**What can I expect to feel during and after the procedure?**

There may be a sensation of discomfort during this procedure. Very rarely do people describe it as painful but this can happen and you should tell the clinician if this is the case.

**Is it Safe?**

Barbotage is a very safe procedure and the risks are small. Ultrasound is a perfectly safe modality and poses no threat to you during this procedure. The most common complications observed in the literature are mild fainting and a post treatment bursitis. Most of the other risks are around the use of the steroid part of the injection. A full understanding of these can be found by reading our steroid information leaflet alongside this guide.

**You must tell the clinician** if you are diabetic; epileptic; on blood thinners; ever had a bad reaction to steroid or anaesthetic injections or if you have any allergies to any medicines.

As with any injection bleeding or bruising may occur, very rarely you may get an infection in the area. If your joint becomes more painful, red or hot you should see your doctor immediately, especially if you feel unwell. If this should occur it will need treating in hospital urgently, possibly with a joint washout and a course of intravenous or oral antibiotics. Allergic reaction is an extremely rare but serious side effect of anaesthetic or steroid. This reaction causes swelling and is called an anaphylactic reaction, similar to people who may be allergic to nuts or bee stings. If you have any breathing difficulties in the 24 hours following injection you should call an ambulance immediately.

**What happens after the procedure?**

Afterwards some people describe heaviness or weakness in the shoulder or arm. These symptoms do not always occur and usually resolve quickly but can occasionally last beyond a week. In some cases the movement in the arm can be improved immediately. It is advisable to consider painkillers as required.

You may get some bruising around the injection site and the numbness of the skin may last for several hours. You will be asked to stay in the department for 15-30 minutes after the procedure before being allowed home. Most people are usually back to work the next day, although if you have a physical manual job, you may be advised to have a couple of days off

**Does it work?**

Like most medical treatments the evidence is mixed. There is some good evidence to state it is very effective and this fits with our experiences here. One paper published reviewed 13 studies looking at 908 patients in total treated with ultrasound guided barbotage and concluded it was a ‘safe technique, with a high success rate and a low complication rate’ (Gatt et al., 2014).

**What if it fails?**

It may be appropriate to consider a repeat barbotage procedure if improvement has occurred but not to the level hoped for. It may be advisable to simply continue with your Physiotherapy exercises until the natural improvement of this condition starts to happen or your specialist can discuss the option of a surgical referral.

**How will I be followed up?**

Your Musculoskeletal specialist who requested the Barbotage, may wish to review you at approximately 4-6 weeks after the procedure to see how you are progressing. This can often be done via a telephone review.

**Questions or concerns?**

Your Musculoskeletal Specialist who has referred you will be able to answer any queries you may have. You can also telephone the MATT Clinic on 01243 623603.

**References for further reading:**

Funk L. Calcific Tendonitis. Shoulderdoc.co.uk. Accessed Feb 2020. Avaliable at: <https://www.shoulderdoc.co.uk/section/10>

Gatt DL, Charalambos P & Charalambous B. (2014) Ultrasound-guided barbotage for calcific tendonitis of the shoulder: A systematic review including 908 patients. Arthroscopy: the journal of Arthroscopic and related surgery. 30(9): 1166-1172. <https://doi.org/10.1016/j.arthro.2014.03.013>