STRENGTHENING SCLEROSANT INJECTIONS
(Prolotherapy)
Patient Information

Your doctor or other health care professional will have referred you for this procedure to treat a problem with a ligament, muscle or joint.

Some problems respond well to time and rest, physiotherapy, etc. but some persist or become worse with time. One option is to consider needle-based treatments. Traditionally people know about cortisone injections which work really well in a lot of circumstances where the main issue is inflammation and pain – here it works as an anti-inflammatory. However, where the underlying problem is *instability* the cortisone approach may reduce pain but not treat the underlying problem. In selected situations an alternative approach is sclerosant prolotherapy injections.

WHAT IS A SCLEROSANT PROLOTHERAPY INJECTION?

Prolotherapy is short for proliferative therapy. Traditionally this involves injecting a form of dextrose into the area. Sclerosants are other chemicals that, like dextrose, purposely irritate body tissues. A more recent sclerosant is sodium Tetradecyl sulfate. Polidocanol is also used but is not easily available locally. A common use of sclerosants is to treat varicose veins where they have been used for many decades with a high rate of safety and effectiveness.

If you are allergic to sulpha drugs you may be allergic to Tetradecyl - other options include injecting Polidocanol, dextrose (less effective) or just needling (much less effective).

The doctor (radiologist) injects the sclerosant into the damaged tissue – usually a ligament or joint capsule. The idea is that it on purpose irritates the ligament and “tricks” your body into thickening and strengthening - that helps to stabilise the joint. As the whole area becomes more stable, there is less abnormal movement and this can lead to reduced pain. A very mild form of this therapy involves only using a needle with no medication, but this method can be less effective.

WHO BENEFITS?

This is most useful where the main issue is *instability*.

This can happen in one area after an injury e.g. in your ankle after a major sprain. In this situation we treat just that area and the involved ligaments. Usually one or two treatments are needed.

In some conditions this may be more widespread due to an underlying abnormality that involves many joints. This is common in hypermobile patients, especially those with Ehlers-Danlos Syndrome and similar conditions. Because of the underlying condition each area may need many treatments.

HOW DO YOU PREPARE?

INITIAL APPOINTMENT (BEFORE 1ST INJECTION ONLY):

- Some days before your first injection you will have a short appointment to discuss the procedure with the radiologist. You may not have an injection that day. You will be asked to sign a consent form.
- We need details of your current medications. We especially need to know if you are on any anticoagulant medications (blood thinners) – aspirin, Warfarin, Dabigatran, Clopidogrel, etc.
- Details of your medical history as it relates to this condition. We especially need to know if you have any condition that leads to easy bleeding.
- A list of medical allergies - we need to know the specificS

BEFORE THE INJECTION DAY APPOINTMENT:

- If you are on any anti-inflammatory medications you should stop these 24 hours before your injection appointment. You will need to take other medications for pain. (See “HOW DO YOU MANAGE PAIN?”)
- Eat and drink as normal
- **Arrange for someone to drive you home from the appointment**
- One hour before your appointment, take a dose of your usual pain medication (See “HOW DO YOU MANAGE PAIN?”)

WHAT HAPPENS DURING THE PROCEDURE?

The doctor will:

- Review your doctor’s referral and confirm your expectations
- Review and discuss your list of current medications and medical history
- Confirm the consent form you have signed and discuss any questions
- Examine the area and carry out a brief ultrasound examination to assess the details of the problem and to plan the procedure. The area for treatment will be marked on your skin with a pen. This will wash off later.
- Clean each injection point on your skin with antiseptic
- Inject (usually) a small amount of local anaesthetic
- Use ultrasound (in many cases) to help guide the needle tip to the right spot, where the injection will then be given. This may feel “weird” and uncomfortable and can occasionally be sore.
- Remove the needle and place a small dressing on the injection site
- Continue to any other planned sites and repeat the steps listed above. For patients with just one joint involved there will usually be 1 or 2 injections. For those with hypermobility in multiple joints there may be up to 6 injections.

WHAT SHOULD YOU EXPECT AND DO AFTERWARDS?

- You will stay in the department for 20 minutes after the procedure. If all is well at that stage you can go home.
- Immediately afterwards the area may be a little uncomfortable but it shouldn’t be too sore as the local anaesthetic will still be active.
- After about 2 – 4 hours it will likely get quite painful. This is a normal reaction. Remember, we are purposely “irritating” the body to trigger it into healing itself.
- Moderate to severe pain and swelling will likely be present for 1 – 4 days. This usually resolves to minor or no pain by day 4 or 5.
- Rest the area as best you can for a day or so and then gradually use the area again within limits of pain. Bracing the area with a splint or elastic bandage may be useful. You will be given specific instructions at the appointment.
    - For some areas e.g. ankle where bracing is important you will need to access or buy a suitable elastic type support.
- Actual strengthening and improvement in stabily will likely take 1 – 3 months for those with just one joint involved. The joint may need a second injection. Those with hypermobility may need several injections at each place over many months.

HOW DO YOU MANAGE PAIN?

Everyone is different!!! Some people need little or no pain medicine while others need some. Remember that anti-inflammatory medications (e.g. ibuprofen, diclofenac etc.) *reduce* the effect of prolotherapy so they should NOT be used for a week if at all possible.

The usual preferred options are paracetamol, codeine preparations or Tramadol.

If you know that you need stronger medicines that require a controlled medicine prescription such as morphine-based medicines, you will need to arrange this with your GP *before* your prolotherapy appointment - we are not able to write prescriptions for these controlled medicines.

Most patients, especially those with a longterm condition such as Ehlers-Danlos Syndrome, will likely have a pain management system that works for them.

HERE IS A SUGGESTED APPROACH:

- Take a dose of your usual pain medicine 1 hour before you come to the appointment
- Bring your pain medicines with you so that the doctor can discuss with you what to do after your injections

WHAT ARE THE POSSIBLE COMPLICATIONS?

As with all procedures there are some risks. Serious harm is uncommon. Pushing through pain and discomfort and resting and bracing is an investment in your future.

In most people other than some pain after the injection there are absolutely no complications. What follows is a short summary of other uncommon responses as a reference.

GENERAL RISK

- No positive effect occurs - you don't get any better. Not common but possible.

COMPLICATIONS OF THE ACTUAL INJECTION (THE NEEDLE)

- Common
  - Bruising
  - Discomfort
- Uncommon
  - Numb – local anaesthetic on a nerve
- Very uncommon
  - Damage to surrounding structures
  - Infection

COMPLICATIONS OF THE SCLEROSANT MEDICINE INJECTED

- Common: These should be seen as "good" – your body is reacting the way it should
  - Pain
  - Swelling
  - Short-term reduced movement
- Uncommon
  - Headache
  - Fatigue
  - Skin discolouration
  - Local rash
  - Fever
  - Hot flush
- Very uncommon
  - Damage to the tissues in the area (necrosis)
  - Nerve damage
  - Cough
  - Nausea
  - Severe allergy and anaphylaxis