



## What is Hydrodilatation/Arthrography?

An **Arthrogram** is a procedure usually performed under imaging guidance (using equipment such as a x-ray, CT or ultrasound) that involves introducing a needle into any joint of the body. It usually involves the injection of contrast (x-ray dye) to confirm the correct depth and position of the needle.

If used solely as a pain relieving procedure, local anaesthetic and cortisone may be injected, or other healing medications, such as glucose (prolotherapy), Autologous Blood Injection (ABI) or Platelet Rich Plasma (PRP).

An Arthrogram may also be of diagnostic use. Pain that disappears following an injection of local anaesthetic into a joint usually confirms that the joint injected is the source of the patient's pain. As groin pain has many causes, this technique is commonly used in deciding whether the hip joint is the cause of a patient's groin pain. Although this may identify the source of the patient's pain, it does not determine the exact cause. For this, further imaging is usually required, such as a CT scan. If this scan is to be performed on the same day as the Arthrogram by the fluid and dye injected into the joint may not only relieve the patient's pain, but also distend the joint and make subtle problems more evident, such as a cartilage tear.

In specific circumstances, excessive inflammation in a joint may result in the lining and capsule of that joint contracting, causing pain and restriction of motion. This occurs in the shoulder and is commonly referred to as a 'frozen shoulder,' however is also known as adhesive capsulitis, or capsular constriction. This may be treated by the procedure of **Hydrodilatation**, whereby an Arthrogram of the shoulder is performed followed by stretching of the capsule, injecting high volumes of saline. The effect of this is therefore twofold; pain and inflammation is reduced by the cortisone and local anaesthetic, and range of motion is improved by stretching the capsule.

## What should I expect when I have my procedure?

After changing into a gown, you will be asked to lie on an examination bed or chair with the area of clinical interest exposed. The risks and possible complications will be discussed with you prior to the procedure and with your acceptance we will proceed. The joint to be injected is then located using the relevant radiological equipment (such as an x-ray machine, ultrasound or CT scanner). A mark is then placed on your skin that correlates with the path that the needle must take to pass into the joint in a safe and precise manner. The skin is thoroughly cleaned with a hospital grade antiseptic wash and a local anaesthetic is administered. You may experience brief discomfort which will pass once the local anaesthetic has taken effect, this generally takes only a few seconds. A needle is then placed into the joint, at this time contrast (dye) is injected to confirm the position. Occasionally, depending on varying patient body sizes, the degree of difficulty of the procedure or the condition affecting the joint, the needle may require re-manipulation.

Once correct positioning of the needle has occurred and depending on the test that has been requested, one of the three following options will be performed:

1. For simple pain relieving injections into a joint, a small dose of corticosteroid and local anaesthetic will be administered.
2. For a diagnostic Arthrogram before a CT scan, a contrast (dye) will be injected prior to your final and definitive scan, with or without corticosteroid and local anaesthetic as outlined in (1).
3. For a Hydrodilatation, local anaesthetic and corticosteroid are mixed with the saline and injected into the joint. In the shoulder, where this procedure is most commonly performed, 10 to 20ml of fluid is injected.



The Arthrogram is now over. The injection site is then covered with a small dressing, which may be removed in 24 hours. Our Radiologist will now discuss post-procedural care with you.

## What does Exact Radiology recommended for my post-procedural care?

Refrain from any significant activity involving the body part for one week. Necessary activities of daily living are permissible, but do not engage in any deliberate exercise such as running, weight training or other sporting pursuits.

Some discomfort may occur following the procedure, Paracetamol and a cool compress may help. If the pain is severe, anti-inflammatory medications are particularly helpful. This pain flare is usually most prominent in the first three days following the procedure and slowly decreases. If you are concerned, please phone the Exact Radiology Clinic where the injection was performed.

Exact Radiology Clinics recommend that you discuss your post procedure rehabilitation options with your Health Care Professional eg. physiotherapy treatment program.

## Are there any risks or side effects from these procedures?

As with any medical procedure there are always risks. The most serious risk is an infection, as an infection may further damage the joint and require surgery. As a minimum, an infected joint will require at least several weeks of antibiotics, often delivered via an intravenous line. Though serious, the chances of an infection are small, approximately 1 in 30,000. Side effects are usually associated with the medication used. For example, if cortisone is used and you are diabetic, you may have raised sugar levels for several days. Cortisone may also result in facial flushing, palpitations and restlessness. If cortisone is to be injected, we will provide you with a fact sheet about cortisone at the time of your visit. Rarely, people may be allergic to the x-ray contrast. If this is known, we may use air to confirm appropriate needle position in the joint that is injected.

## How do I prepare for my procedure?

When you phone to arrange your appointment one of our friendly reception staff will advise of the requirements and preparation for these procedures. We will also need to know if you are currently on blood thinners such as Warfarin or Aspirin.

**Blood thinning medications that you are currently taking should be ceased prior to this procedure. This should be discussed with your Health Care Professional prior to making your appointment.**

(Aspirin and Warfarin for 5 days, Plavix for 7 days and Iscover for 8 days). If you have had a heart valve replacement, it may be necessary to take antibiotics before the procedure. Please discuss this with your Cardiologist/Cardiac Surgeon and take antibiotics as directed.

## Things to bring along to my appointment:

- Previous films for area of clinical interest.
- Medicare or Department of Veteran Affairs card (as we bulk bill all eligible Medicare services).
- Referral (this is a legal requirement).
- Workcover details and claim number (if this is a Workcover claim).

[Last Updated: 17/08/2010]