

AUTOLOGOUS BLOOD INJECTIONS (ABI), PLATELET RICH PLASMA (PRP) and DRY NEEDLING (DN) INFORMATION FOR PATIENTS

Why perform Autologous Blood Injection (ABI), Platelet Rich Plasma PRP) or Dry Needling (DN)?

The aim is to promote healing in an area of tendinosis or tendon tear.

Dry needling (DN) causes little bleeds in the tendon.

Injection of blood (ABI) just increases the amount of blood delivered to the area.

ABI/PRP involves injecting the patient's own blood into a part of the body to induce healing.

PRP concentrates the important factors in the blood so a more concentrated product is injected.

If tendinosis only, then DN alone may be performed. If tendon tear ABI or PRP performed.

Often however, these two therapies are combined.

ABI, PRP and DN are thought to work by the fact that blood carries growth factors which trigger stem cell recruitment, fibroblast stimulation and inducement of the healing cascade.

This is usually done in conjunction with strengthening exercises and physiotherapy.

How is the procedure performed?

All anti-inflammatory medication should be ceased about 10 days before the procedure.

All these procedures are performed under ultrasound control so that the injured region can be directly visualised and accurately injected.

If you have not had a prior ultrasound an expert musculo-skeletal sonographer or radiologist will usually first scan the area of concern to confirm the pathology and plan the treatment.

If ABI or PRP is being performed, a small cannula (similar to having a blood test) will be placed into a vein in an arm and left there for the duration of the procedure.

If ABI/PRP is not to be performed, this step will be left out.

For ABI about 2-5 ml of blood is taken and for PRP 10ml blood.

The skin is cleaned with an antiseptic agent. Local anaesthetic is usually then injected into the skin and around the tendon to make the procedure more comfortable.

If dry needling alone is performed, this will now occur under ultrasound control.

This consists of repeatedly passing a needle through the abnormal area of the tendon to cause small bleeds.

If ABI/PRP is to be performed, DN may be performed first to fenestrate the tendon.

If PRP is to be performed, the blood will first be centrifuged which takes around 10 minutes.

What do I have to do prior to the procedure?

Avoid all anti-inflammatory medications for 7 days prior to procedure. This includes prescription medications as well as over the counter drugs such as: naproxen, aspirin, and ibuprofen (*cardiac patients should continue taking aspirin*). Those patients on blood thinners (Warfarin/Plavix/Pradaxa/Xarelto) are not candidates for PRP injections

How effective is this injection?

The response to treatment is variable.

The degree of response to treatment depends on several factors; including:

1. Body part injected.
2. Degree of tendinosis and size of the tear of the tendon.
3. Individual responsiveness.

Difficult to predict, overall about 70-80 % of patients get improvement. This improvement can be quite dramatic in many cases. The procedure may be repeated if necessary. If so, this is usually performed at 4-6 weeks.

Up to three separate treatments may be required. This will be determined by clinical outcome.

Is the injection painful?

The degree of discomfort varies depending on:

1. Area to be injected.
2. Degree of inflammation in the area.
3. Previous experiences (good or bad). Fear of needles.

Overall the procedure is well tolerated and usually produces only minimal discomfort.

There can be a slight increase in pain and stiffness in the area injected for a day or two afterwards. Occasionally up to a week.

We try to limit the use of ice-packs or anti-inflammatory(e.g. ibuprofen) medication after treatment for about 10 days. Paracetamol based products are acceptable.

Risks and Side effects:

The procedure is usually well tolerated and adverse reactions are rare.

1. After injection discomfort. Common. May last a few days and rarely up to a week.
Painkillers such as Paracetamol if necessary.
2. Bruising: Usually minor.
3. Non – response: 20-30%.
4. Tendon rupture: Uncommon. Possibly to due overuse post injection due to symptom improvement or progression of disease.
5. Infection: This is rare! Signs/symptoms include: Pain (increasing after 2-3 days at injection site), redness, swelling, temperature and feeling of being unwell. Please consult your doctor as soon as possible.
6. If a nerve block is performed, there is an extremely small risk (<0.1%) of injury to nerves, and this is usually temporary.

After the procedure:

Initial pain relief due its anaesthetic properties. Then possibly some discomfort for a couple of days.

The maximum effect usually at the 4-6 week mark.

After the procedure what you will be able to do will depend on the area injected and reason for the treatment.

Post procedure rehabilitation/ exercise regime is variable depending on the tendon involved, degree of injury and the individual patient treated.

This will usually be organised/ supervised by your referring doctor or physiotherapist.

Usually you will be asked to avoid strenuous activity the first two weeks, with a gradual return to full activities.

If you have any questions or concerns after treatment please contact Independent Sports Imaging or your referring physician.

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