



# Autologous Blood Injection (ABI)

## Patient Information Sheet

Autologous Blood Injection (ABI) harnesses the healing properties of blood in order to reliably treat pain arising from tendons, ligaments and muscles. With excessive use and increasing age, pain arising from tendons is becoming more prevalent, particularly in active “baby boomers”. Prior to any proposed ABI, an accurate diagnosis must be made, which usually requires a test such as an MRI or ultrasound scan of the body part to confirm that the specific tendon, ligament or muscle is the source of the patient’s pain. Once referred for an ABI, the Sport & Exercise Medicine Physician at Specialist Sportscare WA will then review the patient and discuss the ABI procedure and rehabilitation.

ABI is most commonly used for the treatment of diseased tendons, commonly known as tendinitis. The medical term for this is tendinosis or tendinopathy. With increasing severity of tendinosis, partial thickness tears may form, which if left untreated can result in a full thickness tendon tear. The tendinosis-tear process is simply an increasing spectrum of injury to the tendon. Any tendon can be treated with this procedure and though not used routinely, the procedure may also be used in muscle and ligament tears (“strains and sprains”).

The procedure of ABI involves withdrawing whole blood from the patient, usually taken from the patient’s elbow or forearm, and then injecting it into the area of maximal abnormality of the tendon occasionally using a machine called an ultrasound for guidance. Ultrasound guidance may be used to ensure that the blood is delivered precisely and safely to the area concerned. Platelets, small cells found in blood, are involved in clotting and contain “alpha granules” which release substances such as platelet-derived growth factor (PDGF) into the tendon and commence a cascade of natural healing. Though dependent on the severity of the underlying tendon disease and the length of symptoms, patients may obtain complete or significant relief of their symptoms.



## POST PROCEDURE INFORMATION

This information is for patients who have undergone an ABI (Autologous Blood Injection) at Specialist Sportscare WA.

Following this procedure, please be advised of the following recommendations:

- 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.
- A moderate amount of discomfort is expected due to the process of inflammation and is how the procedure provides benefit. Inflammation results in repair of the damaged tissues into which the blood has been injected, however also causes swelling and pain. As such, paracetamol and a cool compress may help.

If the pain is severe, anti-inflammatory medications are particularly helpful. This pain flare is usually worse in the first three days following the procedure and slowly decreases. If you are concerned, please call our clinic to discuss your specific situation and our doctor will advise you further.

## Follow up

- After the first week, you are advised to commence a 3 week program of rehabilitation under the supervision of a physiotherapist, concentrating on stretching and eccentric exercises. You may already have a physiotherapist that has assisted you in the past. If not, we can recommend one to you. The rehabilitation is low intensity at the start, gradually increasing depending on your pain and general progress and is at the discretion of your physiotherapist.
- At this point, it will be 4 weeks following the injection (1 week rest followed by 3 weeks of a graduated rehabilitation and exercise program).
- If you have no more pain, then no further action is required.
- If your pain has decreased but pain remains, then a second injection is recommended.
- If you have had NO benefit, a repeat injection is recommended. There are many patients that only respond after a second injection.
- If a second injection is performed, then the rehabilitation program as for the first injection is repeated. If you have had relief at this point but pain persists, then a further injection may be performed.

If you have had no benefit after this, then you are unlikely to respond to a repeat injection. Alternative management options will be discussed with your treating doctor