

## **Treatments for tendinopathies in Greater Manchester**

### **Background**

Achilles tendinopathy, tennis elbow and plantar fasciitis are painful conditions of the heel, elbow and foot respectively. The pain is due to a problem with the tendons in these areas and may be caused by inflammation, degeneration, tearing, excessive stretching or simply overuse. In many cases, the problem will resolve of its own accord with simple measures such as medication, rest or special exercises.

In a small number of cases, the problem may persist, and people affected may request alternative treatments. Some of these treatments could include extracorporeal shockwave therapy (ESWT), autologous blood and platelet-rich plasma injections.

### **What is Extracorporeal Shockwave Therapy?**

Extracorporeal shockwave therapy is a non-invasive treatment in which a device transmits acoustic shock waves through the skin to the affected area (extracorporeal means outside of the body). The shockwaves are mechanical and not electric; they are audible, low energy sound waves, which are thought to work by increasing blood flow to the injured area and thereby accelerating the body's healing process. This may be applied once or in several sessions.

### **What are Autologous blood injections?**

Autologous blood refers to blood that is collected from a patient and later reinfused into the same individual. A small volume of blood (between 3 to 5 ml) is taken from the vein of an arm, identical to having a blood test. This blood is then injected into and around the tendon guided by the ultrasound scan in order to promote the healing process.

The procedure is not particularly painful. However, a few hours later as the local anaesthetic wears off, there can be discomfort. Painkillers and ice are sufficient to control this. Patients should rest from activity for a few days then start a specific rehabilitation programme prescribed by the medical practitioner. Sometimes it is necessary to repeat the procedure after a couple of months.

### **What is Platelet Rich Plasma therapy?**

Similar to giving blood, a tourniquet is placed around your upper arm and a small needle is introduced into a vein, where some blood is then extracted. The extracted blood sample is placed in a centrifuge machine, which is a mechanical process, and spun at high speeds, separating the red blood cells from the platelets (found in the plasma). Once the target area has been anaesthetised, the platelets (and plasma) are injected under ultrasound guidance, directly into the damaged tissue. This procedure is known as platelet-rich plasma therapy.

### **What is Plantar Fasciitis?**

Plantar fasciitis or heel pain is one of the most common foot conditions treated by healthcare providers. It is characterised by a painful “inflammatory” process involving the plantar fascia (the tight band of connective tissue which supports the arch of the foot) which results in pain on the underside of the heel.

It may be caused by overuse, injury or by mechanical abnormalities and may be associated with micro-tears or fibrosis. It is more noticeable after the “first step” and during weight-bearing tasks particularly after periods of rest. Affected patients may have impaired health-related quality-of-life which could include social isolation, poor perception of health status and reduced functional capabilities. The pain is stabbing in nature and as stated above, may occur during the very first steps in the morning. However, once the foot is on the go and walking, the pain usually subsides although it is likely to return after long periods of standing or getting up from a seated position.

### **What is Achilles tendinopathy?**

Achilles tendinopathy, sometimes known as tendinitis, is a condition that can cause pain, stiffness and swelling of the Achilles tendon. This is a tendon connecting your calf muscle to your heel. Achilles tendinopathy can occur in both active and inactive people.

Symptoms may vary from person to person. They can appear gradually or suddenly and

People may experience one or multiple symptoms including:

- swelling
- pain that's worse during or after moving or exercising
- stiffness that's worse in the morning or after a period of rest
- tenderness to touch the affected area
- mild heat
- loss of movement and strength around the ankle and foot

### **What is Lateral Epicondylitis (Tennis Elbow)?**

Tennis elbow, also known as lateral epicondylitis, is a condition that can result from overuse of the muscles and tendons in the elbow. Tennis elbow is often linked to repeated motions of the wrist and arm. Some people have who jobs that involve repeated movements are at particular risk

The pain of tennis elbow occurs mainly where the tough, cord-like tissues of the forearm muscles attach to a bony bump on the outside of the elbow. The tissues are known as tendons. Pain can spread into the forearm and wrist.

Rest, pain medicines and physical therapy often help relieve tennis elbow. People for whom these treatments don't help or who have symptoms that get in the way of daily living might have a procedure, such as a shot or surgery.

Lateral elbow pain is generally a self-limiting condition. Most patients either resolve spontaneously or respond to standard conservative management such as rest, analgesics, Nonsteroidal anti-inflammatory drugs (NSAIDs), orthoses and exercise.

### **What evidence did we find?**

A review of the medical literature has been undertaken to find out whether these three interventions are safe and effective for the three conditions described above. To date, the published evidence is contradictory and on balance, it seems that these interventions are not effective.

### **Recommendations**

NHS Greater Manchester will consult with medical experts to decide whether these tendinopathy interventions should be routinely available.