

### **Patient Information**

After 7 - 10 days patients can gently recommence their rehabilitation programme; this is thought to be essential to assist with tissue healing.

If you would like more information or have any concern, please telephone 01270 612551.

# How many treatments and how often is the therapy?

While responses to treatment vary most people will require 1-3 injections. Each set of treatments is spaced approximately four to six weeks apart. However, where the first injection produces no benefit, it is unlikely that a second injection will help.

There is no limit to the number of treatments you can have. The risks and side effects do not change with the number of injections.

#### Follow-up

Follow-up is usually 6 - 8 weeks with an Orthopaedics Consultant. At that time we will determine if a second injection is required.

This leaflet is available in audio, Braille, large print and other languages. To request a copy, please ask a member of staff.

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# Platelet Rich Plasma (PRP) Injections

In recent years there have been rapid developments in the use of growth factors for accelerated healing of injury.

PRP therapy offers a promising solution to accelerate healing of tendon injuries naturally without subjecting the patient to significant risk. PRP is an emerging treatment in a new health sector known as 'Orthobiologics'. The philosophy is to merge cutting edge technology with the body's natural ability to heal itself.

Blood is made of red blood cells, white blood cells, plasma, and platelets. Platelets were initially known to be responsible for blood clotting. However, they are now known to release growth factors, which promotes the healing processes.

Growth factors are released from the platelets which are found in the blood stream and influence the biological processes necessary for repair of soft tissues such as tendon or ligament following acute traumatic or overuse injury.

Initially, autologous (originating from the patient) whole blood was injected to promote healing in damaged tissues. However, PRP injections provide a much higher concentration of growth factors which are required within the body to promote tissue healing.

PRP is a blood plasma with concentrated platelets (the body's repairmen for damaged tissue). The concentrated platelets found in the PRP contain huge reservoirs of bioactive proteins, including growth factors that are vital to initiate and accelerate tissue repair and regeneration.

These bioactive proteins initiate connective tissue healing and repair, promote development of new blood vessels and stimulate the wound healing process.

# What are the tendons and ligaments?

Tendons connect muscles to the bone, making it possible for you to do many every day physical activities.

Overuse or damage to the tendon over a long period of time causes the fibres in the tendons to form small tears, a condition called tendinosis. Damage to tendons most often occurs in the knee, ankle, shoulder, wrist, biceps, calf and achilles tendons.

Ligaments are composed of fibres that hold one bone to another, stabilising the range of motion. When a ligament is damaged, it is no longer able to provide support, which weakens the joint.

Tendons and ligaments have poor blood supply. Combined with the stress of day-to-day activities, they do not easily heal from damage.

As a result the tendons and ligaments become inefficient causing chronic pain and weakness. Medical intervention is now possible in a new way.

#### Is PRP right for me?

If you have a tendon or ligament injury which has failed to respond to traditional conservative treatments, the PRP therapy may be the solution. The procedure is certainly safer, less aggressive, and less expensive than surgery. It should aid tissue healing with minimal or no scarring and alleviates further degeneration of the tissues.

Before any treatment there will be an initial consultation with an Orthopaedic Consultant to see if PRP therapy is right for you.

PRP is not first line treatment for tendon and ligament injuries but should be considered where conservative rehabilitation has failed.

This treatment can be used in elite athletes, provided a Declaration of Use is submitted by the athlete.

# How does this differ from a steroid injection?

Studies have shown that steroid injections may actually weaken tissue.

Steroid injections may provide a quick fix for temporary relief and lessening of inflammation but can potentially produce a tissue weakening effect. Consequently they do not generally provide long-term healing.

# Conditions currently treated with PRP Injections include:

- Plantar fascilitis
- Patella tendinosis
- Achilles tendinosis
- Any chronic tendinopathy or ligament injury
- Tennis elbow
- Golfer's elbow

### The procedure

After previous diagnostic imaging and a consultation with Mr Barnes to check your suitability for PRP injections, a 10ml sample of blood is withdrawn from the patient's arm.

The blood is then placed in a centrifuge that spins the blood for approximately 5 minutes.

This step removes the unwanted components that are not primarily responsible for healing.

Once separated, the PRP which contains platelet cells and growth factors is then ready to be injected back into the patient at the site of the chronic injury under ultrasound guidance.

The injection is then performed with ultrasound guidance to ensure accurate placement of the PRP injection into the damaged area. Local Anaesthetic is not usually needed.

### After the injection

The patient rests afterwards for 5 – 10 minutes and is then discharged home with post procedure instructions.

Increased pain at the site of injury may result for 48 – 72 hours post injection. Rest of the affected tissue during this time is recommended.

Non-steroidal anti-inflammatory drugs (e.g. ibuprofen, diclofenac etc) are best avoided in the first 10 days following the injection. Simple pain killers, rest, and ice can be used for post-injection pain.