

# PATIENT INFORMATION SHEET

## AUTOLOGOUS TENOCYTE IMPLANTATION FOR TENDON REGENERATION ORTHO-ATI™



### What is a tendon?

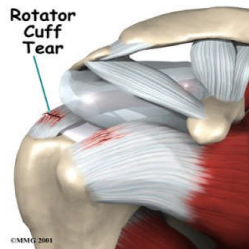
A **tendon** is a tough band of tissue that connects muscle to bone and is capable of withstanding tension. Tendons and muscles work together to allow movement and stability.

**Tendinopathy**, sometimes called chronic tendonitis, tendinosis, or chronic tendon injury, is degeneration of a tendon. It is caused by micro-tears in and around the tendon, leading to a decrease in tendon repair cells. This may lead to pain and reduced strength, thus increasing the chance of further damage.

rence of injury in the damaged region of tendon is common. Standard treatment of tendon injuries is largely related to the symptoms. Use of non-steroidal anti-inflammatory drugs combined with rest and gradual return to exercise is a common therapy.

### Tendon Bioengineering

The future of non-surgical care for tendinopathy is likely to be bioengineering. A therapy that addresses the underlying tendon regeneration has the best chance of preventing recurrence.



Rotator Cuff Tear

### How long would a patient be unfit for work following implantation of the tenocyte cells?

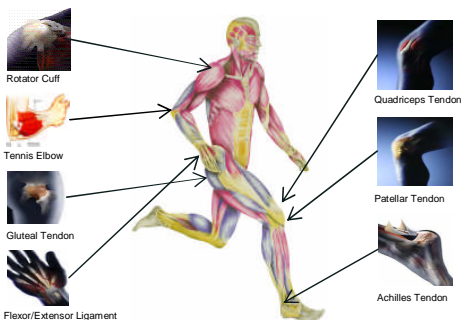
We would expect the patient to rest the affected region for 48hrs. The patient can then return to routine daily activities and undertake light work duties, gradually progressing to increased activities in the subsequent weeks. It is important not to excessively repeat the movements that caused the injury initially.

### At what stage would you expect the patient's recovery to be complete?

The patients improve steadily over a 6 month period as we are regenerating the cause not just treating the symptoms. We see improvement steadily from the 3 week period and by 6 months we can begin to draw conclusions as to the effectiveness of the outcome.

**For further information and advice regarding Ortho-ATI™ please consult your treating physician.**

### Common Tendon Injuries



**Chronic tendon injuries** may be caused by several factors including age, weight, nutrition, repetitive movements or sports. Symptoms can vary from an ache or pain, stiffness in the local area of the tendon, or a burning that surrounds the whole joint around the inflamed tendon. With this condition, the pain is usually worse during and after activity.

### Treatment

Tendons can be very slow to heal if injured, and rarely regain their original strength. Partial tears heal by the rapid production of disorganized collagen, which is weaker than normal tendon. Recur-

### What is Ortho-ATI™?

Orthocell's Autologous Tenocyte Implantation (Ortho-ATI™) is a new tissue engineering technique designed to assist and improve the regeneration of your damaged/injured tendon.

Ortho-ATI™ involves firstly a biopsy procedure whereby a small piece of tendon is harvested from a healthy tendon (typically the tendon below the kneecap). Your biopsied tissue is taken to Orthocell's specially designed and Government regulated laboratory where the building blocks of the tendon, the tenocyte cells, are isolated and grown over a period of approximately 4-5

weeks. The cells are then implanted via injection into the affected tissue via ultrasound guidance.

### Ortho-ATI™ success

There is documented scientific evidence supporting Ortho-ATI™ cell therapy detailing its success in treating common tendinopathy. Ortho-ATI™ is a new procedure developed due to the growing evidence that current procedures are limited in their success in the treatment of damaged tendons. This procedure offers the potential for a regenerative approach to the degenerate and difficult to repair tendon. There is significant pre-clinical work and a growing body of evidence to support the use of Ortho-ATI™.

### Would a patient be unfit for work following harvesting of the tenocyte cells?

Most patients return to work 1 to 2 days after the biopsy depending on their work environment.

### How long does it take to grow the tenocytes?

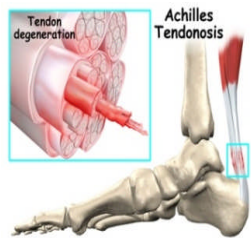
It usually takes 4-5 weeks from biopsy to the return of the tenocyte cells ready for implantation.

### When could I commence driving following ATI?

Approval should be obtained from your doctor however it has been our experience that patients are usually given clearance to recommence driving approximately 1 to 2 days following the treatment.

Orthocell holds a license to manufacture human tissue from the TGA. This license enables us to manufacture and distribute human tenocytes the building blocks of tendon tissue.

**TGA License Number:**  
MI-19052008-LF002420-11



Achilles Tendonosis