The Autologous Tenocyte Implantation (ATI) procedure you have undergone involves injecting your own cultured tendon (or tenocyte) cells into your injured tendon. These tenocytes are the ‘building blocks’ of tendons, and will assist in the repair and regeneration of your damaged tendon. You should expect continual improvement in your pain and symptoms over the next 6 months.

To ensure you get the best outcome from the ATI injection it may be helpful that you adhere to the following guidelines, and seek assistance from your treating physician, an Exercise Physiologist or Physiotherapist.

**PHASE 1: REST AND PROTECT**

During the first week it is important that you undertake ‘relative rest’ to manage any discomfort at the injection site and allow the tenocytes to embed into your tendon prior to tendon regeneration.

**THINGS TO DO**

- Apply an ice or cold pack on the area for 20 minutes as required for pain
- Pain medication as required.

**THINGS TO AVOID**

- Pain provocative positions or movements, such as prolonged walking (especially barefoot) and stretching the Achilles and/or calf musculature
- Heavier physical activity and/or work (sedentary work as tolerated after 1-2 days)
- Anti-inflammatory drugs

0-7 DAYS

**PHASE 2: INTRODUCTION OF STRUCTURED EXERCISES AND PROGRESS DAILY ACTIVITIES**

During Phase 2, it is important to gradually return to your normal daily activities and walking. You must keep in mind that pain similar to your pre-injection level is often reported, and it takes time for the tenocytes to produce the required repair tissue. Furthermore, mechanical stimulation of the tenocytes via structured tendon loading (exercise) acts as the catalyst in cell stimulation, and tissue repair. Therefore, we seek to apply the correct amount of load, not too much, not too little.

**THINGS TO DO**

- Continued use of ice packs as required
- Book an appointment with an Exercise Physiologist or Physiotherapist to begin an exercise rehabilitation program, consisting initially of soft tissue mobilization, isometric and graduated loading exercises to increase tendon tolerance to daily activities, and exercises to address other functional deficits that are known to contribute to the development of the condition

**THINGS TO AVOID**

- Prolonged walking and standing
- Sudden increase in activity intensity
- Activities that significantly aggravate pain (discuss ‘expected’ pain levels with your therapist)

WEEKS 1-4
PHASE 3: GRADUATED RETURN TO FULL FUNCTIONAL STRENGTH

It is now time to progress your exercises and activities to build functional lower limb strength and enable quality movement and walking gait, whilst facilitating an upcoming safe return to physical work and/or sport. You may be noticing some improvement in your symptoms; however, caution is still required in monitoring your safe and optimal progression of activity.

THINGS TO DO

✓ Graduate to patient-specific functional exercises under the supervision of your Exercise Physiologist or Physiotherapist
✓ Gradually re-introduce more physical work and/or sport related tasks, including running and jumping

PHASE 4: RETURN TO FULL ACTIVITY

Providing sound activity progression and adherence to the aforementioned principles, it is now time to consider a return to sport and/or physical work.

However, you must also ensure you do everything possible to prevent future tendon injury. To achieve this, it is important that you have a graduated and patient-specific return to activity, and ensure your lower limb strength is able to cope with your own personal physical demands.

You should also consider your general health, and discuss with your therapist associated health issues that have been strongly linked with tendon injury and/or degeneration (i.e. smoking, inactivity, excessive alcohol and body weight).