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Achilles tendon rupture

The Achilles Tendon (TA) is the large tendon that connects the calf muscles to the heel bone. The calf muscles move the foot down, can be seen while you point your ankle/toes away from you while sitting or lying. The calf muscle supports your body weight when you stand on your tiptoes or push off during walking.

Causes

Damage is often caused by a sudden increase in the load or stress through the Tendo Achilles e.g. increased intensity of physical activity, especially impact or jumping sports. There can be other causes such as stepping down a hole/missing a step and landing awkwardly.

Symptoms

When the Tendo Achilles is ruptured people typically feel a sudden onset of pain at the back of the heel or just above it. A sensation of being kicked in the back of the leg is often reported, with many hearing a loud 'pop' or 'snap' associated with this.
It is often difficult to walk normally and the foot and ankle may feel 'floppy' and weak.

Diagnosis

A diagnosis will be made using a number of techniques. Physical examination tests will be carried out by your medical professional and occasionally you may also undergo an ultrasound scan to confirm.

Treatment

A ruptured TA can be treated with **surgery** or **conservatively**.

- If treated conservatively, you will be placed into a boot with heel wedges to keep you in a slight tip toe position. This puts the tendon ends as close together as possible and gives them a chance to heal back together.

- If surgically repaired the two ends of the tendon are stitched back together and you will be placed in a boot as above. Having surgical repair leads to similar long term outcomes but may increase your risk of surgical complications. If you are treated surgically you will be in the boot for the same amount of time as those treated without an operation. Your surgeon will explain more before the procedure.

The boot must be worn day and night and only removed on the advice of your Physiotherapist or Consultant.

Timescale: in the boot

Total time in a boot will usually be between 6 and 8 weeks but this may vary slightly depending on your clinical findings.

- Boot with 2 wedges 2-4 weeks
- Boot with 1 wedge- 2 weeks
- Boot with no wedges – 2 weeks.
- Wean from boot

Rehabilitation

You may be referred to a Physiotherapist in the early stages and begin basic exercises from around 2 weeks. If not Physio will usually commence once the final wedges have been removed or you are weaning out of the boot.

Once out of the boot your ankle may feel a little stiff and very weak and your Physiotherapist will begin on helping you to regain range of movement at the ankle and foot with strength work added in slowly. Rehabilitation is progressed from this point back to preparing for return to work/sport/functional activities.

It is very important that you do your exercises regularly at home as well as with the therapist and only carry out exercises prescribed by your therapist who will guide you in when it is best to return to work and activity.

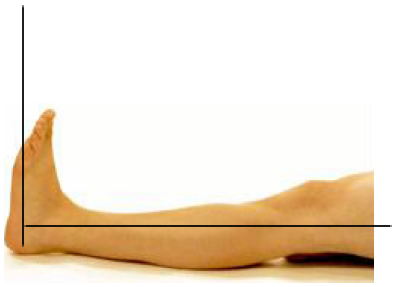
Full recovery will take a number of months and most people do not return to sport until a minimum of six months but this will be determined by your progress in therapy and may vary from person to person.

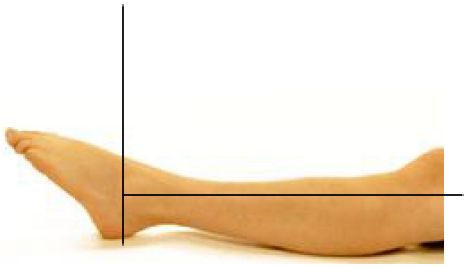
You are most vulnerable to re injury in the first 8 weeks after coming out of the boot as this is when the tendon is at its weakest. If you do not follow advice given by your therapist or try to carry out exercises or activities that have not been recommended you are at risk of re injury. This may lead to poor long term outcomes for your recovery.

Rehabilitation guidelines

- DO NOT CARRY OUT ANY CALF STRETCHING EXERCISES.
- 0-2 weeks- complete rest in boot.
- 2-6 weeks- NWB Protected ROM and calf recruitment.

Point your tip toes down as far as possible, try to tense your calf muscle at the end of the movement. Relax and return to the starting position. (3 x 10 repetitions/as able / x5 day)

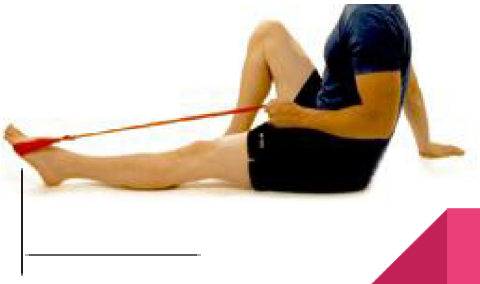




ON RETURN DO NOT LET FOOT PULL UP PAST YOUR TOES POINTING VERTICAL OR IF YOU FEEL A STRETCH BEFORE THIS STOP AT THIS POINT.

- **<u>6-8weeks</u>- NWB protected ROM and calf recruitment with progressive resistance.**

Point your tip toes down as far as possible pushing against the band with the ball of your big toe. Try to tense your calf muscle at the end of the movement. Relax and return under slow control to start position. (3 x 10 repetitions/as able / x5 day)



ON RETURN DO NOT LET FOOT PULL UP PAST YOUR TOES POINTING VERTICAL OR IF YOU FEEL A STRETCH BEFORE VERTICAL STOP AT THIS POINT.

- **<u>8 weeks onwards</u>- regain full ROM functionally, increase progressive weight bearing calf strength under physiotherapy guidance.**

Examples of exercises you will be asked to perform.

<u>Seated Calf raise</u>

<u>Standing calf raise</u>

Please follow your Physiotherapists advice on how best to start these exercises and how they can be adapted with variations to suit your current ability and strength.

If you feel pain in the tendon area during /after these exercises please inform your Physio as soon as possible and stop the exercise until it can be reviewed.