Recovery

It is usually possible to start light jogging after 12 weeks and return to normal sports by six months. The Achilles is usually thickened after surgery and while this may reduce slightly with time it is normal for it to remain slightly thicker than the other side.

These notes are intended as a guide only and some of the details may vary according to your individual circumstances.

For more information

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RUH **Information for Patients**

Acute Achilles Tendon Rupture

Advice sheet

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The Achilles tendon (or heel cord) is the largest tendon in the human body. It connects the calf muscles (gastrocnemius and soleus) to the heel. This allows you to powerfully raise the heel off the floor during walking and running.

Cause

The tendon usually ruptures without any warning. It is most common in men between the ages of 40-50, who play sports intermittently, such as badminton and squash. There was probably some degeneration in the tendon before the rupture which may or may not have been causing symptoms.

Symptoms

Patients often describe the sensation of feeling as if someone has hit them on the back of the heel only to turn round and find no-one there. After rupture it is usually difficult to walk but often not too painful. A partial tear of the Achilles is rare and so any acute injury to the Achilles should be assumed to be a complete rupture.

It is usually possible to detect a complete rupture of the Achilles tendon on the history and examination. A gap may be felt in the tendon, usually 4-5cm above the heel bone. This is the normal site of injury and is called an intra-substance tear. The tear can occur higher up about 10cm above the insertion into the heel at the site where the muscles join the tendon; this is known as a musculo-tendinous tear. A special test will be performed which involves squeezing the calf. Normally if the Achilles tendon is intact this causes the foot to point downwards but if it is ruptured it causes no movement. To confirm the diagnosis and the exact site of the rupture it may be necessary to perform an Ultra-sound or MRI scan.

Follow-up

You will be seen after approximately two weeks by a nurse when the dressings and stitches will be removed. At this stage a walking brace which has a hinge will be applied. This will allow the ankle to move from 15-45° downwards. It is slightly awkward walking with your foot down but you can put as much weight on the boot as you like.

After two weeks you will be seen again to change the movement in the boot to allow it to come to neutral and also fully bend down. At this stage it is easier to walk fully weight-bearing and you will probably be able to stop using crutches. You can also take the boot off in bed. You will be seen again four weeks later, a total of eight weeks after the operation, to then start physiotherapy and you can discard the boot when the physiotherapist feels that you have enough strength in your calf.

Driving

You should not drive a manual car for at least eight weeks following surgery. After this you should start gradually, to see if you are comfortable. It normally takes a few days to feel confident. If you have an automatic car and have only had the left Achilles operated upon then you may drive after two weeks.

Work

If you have an office based job then it may be possible for you to return after two weeks however it is more advisable to return after eight weeks. If you have a more physical job then it may take 12-16 weeks.

There is a very small chance that the clot may break off and travel to the lungs (pulmonary embolus PE) and this can be dangerous, even life threatening. If you feel that the calf has swollen and painful or you become breathless then seek medical attention immediately.

- Anaesthetic

  Surgery is usually performed under general anaesthetic and so you are asleep. This is incredibly safe but there are exceptional circumstances where an adverse reaction may occur which is dangerous even life threatening.

Discharge Advice

Dressings

Your leg has been dressed with a below knee plaster backslab. This should be left in place until you are seen at your first follow-up appointment after two weeks. The plaster must be kept clean and dry.

Elevation

It is very important that you rest as much as possible and keep your foot elevated. Try to avoid letting it hand down when sitting as this will lead to swelling and pain. This is most apparent within the first two weeks but swelling may occur for up to six months after surgery, especially after sitting or standing for long periods. In bed, pit the foot on a pillow.

Walking

You should not put any weight on the leg for two weeks. A Physiotherapist will show you how to use crutches.

Treatment Options

There are two treatment options available which are non-operative and operative.

Non-operative treatment involves the use initially of a below knee plaster with the foot held fully bent downwards. This usually stays in place for two weeks then is changed for a brace (this is a boot from the knee down to the toes with Velcro straps) which should be worn day and night. The brace will be regularly altered to allow the foot to come up to a more neutral position. The brace will be on for a further 6 weeks. After the eight weeks you will be referred for physiotherapy to regain movement and calf strength but will probably need to wear the brace during the day for a further four weeks. Non-operative treatment avoids the risks of surgery but carries the risk of the tendon re-rupturing, which normally occurs within three months of discarding the brace is 10%. The tendon may also be slightly weaker than after a surgical repair. .

Operative treatment involves a 6cm incision along the inner side of the tendon. The torn ends are then strongly stitched together with the correct tension. After the operation a below knee half cast is applied for two weeks. At two weeks a brace will be applied that will allow you to move the foot and fully weight-bear for a further 6 weeks. After this you will need physiotherapy. Surgery carries the general risks of any operation but the risk of re-rupture is greatly reduced to 2%. The rehabilitation is slightly quicker and the tendon may be slightly stronger than after a non-operative treatment.

The best form of treatment is controversial with good results being obtained by both methods but surgery is generally recommended for patients under 60 years of age who are fit and active with an intra-substance tear. Surgery will also be required if the injury is not diagnosed and treatment initiated within a couple of weeks.

Non operative treatment is generally recommended for less active older individuals or those with a musculo-tendinous tear.

Operation details

Surgery is performed under general anaesthetic and is usually done as a day case. The procedure takes about 30 minutes.

A 6cm incision is made along the inner side of the tendon. The torn tendon is exposed and the two ends are strongly stitched together so that there is the correct amount of tension. There is usually a very small tendon that runs alongside the Achilles which almost invariably remains intact. Sometimes this can be confused by the inexperienced examiner with a partial rupture of the Achilles which is very rare.

The skin is then stitched and a below knee backslab is applied with the foot pointing downwards 20-30°.

Risks of Surgery

- Infection

  This is always a risk when a cut is made in the skin but it is extremely rare. Every possible precaution will be taken.

- Poor Healing

  Although the wound may not be infected it sometimes does not heal well but this is very rare if great care is taken when handling the tissues.

- Nerve damage

  A small nerve travels near to the Achilles which supplies sensation to a small area on the outside of the foot.

  This is very rarely damaged but may leave a tender scar and altered sensation on the outer border of the foot.

- Scar sensitivity

  This is helped by massaging the scar regularly to de-sensitise it.

- Re-rupture

  The chance of the tendon rupturing again is 2%.

- Ankle Stiffness

  Every effort will be made to stitch the tendon at the correct tension but if it is stitched with too much tension then the upward movement of the foot can be slightly limited.

General Considerations

- Swelling

  Feet tend to swell after surgery Excessive swelling causes pain and increases the risk of complications. The best way to prevent this is to elevate the feet as much as possible.

- Smoking

  Smoking leads to a huge increase in surgical risk, particularly affecting wound healing and infection (16 times higher). It is strongly advised that you stop smoking.

- Blood Clot

  A blood clot in the deep veins of the leg (deep vein thrombosis DVT) may occur following foot and ankle surgery but is rare. There are many factors to take into account when considering the level of risk and it may be necessary to give injections or take medication to reduce the risk.