

## Sports Therapy

- Acute and Chronic Injury Rehabilitation
- Overuse Injury Treatment
- Retraining for Return to Sport
- Taping and Bracing
- Pre-season Screening

## Spinal Therapy

- Joint Mobilization and Manipulation
- Exercise Prescription
- Postural Assessment
- Back and Neck Care

## GUNN IMS - Intra-Muscular Stimulation

## Pilates Based Core Stability Training

## ICBC Treatment of Injury Post MVA

## Active Rehabilitation Programs

## WCB Treatment for Work Related Injury

## Worksite Evaluation, Ergonomic Assessment & Wellness Program Development

## Functional Capacity Assessment and Medical Legal Reporting

## Women's Health

- Post Mastectomy
- Urinary Incontinence Training
- Pre and Post Natal Care
- Osteoporosis

## Joint Replacement Program

## Seniors Programs

- Fall Prevention
- Fitness
- Post Surgical

## Respiratory Care

## Arthritis Treatment and Management

## Neurology



# Burrard Physiotherapy

You' re In The Right Hands

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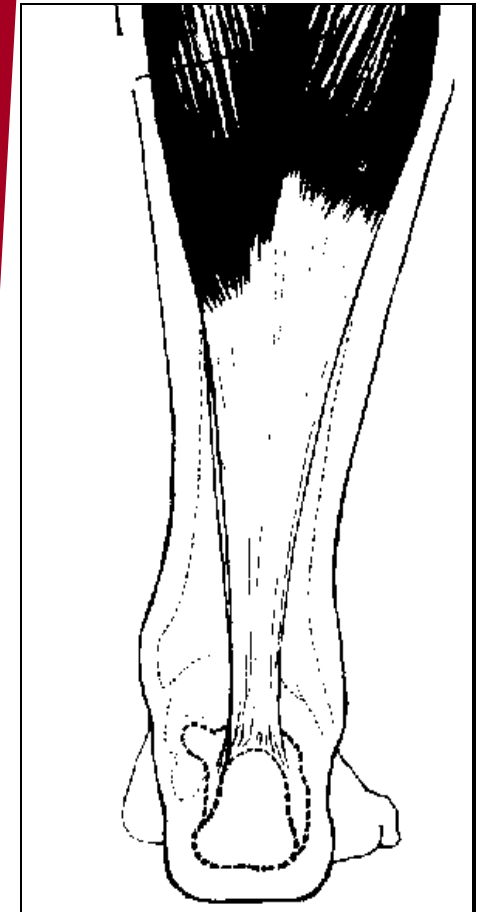
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# ACHILLES TENDONOPATHY

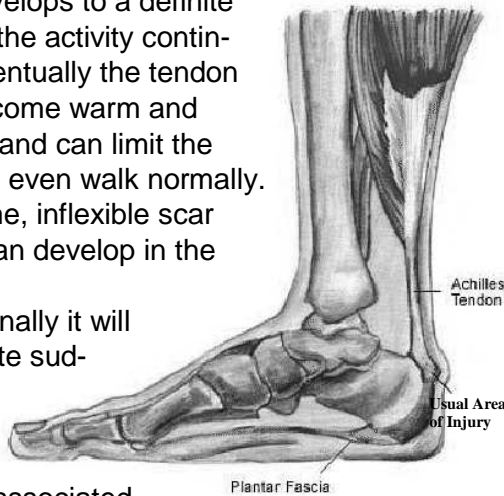


# Achilles Tendonopathy

The Achilles tendon transmits power from the calf muscles (*gastrocnemius* and *soleus*) to the heel and is used extensively in running and jumping sports. Under too much stress from these activities the tendon becomes irritated and inflamed. This *Achilles tendonitis* is one of the more frequent overuse injuries in the lower limb. It is common in all running and jumping sports, ballet dancers, and hikers. It needs to be differentiated from other problems that cause heel pain such as bursitis and impingement syndromes.

## SYMPTOMS

Typical tendonitis is felt 2 - 3 cm above the heel attachment. It often starts slowly, as stiffness felt after a long training session. This develops to a definite pain as the activity continues. Eventually the tendon may become warm and swollen and can limit the ability to even walk normally. Over time, inflexible scar tissue can develop in the tendon. Occasionally it will start quite suddenly and this is usually associated with a sudden, traumatic, partial tearing of the tendon.



## PREDISPOSING FACTORS

Some typical background factors increase the tendency to develop this condition:

**Poor Preparation**—In any running or jumping sport, starting the season without sufficient preparation is a major risk factor. Keep the calf muscles stretched and have some basic cardiovascular fitness before the season begins.

**Training Errors**—Suddenly increasing mileage or hill work especially when combined with failure to warm up correctly and stretch properly. For dancers, sudden increases in jumping or intensity of training.

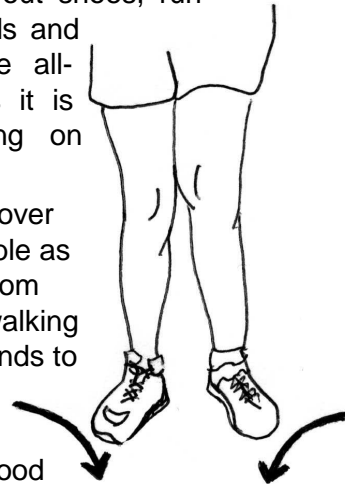
**Footwear and surfaces**—For runners, ill fitting, incorrect or worn out shoes, running on cambered roads and poor running style are all important. For dancers it is often repetitive jumping on hard floors.

**Skeletal variation**—The overpronated foot is vulnerable as the heel is whipsawed from side to side during the walking or running cycle. This tends to be made worse by a turned out running style.

**Age related**—Tendon blood supply reduces and connective tissues and shock absorbing fat pads tend to thin with age. This puts the over 40 athlete at a little more risk.

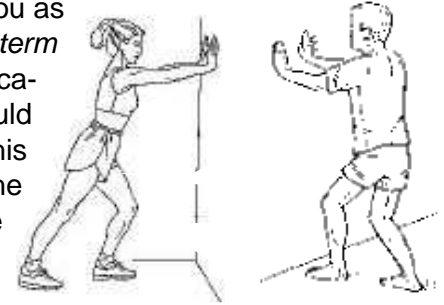
**Direct Trauma**—A previous kick, blow or laceration can weaken the tendon.

**Weakness around the pelvis and trunk muscles** can produce a turned out gait, which tends to increase pronation loading and tendon strain.



## TREATMENT

Prompt assessment and treatment is the key to preventing a chronic tendonitis from developing. At Burrard Physiotherapy Associates, we will carefully examine the injury to the tendon, your footwear, running or walking style and can then advise you as to what *short-term* activity modifications you should be making. This depends on the severity of the tendonitis. A temporary heel raise, tendon taping and ultrasound may be needed to provide rest and speed initial healing. Ice is helpful when used regularly. An ice-pack applied for 15 minutes and repeated 3 times a day is ideal. Your doctor may also prescribe anti-inflammatory medication to reduce pain and swelling. As recovery progresses, heating the calf muscles prior to stretching, followed by ice massage to the tendon is helpful. Eccentric loading of the tendon has recently been proven most effective in dealing with tendonopathy. This type of exercise and others to improve calf strength and tendon flexibility are begun and progressed as quickly as tendon reaction allows. Pain and swelling is the most accurate guide.



*This is most important to prevent recurrence of the injury.*

Return to sport is usually 4-6 weeks. Orthotics (shoe inserts which help to control foot positioning) may be prescribed to help prevent overpronation. An alteration in walking or running style is also often necessary. Our therapists can provide you with expert guidance to ensure a fast and safe recovery. This injury is much more difficult to heal if it becomes chronic and can lead to tendon rupture so *seek early treatment and advice!*