What is causing my hip pain?

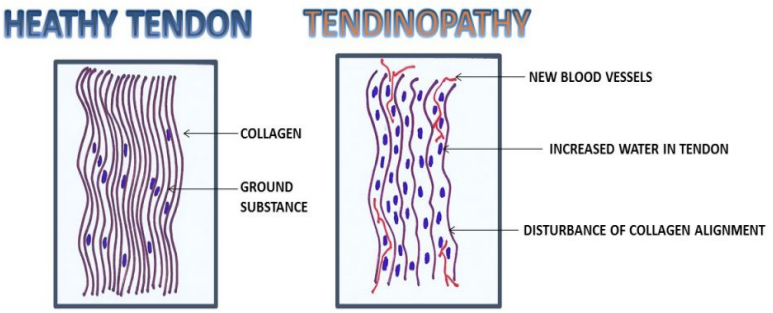
OVENS VALLEY
PHYSIO & PILATES

- The most common cause of lateral hip pain is “Greater Trochanteric Pain Syndrome” (GTPS) and yes, it’s a mouth full.
- GTPS is used to describe pain related to the structures in the **area of the outside hip/thigh**. This includes the:
    - **Gluteus medius tendon,** which attaches the muscle to the greater trochanter (the bony prominence on the outside of the hip)
    - **The trochanteric bursa** is a fluid filled sack, that sits under the tendon to protect the tendon
- The pain is often aggravated by walking, running or going upstairs.
- Compressive loads such as sitting cross legged or lying on your side can also aggravate it
- This condition is most common in runners and women

What is tendinopathy and bursitis?

Tendons are tensile structures in our body that attach muscles to bone. Their role is to transfer the force generated by muscles to act on the bone and create movement. Just like our muscles, tendons respond to load. If you go to the gym and do strength training your muscles will get bigger and **if you load tendons they will become stronger and more resilient to high level forces**.

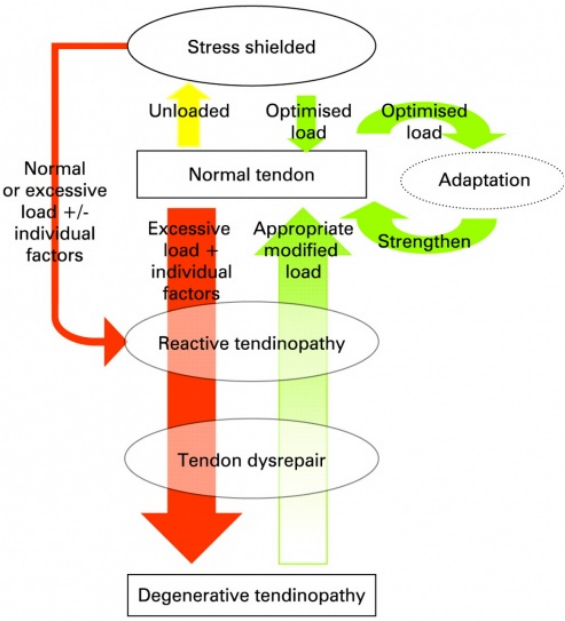
BUT if we load tendons **too quickly,** in the wrong way or with excessive compressive forces, **they can't adapt in time and will malform into a pathological tendon structure.** There is an increase in water content, disturbance of collagen (tendon cells) type and structure as well as ingrowth of nerve and blood vessels in the tendon. All of this contributes to pain and weakness felt in the tendon. **This is called tendinopathy.**



Bursae are fluid filled sacs that we have all over the body and they sit **under tendons to protect them** from compressive loads against the bones they attach to. Sometimes they can become inflamed and this is called bursitis. **Bursitis is usually the secondary effect to tendinopathy.** It is important to note that bursitis is actually **very common in pain free people,** about 50% of 50 year old women with no hip pain at all have bursitis as shown on ultrasound imaging! It was previously thought that bursitis was the main contributor to the pain, but now we know that **tendinopathy is the main driver and that tendinopathy treatment is more effective in resolving the pain.**

How is tendinopathy treated?

Tendinopathy runs on a continuum ranging from a mechanically weak tendon to a healthy, strong, resilient tendon to reactive tendinopathy to tendon dysrepair and finally a degenerative tendon. Depending on the loads applied to the tendon, it will move back and forth on this continuum as pictured.



As you can see, **complete rest results in a weak tendon** rather than just returning to a normal tendon state and therefore is not recommended. Continued inappropriate and **excessive loading will further stress the tendon** towards the degenerative stages. Appropriate and **optimised tendon loading is important to restore normal tendon structure** and **create a healthy resilient tendon.**

How do I fix my hip pain?

- **Load management** is the **MOST IMPORTANT** part of treatment. This might involve adjusting your training sessions, trying cross training, changing the periodisation of weekly sessions or reducing the volume. Then we will gradually build you back up to where you need to be for your goals.
- **A progressive strength program** over a **minimum of 6-12 weeks** is needed to make good strength gains. This needs to be targeted at your specific needs for best results.
- An assessment of your running, squatting or jumping to adjust technique as needed
- **Manual therapy (massage, dry needling etc)** can be a helpful **short term tool** to manage the pain and allow you to perform your rehab program

Do I need to stop running/jumping/training etc?

As physiotherapists it is our job to keep you moving as much as possible, even throughout rehab. **Tendons are very resilient** and s**ome pain associated with your rehab pain is absolutely okay** but we do use pain as a guide to measure the correct load. We stick to **the 4/10 rule**: pain up to a 4/10 during any activity is okay, so long as the pain settles within 1 hour of finishing the activity and is not worse the next day after. Just remember, **if you have minor pain with activity you are not making it worse and it is safe to keep moving!**

Should I take anti inflammatories or have a cortisone injection?

Non-steroidal anti-inflammatory medication (NSAIDs eg. neurofen or voltaren) and cortisone injections (which are strong steroidal anti-inflammatory injections) work by reducing our bodies natural immune response which is causing the inflammation. Remember, inflammation is the body's way of transporting inflammatory mediators (healing cells) to the site of the injury so that we can heal ourselves, pretty cool right? So NSAIDs and cortisone **can be very effective treatments in reducing inflammation** when the body **goes overboard** and causes **too much or persistent inflammation. *Persistent*** bursitis can respond well to NSAIDs or cortisone injections. But because the **bursitis is secondary to the tendinopathy,** if that isn't treated the **bursitis will likely come back.**

In regard to tendinopathy, cellular studies of pathological tendons have shown no trace of inflammation, so despite the old term for tendon pain “tendonitis”, we know that inflammation is not causing the pain. So **anti-inflammatories won't help with the tendon pain.** Cortisone injections **can actually weaken the tendon** and **can cause worse outcomes** later even if short term pain relief is achieved. Because of the potential side effects, in most cases we recommend a **minimum 6-12 week progressive strength program before considering cortisone injections.**

Is there anything I should avoid doing?

Tendons tend not to like being stretched or compressed so avoiding the following can be helpful:

- Sitting cross legged or glute stretches
- Massage directly over the tendon insertion/greater trochanter
- Sleeping on the painful side (instead try sleeping on you back or on the other side with a pillow in between the knees)