## Patellar Tendinopathy ("Jumper's Knee")

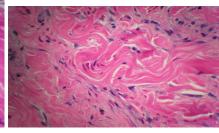
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## **Anatomy**

The patellar tendon attaches the kneecap to the shin bone. It is extremely strong and allows the quadriceps muscle group to straighten the knee. The quadriceps actively straighten the knee to propel an individual off the ground during running and jumping as well as stabilising and decelerating the knee during landing.







## The problem

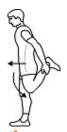
Consequently, this tendon comes under a large amount of stress especially during sports that involve jumping and fast direction changes. With repeated strain, micro tears as well as collagen degeneration can occur in the tendon. The middle picture above shows a normal tendon with collagen fibres aligned in a linear fashion. The picture on the right shows a damaged tendon with disrupted collagen fibres, fragmentation and interspersed blood vessels.

## Management

Recovery from patellar tendinopathy can be slow and a period of rest from the aggravating activities is usually necessary. Your Back in Business Physiotherapist will advise you on the relative rest required and suitable alternative activities. Assessment of other areas is necessary, in particular strength and mobility of the rest of the lower limb, pelvic stability and a spinal assessment and treatment may be required. An appropriate exercise regime is vital for full rehabilitation. Your Back in Business Physiotherapist will show you appropriate exercises that will strengthen the tendon without doing further damage. Your rehabilitation will be tailored specifically for your needs and may include the following:

- Eccentric exercises for the quadriceps. Current research suggests that the use of a 25 degree decline board is more superior than squats on a horizontal surface. Some regimes have single leg, others use double leg squats.
- Muscle strengthening of other weight bearing muscle groups.
- Core/ stability rehabilitation specific to your needs.
- Ice packs for pain management
- Massage therapy
- Dry needling (acupuncture)





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