Patella tendinopathy

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What is it?

Patella tendinopathy is a condition which refers to pain from the tendon which lies just below the knee-cap (patella).

How does it happen?

Patella tendinopathy generally is a condition effecting young athletes (15-30 years old). It results from overuse of the patella tendon particularly from activities which involve jumping and landing. Repetitive use of the muscles on the front of the thigh (quadriceps) or insufficient rest to allow the tendon to heal between sessions can lead to a change in tendon structure.

Other factors may also contribute to the onset of patella tendinopathy by increasing the stress on the tendon. These include reduced muscle flexibility and strength and altered foot posture.

How does it feel?

- Pain is felt initially when performing activities involving jumping and hopping but can become easier as you warm up.
- Pain disappears quickly once the activity is stopped but can often return the day after.
- Pain is rarely present at rest in the early stages but can be become more continuous as the tendinopathy progresses.

How is it managed?

Expert assessment from a Physiotherapist is essential towards the treatment of patella tendinopathy. To begin with, the therapist will be able to provide a diagnosis and determine why the problem initially developed. They will also determine its severity. The most effective way to treat patella tendinopathy is with the prescription of a series specific strengthening exercises. Treatment may also include advice on making changes to your activity levels and soft tissue treatment such as massage and stretching.

What should you do?

Patella tendinopathy generally does not get better by itself especially if you continue to perform activities that put the tendon under too much stress. Doing the right exercise is essential towards improving the tendon's 'stress tolerance'.

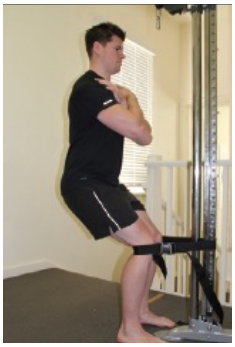
To achieve this it is important you determine whether your tendon is 'irritable' in response to exercise.

- Irritable tendon: pain takes longer than 24hrs to settle after performing jumping activities and is feels greater than 3/10 on a pain scale.
- Non irritable tendon: pain settles within 24hrs after performing jumping activities and is feels less than 3/10 on a pain scale.

If you have an irritable tendon the following isometric exercises are likely to be useful to help settle your tendon pain. These exercises involve holding static positions of the knee joint for up to 45 seconds and are repeated 5 times in a set. This process can then be repeated up to 4 times per day. Perform as pain allows building up to 70% of your maximum.

Knee extension

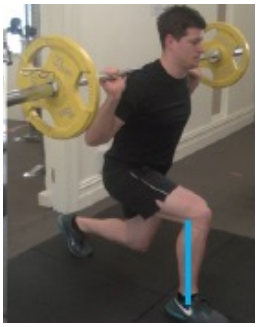
Using either a knee extension machine or resistance band with your bent to around 45 degrees hold this position



Spanish Squat

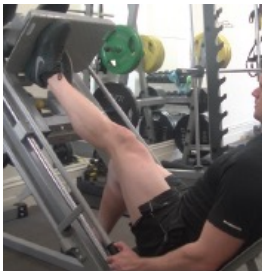
Tie a band around the back of your knee and attach to a stable surface. Sit back and bend your knees towards 90 degrees as if going to sit in chair and hold this position

Once the tendon becomes less irritable the following heavy weighted exercises are likely to be useful to improve the tendons strength. These exercises involve movement of the knee joint and should be performed every other day. This should start with 3-4 sets of 15 repetitions progressing to 3-4 sets of 6 repetitions. The weight used should be heavy enough to make the last repetition difficult.



Split squat
Stand with one leg in front of the other. Lower the weight towards the floor by bending the knees.

Knee extension
Using a knee extension machine bend and straighten the knee



Leg press
Using a leg press machine bend and straighten the knee

How long does it take to get better?

Patella tendinopathy does not generally produce any long term effects if it is correctly diagnosed and appropriately treated. Early diagnosis is essential as this helps to reduce the likelihood of prolonged pain from the tendon and will result in a quicker return to sporting activities.

What shouldn't you do?

If you have been diagnosed with patella tendinopathy you shouldn't ignore the problem. Continuing to perform activities which put the tendon under too much stress may interfere with the healing process and cause your recovery to be prolonged.