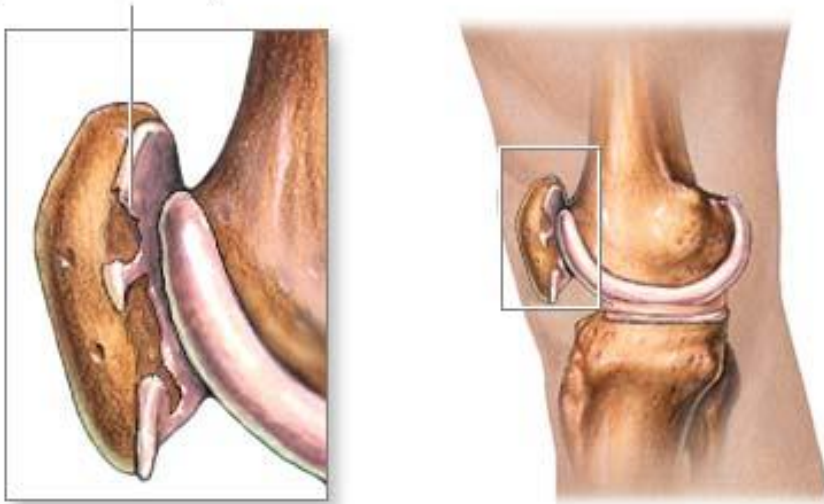


# Chondromalacia Patella



## What is Chondromalacia Patella

Chondromalacia patella  
(runner's knee)



ADAM.

Chondromalacia patellae is the softening and degeneration of the cartilage beneath the kneecap (patella). Under normal circumstances the cartilage is smooth and shiny so it glides smoothly along the thigh bone (femur) as the knee bends.

## What Causes Chondromalacia Patella

Occurs in the over 40's, where the cartilage breaks down due to wear and tear, teenagers, particularly girls, where the cartilage softens due to changing pressures on the knee joint due to growth and muscle imbalances at the knee. Also in activities that require excessive repetitive bending of the knee.

## What are the symptoms

**Main Symptoms** -general tenderness at the knee

- knee pain at the front of the knee that worsens after sitting for a long period
- knee pain that worsens with using stairs and standing up from a chair
- a grating or grinding sensation when the knee is straightened
- knee pain after repetitive bending of the knee

## What will physiotherapy consist of?

**Massage** encompasses a variety of techniques and is given with sufficient pressure through the superficial tissue to reach the deep lying structures. It is used to increase blood flow, decrease swelling, reduce muscle spasm and promote normal tissue repair.

**Mobilisation** is a manual technique where the joint and soft tissues are gently moved by the physiotherapist to restore normal range, lubricate joint surfaces, and relieve pain.

**Ultrasonic Therapy** transmits sound waves through the tissues stimulating the body's chemical reactions and therefore healing process, just as shaking a test tube in the laboratory speeds up a chemical reaction. It reduces tissue spasm, accelerates the healing process and results in pain relief.

**Interferential Therapy** introduces a small electrical current into the tissues and can be used at varying frequencies for differing treatment effects. E.g. pain relief, muscle or nerve stimulation, promoting blood flow and reducing swelling/inflammation.

## Other treatments that may be used

**Laser Therapy** emits beams of light into the tissues of the body, stimulating chemical reactions and having a similar effect to ultrasound though using light energy instead of sound energy.

**Acupuncture** is an oriental technique of introducing needles into the skin to increase or decrease energy flow to promote pain relief and healing.

**Injection Therapy** is a specialist procedure, which needs the consent of your G.P. A non-harmful steroid and local anaesthetic are injected directly into the injured structure. It has a dramatic effect on removing inflammation and promoting healing.

**Taping/Strapping** may be used if thought necessary to restrict abnormal movement and prevent further damage.

**Podiatry** an analysis of the foot mechanics and structure during walking or running and correction as appropriate.

## What should the patient do to help their condition?

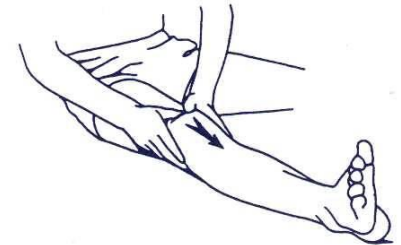
**Active Rest** – keep active but avoid activities that aggravate your condition i.e. any activity that involves heavy or repetitive use of the knee.

**Apply an ice pack** - for a maximum of 20 minutes. A bag of frozen peas wrapped in a damp cloth works well because it moulds to the shape of the knee. Ensure that you do not apply ice directly to the skin as this can cause an ice burn.

**Take ibuprofen/ analgesia** - according to the directions on the packet, up to the maximum daily dose. It is not suitable for people who have a history of stomach ulcers, or for some people with asthma. If in doubt, ask your pharmacist for advice.

**Exercise/Postural programme** – comply with the prescribed exercise/postural programme. Your physio will instruct you as to which of the above exercises to begin with, when to add the others, as well as how to progress the exercises.

1. 2.

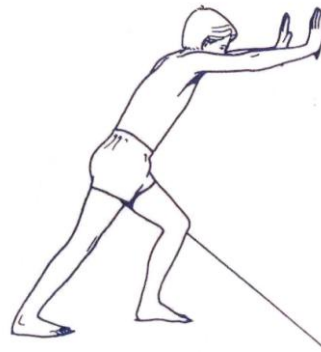
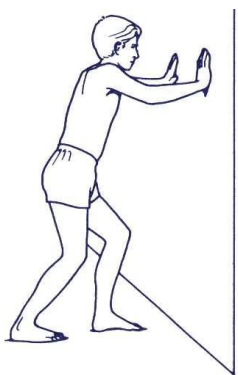


3. 4.



### Exercises 1-4

Gently but firmly push the kneecap in the desired direction then hold for approximately 30 seconds, during this period add gentle overpressures. Do 2 – 3 times daily. (Your Physio will instruct you on which of these to do)



### Exercises 5 - 8

Stretch slowly into the desired direction and then hold for approximately 30 seconds, during this period the stretch should ease and you should keep going further into the stretch without jarring or bouncing.

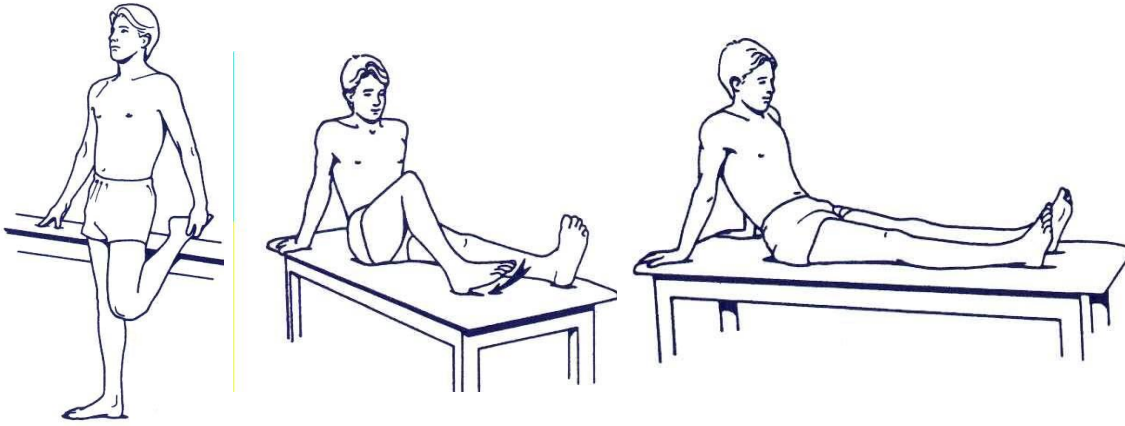
5. Soleus Stretch

6. Hamstring stretch

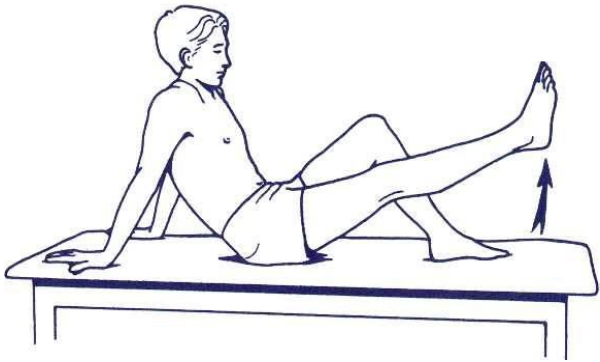
7. Gastrocnemius stretch

## Exercises 9 - 10

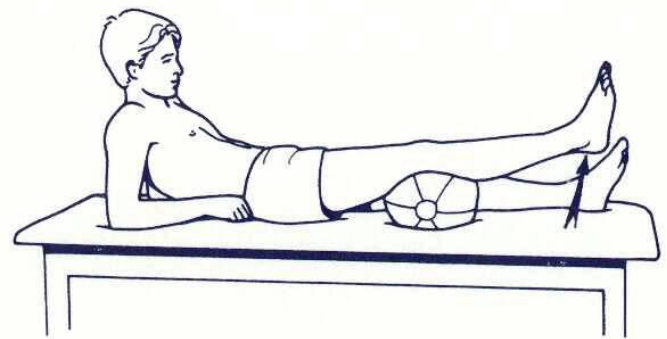
Slowly tighten the desired muscle until you have reached maximum contraction and then slowly release, repeat 5 times and do once or twice daily



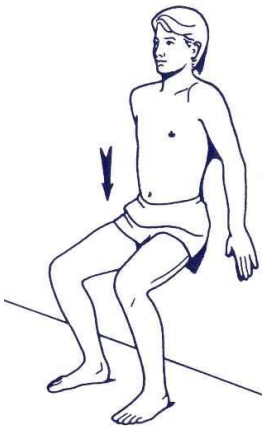
### 8. Quadricep stretch 9. Hamstring strengthening 10. Quadricep strengthening



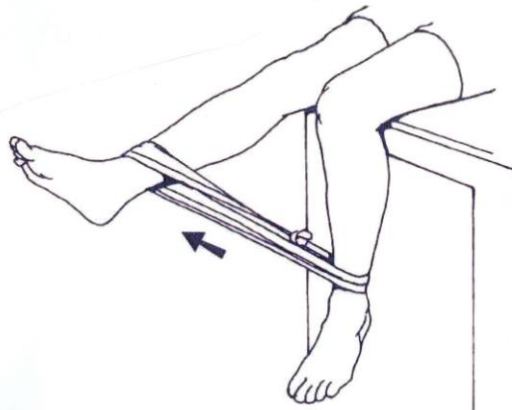
**11. Straight leg raise** – tighten the thigh muscles the and lift the leg, repeat 10 times, do 2-3 times daily muscles. Repeat



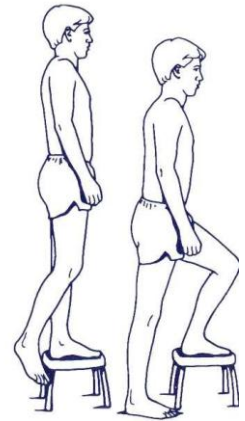
**12. Inner Range quadriceps-** slowly raise foot by tightening the thigh 10 times do 2-3 times daily



**13. Squats** – slide down the wall trying to achieve 90 degrees at the knee, hold for 20 - 30 seconds and do 2-3 times daily.



**14. Quadriceps with elastic-** slowly straighten the leg using the elastic for resistance. Repeat 10 times, Do 2-3 times daily.



**15. Step ups-** slowly step up onto a step ensuring you fully straighten the knee. Repeat 10 times do 2-3 times daily.

**What if physiotherapy does not help or resolve my condition?** It is very rare that physiotherapy does not resolve this condition, in these cases a cortisone injection may be appropriate and in very extreme cases surgery is a possible option. These options can be discussed with your therapist if appropriate