

## Chondromalacia Patella

Chondromalacia literally means softening of the cartilage, and patella means knee cap. Chondromalacia patella means softening of the articular cartilage of the knee cap. The articular cartilage is the cartilage lining under the knee cap that articulates with the knee joint. Normally, it is smooth and shiny, so that it glides smoothly along the articular groove of the femur as the knee bends. Your kneecap or patella sits over the front of your knee joint. As you bend or straighten your knee, the underside of the patella glides over the bones that make up the knee. When it softens, it may break down, causing irregularities along the under surface of the patella.



Strong tendons help attach the patella to the bones and muscles that surround the knee. These tendons are called:

- The patellar tendon (where the kneecap attaches to the shin bone)
- The quadriceps tendon (where the thigh muscles attach to the top of the kneecap)

### Causes

Chondromalacia of the patella can occur in adolescents and young adults, as well as older people. Problems begin when the kneecap does not move properly and rubs against the lower part of the thigh bone. This may occur because of congenital issues such as abnormal position of the knee or flat feet. It may occur because there is tightness or weakness of the muscles on the front and back of the thigh, or an individual is doing too much activity that places extra stress on the kneecap, such as running, jumping or twisting, skiing, or playing soccer.



Chondromalacia of the patella can also be a sign of arthritis of the kneecap, which is usually seen in older people.

People who have previously had a dislocation, fracture, or other injury to the kneecap are more likely to develop chondromalacia.



### Symptoms

The symptoms of chondromalacia patella are generally a vague discomfort of the inner knee area, aggravated by activity or by prolonged sitting with knees in a moderately bent position. Some patients may also have a vague sense of tightness or fullness in the knee area. Occasionally, if chronic symptoms are ignored, the associated loss of quadriceps muscle strength may cause the leg to give way. Besides an obvious reduction in quadriceps muscle mass, mild swelling of the knee area may occur.

## Treatment

Temporarily resting the knee will help alleviate symptoms, as will ingestion of non steroidal anti-inflammatories. This needs to be done in conjunction with exercise to strengthen the quadriceps muscles and hamstrings. People who are prone to chondromalacia patella may also need to change their exercise techniques to avoid putting stress on the affected area. Running on a flat smooth surface or avoiding running altogether and riding a bike or swimming will help. Surgery is only indicated in the presence or severe arthritic change.



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