

DEFINITION

1. **Chondromalacia patellae**, which literally means “soft patellar cartilage”, is characterised by roughening and fibrillation of the articular cartilage of the posterior surface of the kneecap.

CLINICAL MANIFESTATIONS

2. The condition commonly affects adolescents and young adults, and two thirds of cases occur in females. The symptoms occur most commonly in two groups of patients: the first is the rather inactive teenage female, and the second is the highly active male in the late teens and early twenties.
3. Typically, the history is of spontaneous onset of pain behind the patella, the pain being aggravated by sitting with the knees flexed, by activities which involve kneeling and squatting, and by ascending and descending stairs. Some patients experience a feeling of the knee giving way. In active young persons the symptoms are aggravated by activity.
4. It is well known that symptoms are not a reliable guide to the diagnosis of chondromalacia patellae; measurable quadriceps wasting, palpable patello-femoral crepitus and knee joint effusion are strongly suggestive. Radiographs are usually normal, although a tangential view may show irregularity of the patellar articular surface. **Arthroscopy** will reveal the characteristic lesions and establish the diagnosis.
5. Two thirds of cases settle with up to 3 months of conservative treatment, including physiotherapy. In the remaining third, surgical treatment is required to cure persistent pain. It is important to note that follow-up studies have not shown any association between chondromalacia patellae and patellofemoral osteoarthritis.

AETIOLOGY

6. Various studies have shown that **physical trauma** can be a cause of chondromalacia patellae. Some authorities consider it to be the major cause. The type of trauma is usually a direct blow to the front of the knee, but a twisting injury of the knee may also lead to the condition.
7. **Constant and repetitive stresses**, such as overuse of the knee in athletics, may bring about a mechanical breakdown of the surface skin of the articular cartilage, and thereby cause chondromalacia.
8. Chondromalacia patellae is frequently related to a **malalignment of the lower extremity**; this defect results in abnormal stresses to the patella, the ultimate effect of which is damage to the articular surface.

9. In some individuals, there may be a malalignment of the quadriceps, with a laterally riding or chronically dislocating patella which tends to increase the adverse effect of trauma. Various studies on the role of patellar malalignment in the causation of confirmed chondromalacia patellae, as opposed to anterior knee pain syndrome, have been inconclusive.
10. In many cases no underlying cause can be identified.

CONCLUSION

11. **Chondromalacia of the patella** is a condition in which there is roughening and fibrillation of the articular cartilage of the kneecap. It affects adolescents and young adults, females more than males. Some form of physical trauma to the kneecap is the most readily recognised cause, but in many cases no cause is found.

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