

Knee Tracking Problems

The knee cap (patella) is a thick, circular-triangular bone which covers and protects the front surface of the knee joint.

It has a shallow V-shape in cross-section and it runs in a shallow U-shaped groove on the lower end of the thigh bone (femur). Both bones are covered by a layer of smooth, dense cartilage and in normal usage the knee cap slides down the groove when the knee is bent, and up the groove when the knee is straightened.

Several factors can lead to the knee cap being pulled against one side of the groove or another giving rise to rubbing, clicking, inflammation, swelling and pain. This is known as a tracking problem or "patellofemoral malalignment".

If untreated, this constant irritation of the patella against the femur can lead to serious damage of the lining cartilage "chondromalacia patellae" and, eventually, to osteoarthritis.

Several factors can produce a tracking problem, these include the physical angle of the hips, the relative strength of the muscles on either side of the thigh and knee, direct damage to the patella from a fall onto the knee, for instance, the angle and curvature of the shin and the foot position i.e. rolled out too far (over supination), rolled in too far (over pronation), flat feet etc.

Treatment includes re-centring the patella in its groove by appropriate quadriceps exercises under the supervision of a physiotherapist and involve correction of the foot and lower leg position by the use of specially fitted insoles (orthotics) under the supervision of a podiatrist who specialises in Biomechanical Assessment and Gait Assessment.

