

## CHONDROMALACIA

Your knee joint is cushioned with articular cartilage, which covers the ends of bones. As the knee joint moves, the cartilage helps the bones to glide smoothly. Sometimes, the cartilage inside a joint softens and breaks down. This condition is called chondromalacia. The most common location is the backside of the kneecap, also known as the patella. This breakdown or irritation usually begins as a small area of softened cartilage behind the kneecap that can become painful. In severe cases, the damaged cartilage can wear away completely, down to the undersurface of the bone. If this happens, the exposed kneecap's bony surface can grind painfully against the thigh bone. Also, bits of cartilage may break off and float inside the joint, creating "water on the knee" or a swollen joint.

In the knee, chondromalacia is usually related to injury, overuse of the knee, or poorly aligned muscles and bones around the knee joint. Numerous causes have been implicated including:

- Trauma, especially a fracture or dislocation of the kneecap
- An imbalance of the muscles around the knee
- Overuse with repeated bending or twisting of the knee joint, especially during sports
- Poorly aligned muscles or bones around the knee joint

Chondromalacia of the knee affects young adults more than any other age group. It is especially common in runners, joggers, skiers, soccer players, cyclists and other athletes who repeatedly stress their knees. Also, workers who spend a lot of time kneeling – particularly carpet layers, tile setters and floor installers – are more likely to develop this problem.

## SYMPTOMS

The most common symptom of chondromalacia is a dull, aching pain in the front of the knee, behind your kneecap. This pain can get worse with knee flexion, such as when you go up or down stairs. It also can flare up after you have been sitting in one position for a long time. For example, your knee may be painful and stiff when you stand up after watching a movie or after a long trip in a car or plane.

Chondromalacia also can make your knee joint "catch" meaning you suddenly have trouble moving it past a certain point, or "give way". These symptoms tend to occur when you bend your knee repeatedly, especially when you go down stairs. In some cases, the painful knee also can appear puffy or swollen.

Chondromalacia can cause a creaky sound or grinding sensation when you move your knee. However, creaking sounds during bending do not always mean that cartilage is damaged.

## TREATMENT

If we diagnose chondromalacia patella we usually recommend nonsurgical treatments first. These include:

- Applying ice after exercise and as needed for pain or swelling
- Taking a nonsteroidal anti-inflammatory drug, such as ibuprofen (Advil, Motrin and others), to relieve your knee pain and ease any swelling
- Taking other pain relievers, such as acetaminophen (Tylenol), which may also relieve pain
- Starting an exercise program to strengthen the muscles and improve flexibility around your knee
- Avoiding high-impact exercises
- Limiting kneeling and squatting activities
- Using knee tape, a brace or a special patellar-tracking sleeve to keep your kneecap aligned properly
- Physical therapist can be especially helpful to safely guide patients through these treatments.

Simple nonsurgical treatments can relieve knee pain in most people with chondromalacia. If nonsurgical treatment fails, we may consider obtaining a CT scan or MRI for further define the cause of persistent symptoms. When indicated, surgical treatment may be necessary to correct the alignment of the patella or address articular cartilage loss with regenerative treatments or techniques.