What is chondromalacia? [1]

Dear Alice,

My doctor says I have chondromalacia. What is that?

Answer

Dear Reader,

Chondromalacia is a softening and degeneration of the cartilage in the joints of the body. It's unclear which joint you're having trouble with, but the most common joint for this to occur is the knee, and therefore is referred to as chondromalacia patella, also known as “runner’s knee.” Cartilage found under the patella (knee cap) and covering the ends of the femur (thigh bone) and tibia (shin bone) acts as a sort of natural shock absorber. Unfortunately, cartilage doesn’t come with a lifetime guarantee; wear and tear over the years may result in decreased mass of the cartilage. Once enough cartilage has degenerated, the knee can’t adequately absorb or handle shock from activities that involve repeated stress on the knee joint, such as running, for example.

More specifically, chondromalacia is an overuse injury that causes a dull, aching pain under and around the knee cap. It may even feel like the knee is grinding over itself when the joint is flexed and extended. Running, climbing stairs, walking up hills, and even standing for long periods of time may all become painful activities for someone with chondromalacia patella. This knee condition is more common among runners, women, those who have had prior knee injuries, and those who have flat feet. However, any activity that places frequent pressure on the knee joint, such as skiing, cycling, and playing soccer, increases the risk for the condition.

As far as joints go, the knee is the largest one in the body. It's also multi-talented, acting as a hinge, a lever, and a shock absorber at any given time. To support these endeavors, the knees rely almost entirely on soft tissues (ligaments, tendons, muscles, and of course, cartilage), which aren’t always the most reliable. With this in mind, there are some factors you might consider to prevent (further) knee injury and pain:

- **Rest your knees.** The goal of treatment is often to reduce pressure on the knees, so staying off your feet for a few weeks is usually the first line of treatment. This may involve taking a break from any activity, say racquetball or running, that causes you a great deal of
pain.

- **Wear supportive shoes.** This is especially helpful when you’re physically active in order to support proper alignment of the foot.

- **Be mindful of safety during physical activity.** If you ride a bike, having your seat is up high enough so that your knees are only slightly bent at the bottom of each pedal stroke is beneficial. If you’re a runner, it’s wise to avoid running on uneven surfaces as much as possible to lower your risk of falling or twisting your knee.

- **Switch to an “easy on the knees” sport,** such as swimming, slow jogging, walking, and cross-country skiing for a while. If you choose swimming, it’s good to know that strokes involving bent knees, such as the frog kick will put more stress on your knees than those strokes that use a straight-leg, flutter kick (such as freestyle and backstroke).

- **Visit a health care provider.** They’ll likely check your feet to make sure that they aren’t contributing to a misalignment of your body that puts undue stress on one knee over the other. If you have the chance to see a physical therapist, you may want to ask them to evaluate the way you walk or determine the need for shoe inserts.

Lastly, it’s extremely helpful to strengthen the muscles in your leg, especially those that support your knee. This includes working out the quadriceps, hamstrings, adductors, and abductors. Strengthening the leg as a whole may help improve your muscle strength and balance, which in turn helps prevent knee misalignment. It’s also best not to favor one muscle group over another as this also has the potential to lead to injury. Remember, the knee doesn't have much of a support system, so it's a good idea to build up what it does have. Your health care provider may have some leg strengthening exercises to show you or offer you a referral to see a physical therapist or orthopedist to get more targeted advice. Until then, the American Academy of Orthopaedic Surgeons [2] may also have some ideas to point you (and your knee) in the right direction. With that, good luck to you and your joints!

Alice!

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