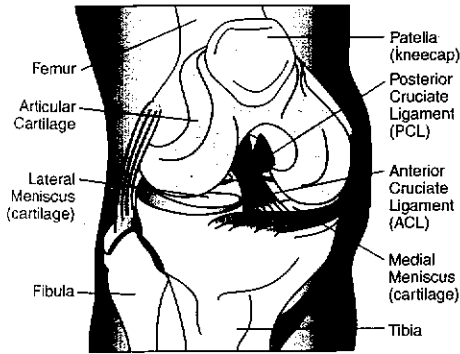
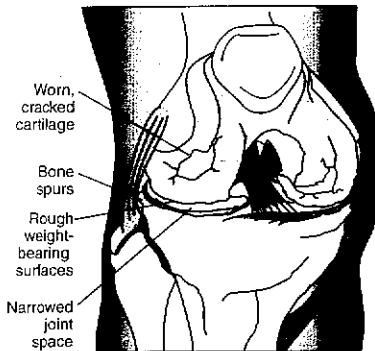




KNEE PAIN – ARTHRITIS



Normal knee



Arthritic knee

Knee pain can have many causes, but there are three that seem to be most common; torn cartilage, arthritis, and problems with the kneecap. Here we will discuss how arthritis of the knee can be diagnosed and treated. Information sheets are also available on knee pain from torn cartilage or kneecap problems.

The surfaces of the bones in the knee are covered with a layer of white, smooth cartilage (*articular cartilage*) that provides a very smooth, low-friction gliding surface for the joints. Arthritis is the wearing out of this layer. It can have many causes such as an old injury or excessive body weight. In some people, it may be genetic in origin and due to an inflammatory process rather than just a result of the aging process or other mechanical causes.

Arthritis in the knee causes a dull aching pain that often gets worse throughout the day depending on how active you are. It doesn't hurt more with bending or pivoting or have the sharp "pinching" you would have with a torn cartilage (*meniscus*, see information sheet on KNEE PAIN – Torn Cartilage), but it can be more painful in wet and cold weather.

Arthritis is diagnosed with standing x-rays of the knee in both straight and slightly bent positions. The cartilage appears on standing x-rays as a space between the thigh (*femur*) and the shin (*tibia*) bones. If the x-rays show this space has narrowed, especially if there are bone spurs present, then the pain is probably due to arthritis instead of a torn cartilage.

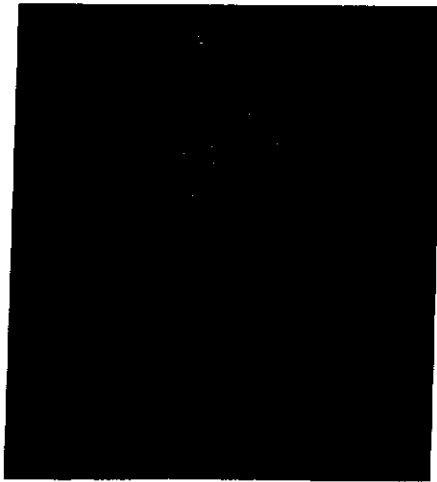
Treatments for an arthritic knee usually start with medications—anti-inflammatory medications, and glucosamine with chondroitin sulfate—as well as knee support with a neoprene (wetsuit rubber) or elastic cloth sleeve. If this is not helpful and only the right or left half of the joint is worn down, then an athletic brace may be helpful. The brace helps straighten the knee so the weight is shifted to the part of the joint that still has normal cartilage. However, this is not a long-term cure as it only helps while the brace is being worn. It can be of help to people who need to put off an artificial knee because of their age or can't take time off work for recovery from knee surgery.

continued on back

Knee Pain – Arthritis, *continued from front*



X-Ray of normal knee



X-Ray of arthritic knee

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Another treatment option is the injection of cortisone to block the pain. This has proven to be the most effective treatment over a number of years, but frequent injections of cortisone can destroy even a healthy young knee. Cortisone injections are therefore limited to no more than one or two in the same joint each year.

Another injection that might be helpful is Viscosupplementation—a long word for a knee “lubricant” that is thick and oily (*viscous*). Arthritis will cause a joint lining to produce more fluid than normal, but it is thin and watery. A Viscosupplementation injection is like a “lube job” on the knee to restore the normal, “healthy” fluid. This treatment averages a two-thirds chance of making a knee two-thirds better for about six months. How much better varies greatly, from “not at all” to 100% better for up to a year. It’s a new treatment and has only been approved by the FDA for application in the knee. Use on other arthritic joints is considered “off label” usage.

Three Viscosupplementation medications are currently available. They are usually injected into the knee weekly for three to five weeks. This would be recommended for a patient who has mild to moderate arthritis but not for a patient with total collapse of the joint. The injections are given under local anesthesia in the office, they usually aren’t very painful, and they don’t limit activity. After the third injection, it takes about six to nine weeks to find out whether they were of benefit. The only known risk is an allergic reaction in a patient who has allergies to chicken products.

Arthroscopic surgery can be performed to trim up and remove any loose flaps or bits of the cartilage in the joint (*debridement*), but this alone is usually not helpful or lasting. Patients can have moderate arthritis as well as evidence, from an MRI scan, of a torn cartilage (*meniscus tear*, see information sheet on Torn Cartilage). If a cortisone injection helps relieve the pain for a week or more, then the pain is probably arthritic and arthroscopic surgery wouldn’t be of much long-term help. If the injection doesn’t help much and only lasts a few days, then the pain is probably from the torn cartilage and surgery is more likely to help.

Hopefully, this information has been interesting and helpful to you. As with any general information, some of it may not apply to your case and it is not intended to take the place of an orthopedic evaluation and personalized treatment plan. If you still have questions, please do not hesitate to discuss them with Dr. Nickel.

