### STEVEN CHUDIK MD

## SHOULDER, KNEE & SPORTS MEDICINE

# **Meniscal Cyst**

The meniscus is a cartilage structure in the knee that sits on top of the leg bone (tibia). Each knee has two menisci, an inner and outer meniscus. The meniscus functions:

- like an adaptor between the rounded thigh bone (femur) and flat tibia
- serves to help distribute the forces between the two bones over a greater area (rather than point to point)
- helps supply nutrition to the cartilage that lines the bones (articular cartilage)
- helps stabilize the knee.

Each individual meniscus can be torn, especially as one gets older. A meniscal cyst is the result of a degenerative meniscal tear. A degenerative meniscal tear causes joint irritation that results in fluid being produced. The excess fluid can push out the joint capsule, causing a firm cyst through a one-way valve.

# **Frequent Signs and Symptoms**

- Occasionally, a painless bump
- Pain, especially with standing on the affected leg, and tenderness along the joint of the knee
- Firm bump at the cyst, usually at the outer side of the knee; often more apparent when the knee is straight and may get smaller or disappear when the knee is bent
- Swelling within the knee
- Locking of the knee joint, causing inability to straighten the knee completely
- · Giving way or buckling of the knee

## **Etiology (Causes)**

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Meniscal cysts are usually seen with meniscal tears that occur with aging, although there may be an associated injury to the knee (pivoting or twisting injury). Kneeling or squatting may also cause tears of the meniscus.



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Meniscus

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#### **Risk Factors**

- Contact sports (football), sports in which cleats are involved with pivoting (soccer), and sports in which good shoe grip and sudden change in direction are required (squash, racquetball, basketball)
- Previous knee injury
- Associated knee injury, particularly ligament injuries
- Poor physical conditioning (strength and flexibility)

#### **Prevention**

- Appropriately warm up and stretch before practice or competition.
- Maintain appropriate conditioning:
  - Thigh, knee, and leg strength
  - Flexibility and endurance
- For jumping or contact sports, protect vulnerable joints with supportive devices, such as wrapped elastic bandages, tape, or braces (these have not been proven effective).
- Wear proper protective equipment and ensure correct fit, including the proper length cleats for the surface.

#### **Outcomes**

Most meniscal injuries do not heal, but they may not cause any symptoms; some cysts do not hurt. These usually do not need treatment. However, the only definitive treatment for meniscal tears requires surgery. Surgery may provide complete healing in six weeks.

### **Potential Complications**

- Frequent recurrence of symptoms, resulting in a chronic problem
- Repeated knee injury, particularly if sports are resumed too soon after injury or surgery
- Progression of the tear (the tear gets larger) or cyst size if untreated
- Arthritis of the knee in later years (with removal of tear or without surgery)
- Complications of surgery, including infection, bleeding, injury to nerves (numbness, weakness, paralysis), continued pain, giving way, locking, nonhealing of meniscus (if repaired), need for further surgery, knee stiffness (loss of motion), and recurrence of cyst
- Erosion of bone and joint due to pressure from the cyst
- Injury to nerves due to pressure from the cyst



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#### **Treatment Considerations**

Initial treatment consists of medications and ice to relieve pain and reduce the swelling of the knee. Your physician may recommend removing the fluid from the cyst with a needle and injecting cortisone into the cyst. Surgery is often recommended as definitive treatment. Arthroscopy to remove the meniscal tear is the procedure of choice. The cyst may be removed surgically at that time by making an incision over it and excising it. Often just removing the meniscal tear allows the cyst to decompress (shrink) and disappear without other treatment. Your surgeon may recommend removing the cyst fluid with a needle and syringe at the time the meniscal tear is removed. After surgery, stretching and strengthening of the injured, stiff, and weakened joint and surrounding muscles are necessary. These may be done with or without the assistance of a physical therapist or trainer.

#### **Possible Medications**

- Nonsteroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take
  within seven days before surgery), or other minor pain relievers, such as acetaminophen,
  are often recommended. Take these as directed. Contact your physician immediately if any
  bleeding, stomach upset, or signs of an allergic reaction occur.
- Your physician may prescribe pain relievers as necessary. Use only as directed.
- Cortisone injections reduce inflammation and may reduce the cyst size. However, there is a limit to the number of times cortisone may be given because it weakens muscle and tendon tissue.

## **Modalities (Cold Therapy)**

Cold is used to relieve pain and reduce inflammation. Cold should be applied for 10 to 15 minutes every two to three hours for inflammation and pain and immediately after any activity that aggravates your symptoms. Use ice packs or an ice massage with a cloth between the ice and your skin to prevent burning /freezing your skin.

**Notify My Office If Symptoms Worsen** 



