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Original Article: <http://www.mayoclinic.com/health/bakers-cyst/DS00448/DSECTION=symptoms>

Baker's cyst

Definition

A Baker's cyst is a condition in which you experience a bulge and a feeling of tightness behind your knee. The pain gets worse when you fully extend your knee or when you're active.

A Baker's cyst, also called a popliteal cyst, is usually the result of a problem with your knee joint, such as arthritis or a cartilage tear. Both conditions can cause your knee to produce too much fluid, which can lead to a Baker's cyst. Up to one in five people with other knee problems may develop a Baker's cyst.

Although a Baker's cyst may cause swelling and make you uncomfortable, treating the probable underlying problem usually provides relief.

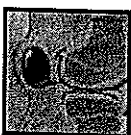
Symptoms

In some cases, a Baker's cyst causes no pain and may go unnoticed. If you do experience signs and symptoms, you may notice:

- Swelling behind your knee, and sometimes in your leg
- Knee pain
- Stiffness

Causes

CLICK TO ENLARGE



Baker's cyst

A door hinge needs oil to swing smoothly, to reduce the friction between its moving parts and to minimize wear and tear. Similarly, the cartilage and tendons in your knees rely on a lubricating fluid called synovial (si-NO-vee-ul) fluid. This fluid helps your legs swing smoothly and reduces friction between the moving parts of your knees.

Synovial fluid circulates throughout your knee and passes in and out of various tissue pouches (bursae) throughout your knee. A valve-like system exists between your knee joint and the bursa on the back of your knee (popliteal bursa). This regulates the amount of synovial fluid going in and out of the bursa.

But sometimes the knee produces too much synovial fluid. Most commonly this is caused by an inflammation of the knee joint, such as occurs with various types of arthritis. A knee injury, especially a cartilage tear, also is a common cause of Baker's cyst.

When the popliteal bursa fills with fluid and expands, the result is a bulge called a Baker's cyst. In texture, it's similar to a balloon filled with water.

When to seek medical advice

If you're experiencing pain and swelling behind your knee, see your doctor to determine the cause. Treating the underlying condition, such as arthritis or a cartilage tear, usually relieves the swelling and discomfort of a Baker's cyst.

Though unlikely, a bulge behind your knee may be a tumor or a popliteal artery aneurysm rather than a fluid-filled cyst.

Tests and diagnosis

A noninvasive imaging test, such as an ultrasound or a magnetic resonance imaging (MRI) scan, can help distinguish a simple cyst. If your doctor suspects a blood clot in your leg (deep vein thrombosis) or an aneurysm, he or she may suggest an ultrasound of your leg or other tests.

Complications

Rarely, a Baker's cyst bursts and synovial fluid leaks into the calf region, causing sharp pain in the knee, swelling and sometimes redness of the calf. These signs and symptoms closely resemble those of a blood clot in your leg. If you have swelling and redness of your calf, you'll need prompt

medical evaluation, because a blood clot may require urgent treatment.

Treatments and drugs

Many times, no treatment is required and a Baker's cyst will disappear on its own.

If the cyst is very large and causes a lot of pain, your doctor may use the following treatments:

- **Physical therapy.** Icing, a compression wrap, and crutches may help reduce pain and swelling. Gentle range-of-motion and strengthening exercises for the muscles around your knee may also help to reduce your symptoms and preserve knee function.
- **Fluid drainage.** Your doctor may drain the fluid from the knee joint using a needle. This is called needle aspiration and is often performed under ultrasound guidance.
- **Medication.** Your doctor may inject a corticosteroid medication, such as cortisone, into your knee to reduce inflammation. This may relieve pain, but it doesn't always prevent recurrence of the cyst.

Typically though, doctors treat the underlying cause rather than the Baker's cyst itself.

If your doctor determines that a cartilage tear is causing the overproduction of synovial fluid, he or she may recommend surgery to remove or repair the torn cartilage.

In some instances, particularly if you have osteoarthritis, the cyst may not go away even after your doctor treats the underlying cause. If the cyst doesn't get better, causes pain and interferes with your ability to bend your knee, or if — in spite of aspirations — fluid in the cyst hinders knee function, you may need to be evaluated for surgery to remove the cyst.

Lifestyle and home remedies

If your doctor determines that arthritis is causing the cyst, he or she may advise you to take some or all of the following steps to reduce the inflammation and lessen the production of synovial fluid:

- **Follow the P.R.I.C.E. principles.** These letters stand for protection, rest, ice, compression and elevation. Protect your leg by using crutches to take the weight off the knee joint and to allow pain-free walking. Rest your leg. Ice the inflamed area. Compress your knee with a wrap. And elevate your leg when possible, especially at night.
- **Try nonsteroidal anti-inflammatory drugs (NSAIDs) or**

acetaminophen. NSAIDs such as aspirin, ibuprofen (Advil, Motrin, others), naproxen (Naprosyn, Aleve, others) and similar drugs can help relieve pain, as can acetaminophen (Tylenol, others). Prescription NSAIDs can provide higher dosages and greater potency than over-the-counter NSAIDs.

- **Scale back your physical activity.** Doing so will reduce irritation of your knee joint.

By Mayo Clinic Staff

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