

Popliteal Cysts

Last Updated Friday, 28 July 2006

Introduction

A popliteal cyst, also called a Baker's cyst, is a soft, often painless bump that develops on the back of the knee. A cyst is usually nothing more than a bag of fluid. These cysts occur most often when the knee is damaged due to arthritis, gout, injury, or inflammation in the lining of the knee joint. Treatment is usually successful when the actual cause of the cyst is addressed. Otherwise, the cyst can come back again.

This guide will help you understand

- how a popliteal cyst develops
- why a cyst can cause problems
- what can be done for the condition

Anatomy

What is a popliteal cyst?

The knee joint is formed where the thighbone (femur) meets the shinbone (tibia). A slick cushion of articular cartilage covers the surface ends of both of these bones so that they slide against one another smoothly. The articular cartilage is kept slippery by joint fluid made by the joint lining (the synovial membrane). The fluid is contained in a soft tissue enclosure around the knee joint called the joint capsule.

A popliteal cyst is a small, bag-like structure that forms when the joint lining produces too much fluid in the knee. The extra fluid builds up and pushes through the back part of the joint capsule, forming a cyst. The cyst squeezes out toward the back part of the knee in the area called the popliteal fossa, the indentation felt in the back part of the knee between the two hamstring tendons and the top part of the calf muscle. Most people will be able to feel the cyst in the hollow area right behind the knee joint.

Related Document: [A Patient's Guide to Knee Anatomy](#)

Causes

Why does a popliteal cyst develop?

A popliteal cyst may form after damage to the joint capsule of the knee. The weakening of the joint capsule in the damaged area can cause the small sac of fluid to form. This can lead to a bulging of the joint capsule, much like what occurs when an inner tube bulges through a weak spot in a tire. The cyst may become larger over time.

A popliteal cyst can actually be a response to other conditions that cause swelling in the knee joint. This swelling is most often from problems of osteoarthritis or rheumatoid arthritis in the knee joint. It can also be caused by trauma, either from a direct blow to the knee or from repetitive activities that lead to overuse in the knee joint. A popliteal cyst is not from of a blood clot in the leg, although sometimes it can be mistaken for a blood clot.

Symptoms

What does a popliteal cyst feel like?

The symptoms caused by a popliteal cyst are usually mild. You may have aching or tenderness with exercise or your knee may feel unsteady, as though it's going to give out. You may feel pain from the underlying cause of the cyst, such as arthritis, an injury, or a mechanical problem with the knee, for instance a tear in the meniscus. Along with these symptoms, you may also see or feel a bulge on the back of your knee. Anything that causes the knee to swell and more fluid to fill the joint can make the cyst larger. It is common for a popliteal cyst to swell and shrink over time.

Sometimes a cyst will suddenly burst underneath the skin, causing pain and swelling in the calf. A ruptured popliteal cyst gives symptoms just like those of a blood clot in the leg, called thrombophlebitis.

For this reason, it is important to determine right away the cause of the pain and swelling in the calf. Once the cyst ruptures, the fluid inside the cyst simply leaks into the calf and is absorbed by the body. In this case, you will no longer be able to see or feel the cyst. However, the cyst will probably return in a short time.

Diagnosis

How do doctors identify a popliteal cyst?

Your doctor will ask you to describe the history of your problem. Then the doctor will examine your knee and leg. A physical exam is usually all that is needed to diagnose a popliteal cyst. Unless the cyst has ruptured, further testing is typically not needed.

If the cyst has ruptured, additional tests will be required. Regular X-rays will not show the cyst since it is a soft tissue, and X-rays show mostly bones. A cyst can be seen with a magnetic resonance imaging (MRI) scan. The MRI machine uses magnetic waves rather than X-rays to create pictures that look like slices of the area your doctor is interested in. This test requires no needles or special dye and is painless. Your doctor may order an ultrasound test. This test uses sound waves to allow the doctor to see the outline of the cyst and determine whether it is filled with fluid or solid tissue. This is useful in determining whether the lump could actually be a tumor instead of a fluid-filled cyst.

Treatment

What can be done for the condition?

There are two types of treatment for popliteal cysts: surgical and nonsurgical. Whether or not the cyst has ruptured, how painful the cyst has become, or how much it interferes with the normal use of your knee will determine which is the best course of treatment for you. In adults the treatment is most often nonsurgical. If surgery is needed, it is usually done on an outpatient basis, meaning you can leave the hospital the same day. Unless there is a lot of discomfort from the cyst, surgery is rarely required.

Nonsurgical Treatment

Drawing the fluid out with a needle and syringe can reduce the size of the cyst. Then cortisone can be injected into the affected area to reduce inflammation. These are usually temporary solutions, however. Nonsurgical treatment also includes rest and keeping your leg propped up for several days.

In some cases doctors have their patients work with a physical therapist who uses massage treatments, compression wraps, and electrical stimulation to reduce knee swelling. Flexibility and strengthening exercises for the lower limb may be used to help improve muscle balance in the knee.