**OVERVIEW**

Your child has been diagnosed with a popliteal cyst, which is sometimes called a Baker’s cyst. A popliteal cyst is a collection of fluid which forms behind the knee joint. In children, it is typically found incidentally during dressing or bathing. It does not cause pain or other problems. With time, the cyst will typically resolve and disappear spontaneously.

**BACKGROUND**

The cause of the popliteal cyst is not known. For some reason, a fluid collection develops with fluid from the adjacent knee joint or from the bursa underneath the medial hamstring tendons. Generally, the body will reabsorb fluid that leaks, but it may be that flow into the cyst is faster than the body can absorb it. Scientists suspect that there is a weak spot in the joint capsule or bursal lining that is acting like a one-way valve mechanism, that lets fluid flow into the cyst but limits back flow. For otherwise healthy children, the cyst is usually an isolated finding. It is likely that the cyst, or the potential space for the cyst, or the weak spot that allows it to form, was present from birth. Adults with popliteal cysts are different in that most often the cyst is found in conditions where there is chronic swelling or fluid accumulation in the knee joint. These conditions include knee arthritis, meniscus injuries, and ligamentous injuries. For adults, treatment of a cyst resulting from a problem within the knee must be directed primarily at treating the underlying problem.

**CLINICAL PRESENTATION AND DIAGNOSIS**

The usual presenting complaint is that of a mass behind the knee. It often arises gradually and may be fairly large when first noticed. Occasionally, a cyst is found after a mild injury to the knee, but the cyst was most likely there prior to the injury. Complaints of pain are unusual and, unlike adults, there should be no signs or symptoms of internal derangement inside the knee. Physical examination reveals a firm, cystic mass in the popliteal fossa, often medially located and usually distal to the popliteal crease. It is most prominent when the knee is hyperextended and the patient is prone. A simple diagnostic test is transillumination of the cyst. The cystic nature can be confirmed by darkening the exam room and placing a flashlight against the cyst. A cyst brightly transilluminates while a solid tumor does not. Ultrasound can be useful if it is difficult to distinguish a soft fluid filled mass from a solid mass. MRI studies can
be done, but are usually not necessary. Sedation is usually necessary and risks and expense of an MRI with sedation is generally not warranted if the exam and history are clear.

**TREATMENT**

In the vast majority of cases popliteal cysts should be left alone. When the features are typical and plain radiographs are normal, further diagnostic studies are not indicated. Over a time period ranging from months to a few years, the cyst will usually resolve. While surgical removal is possible, it is often fraught with problems and frequently there is recurrence of the cyst. One study followed 120 popliteal cysts in children. Over 70% of the cysts spontaneously resolved over a mean of 20 months, while 42% of surgically treated cysts recurred. Three children had more than one additional operation, and one child had five surgeries with the cyst still persisting. Surgical excision of a popliteal cyst is indicated only when symptoms are severe and limiting and have not resolved with at least several months of non-operative care.

**EXPECTED OUTCOMES**

For children, a popliteal cyst will typically spontaneously disappear. It is uncommon for a cyst to be symptomatic or cause problems. Frequently, parents will note that a cyst gets bigger and this worries them. However, there is little correlation between the size of the cyst and the outcome. The cyst fluid is likely to ebb and flow as fluid is pumped in and the body tries to reabsorb it. With time and patience, popliteal cysts will usually take of themselves.

**MORE INFORMATION**

Further information can be obtained on the internet. Your local public library can help you explore these sources if you are interested. Two good sites for expert and peer reviewed information are the American Academy of Orthopedic Surgeons at [www.aaos.org](http://www.aaos.org) and [www.emedicine.com](http://www.emedicine.com).

**FEEDBACK**

If you have questions or comments, please contact the office or submit them to the web site at [www.pedortho.com](http://www.pedortho.com).