

## Unicameral (Simple) Bone Cyst

A unicameral bone cyst (UBC) is a fluid-filled cavity found within a bone. It is a benign (non-cancerous) condition. They are usually found in patients younger than 20 years of age. The location of the cysts tends to be in the upper arm (proximal humerus) or thighbone (proximal femur). There is no known cause for these cysts but typically only involve one location.



### **Symptoms**

Most unicameral bone cysts have no symptoms. Most are discovered incidentally or after the bone breaks. This often occurs with less trauma than is normally required to fracture a bone. If the cyst is thinning the bone, there may be pain with activities. If there is a pathologic fracture through the cyst, the affected arm or leg may have pain, swelling, and deformity.

### **Diagnosis**

A doctor will be able to diagnose a unicameral bone cyst. He or she may use plain X-rays to show a hollow cavity in the bone. After a fracture it is common for a portion of the bone to settle to the bottom of the cyst, this is referred to as a “fallen leaf sign” If the UBC is not typical in its appearance, a computed tomography (CT) scan or magnetic resonance image (MRI) may help determine the architecture of the bone.

### **Nonsurgical Treatment**

A unicameral bone cyst without pain or other symptoms that the doctor discovers when evaluating another problem can often be watched with repeated X-rays and doctor examinations. When the bone fractures through a cyst, the cyst often times goes away as part of the healing response.

### **Surgical Treatment**

Surgery may be needed if the cyst is in a location that might cause the bone to break or if the cyst enlarges over time and is painful. Cysts that have fractured several times are also often treated surgically. Treatment can vary widely based on symptoms and location. The least invasive treatment involves draining the cyst (aspiration) and injecting it with a steroid. This method of treatment typically requires more than one aspiration/injection. Other treatments involve filling the cyst cavity with synthetic bone fillers or bone from a bone bank. This is often done in conjunction with a decompression of a cyst with a screw or flexible rod that goes inside of the bone.



A unicameral bone cyst in a structurally compromising location (thighbone) may need surgery including scraping the inside of the bone (curettage) and stabilization with plates and screws.