OVERVIEW
A ganglion cyst is a fluid-filled sac that is usually attached to either a tendon sheath or a joint lining. Ganglion cysts usually appear on the back of the wrist, although they may be on the underside of the wrist, the hand, the fingers, or the feet. Ganglion cysts are always benign.

CAUSES
The cause is unknown. Wrist ganglions are one of the most common soft tissues masses seen in the arm. Risk factors for a ganglion cyst include: being female, age between 20-50 years old, and participating in gymnastics. Dorsal wrist ganglia are most common, generally originating from the scapholunate ligament of the wrist, representing 60-70% of all ganglion cysts. The palmer side of the wrist is the next most common site representing 20% of all ganglion cysts. The flexor tendon sheath of the fingers is involved in 10-12% of ganglion cysts.

DIAGNOSIS
Cysts are usually found by patients with a gradual appearance of a soft bump, usually on the back of the wrist. There may or may not be tenderness at the site of the bump. The doctor will ask about symptoms and medical history, and perform a physical exam. Most ganglion cysts are easily diagnosed based on their location and appearance. One of the key aspects of the examination is to assess the density of the cyst, using a pen light to see if there is transillumination. A fluid-filled cyst will transmit light, while a solid mass or scar tissue will not. The doctor may want use a small needle to remove some of the cyst’s fluid for testing. An x-ray may be done to assess the underlying wrist joint. If there is something unusual about the appearance of location, an MRI scan may be done which uses magnetic waves to make pictures of structures inside the affected area.

TREATMENT
A ganglion cyst is a benign tumor. It does not need to be treated unless there is discomfort or the appearance is unacceptable. Most ganglions do not pose a serious health risk, and can be simply left alone. Many ganglions go away on their own. Roughly half of wrist ganglions eventually go away with time and no treatment.

If there is pain at or near the cyst, it is important to
identify the cause of the pain. If there is tendonitis or wrist joint arthritis pain, these should be managed appropriately. If pain is directly related to the cyst, symptomatic care is often valuable. Using a splint, taking non-steroidal anti-inflammatory medications, and/or using ice/heat/massage can address the pain. If the pain improves with these simple measures, the cyst does not need to be treated.

Some people, following non-medical advice, will smash the lump with a big heavy book and try to rupture the cyst. Sometimes this works, but it is not recommended. The lump can come back even if it has been successfully treated this way. Traditionally, the biggest book around was the Bible, leading ganglions to be called "Gideon’s disease" in some circles.

The cyst can be drained with a needle. This can remove the fluid, but it usually does not stop or prevent the fluid continuing to leak into the space. Unfortunately, the cyst will frequently fill up again with fluid from the joint or tendon. After draining the cyst, it is possible to inject cortisone which seems to decrease the recurrence, but can lead to tendon rupture or skin atrophy. Aspiration with or without cortisone is pretty easy but not very effective and roughly 85% will recur.

Surgery can be done to remove the cyst and disrupt the one way valve mechanism. The most effective treatment of a cyst is directed at reducing the source of the fluid and trying to eliminate the fluid filled space. This is done when cysts are large and unsightly or painful or do not go away on their own. They may return even after properly performed surgery, but recurrence rates in large studies are usually less than 15%.

PROGNOSIS
Prognosis is good. Most ganglion cysts need no treatment and do not cause problems. Roughly half will disappear eventually even without treatment. Surgical treatment, when elected, is usually effective. Recurrence rates are low.

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 and 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.