What is a Ganglion (Cyst)?
Ganglion cysts are benign fluid filled cysts (balloons) that arise from the capsule of a joint or the sheath of a tendon. They can be found at different places on the wrist. A ganglion cyst that grows on the top of the wrist is called a dorsal wrist ganglion. The type that grows next to your pulse point is called a volar wrist ganglion. Others common locations include: the end joint of a finger (usually associated with an arthritic spur of the adjacent knuckle), or at the base of a finger. Most of the time, these are harmless and will often disappear in time.

What Causes Ganglions?
A ganglion cyst contains a thick clear mucus-like fluid similar to that found in the joint. No one knows what triggers the formation of a ganglion. It appears as though a tiny one way valve develops in the joint capsule and creates the neck of a balloon–like sack. With repetitive use, fluid is forced through the valve into the balloon which, (since the fluid can’t flow back through the valve), in turn slowly enlarges. Over time, our bodies absorb some of the water from this accumulated joint fluid – turning it into a golden colored thick gel. Women are more likely to develop ganglion cysts than men. Ganglia are common among gymnasts and others who are repeatedly stressing their wrists. Because the fluid-filled cyst puts pressure on the nerves that pass through the joint, some ganglions may be painful. Large ganglia, even if they are not painful, are unattractive. Smaller ganglions that remain hidden under the skin (occult ganglions) may be quite painful.

How Can I Be sure I Have a Ganglion (Cyst)?
Usually the diagnosis is confirmed from your symptoms & examination of your upper extremity & wrists. Pressure may be applied to identify any tenderness. A penlight may be held up to the cyst to see whether light shines through. X-rays may be taken to rule out other conditions, such as arthritis or a bone tumor. Sometimes, an MRI or ultrasound is needed to find a ganglion cyst that is not visible. If clear or yellow gelatinous fluid is aspirated from the ganglion, it confirms the diagnosis.

What is the Treatment for my Ganglion (Cyst)?
In most cases, the initial treatment is not surgical. Because the ganglion is not cancerous and may disappear in time, just waiting and watching may be enough to make sure that no unusual changes occur. Since activity often causes the ganglion to increase in size or cause pain, a wrist brace or splint may relieve symptoms, letting the ganglion decrease in size. Later, once the pain decreases and the ganglion shrinks, you may begin to gently exercise to strengthen the wrist and improve range of motion. Nonsurgical treatment leaves the outer shell and the stalk of the ganglion intact, so it may reform and reappear. If the ganglion causes a great deal of pain or severely limits activities, the fluid may be aspirated (drained from it). The area around the ganglion cyst is first numbed with local anesthetic and the cyst is punctured with a needle or the fluid is drawn off. This can be safely repeated once or twice.
What Happens During Ganglion (Cyst) Removal Surgery?

Surgery is usually recommended for patients who have recurrent pain or large cyst after previous aspiration. Currently I perform Excision of Ganglion (Cysts) at Coastal Carolina Hospital in the Main Operating Room. Because the surgery take about ½ hr (and sometimes longer for volar ganglia) the surgery is performed either with Regional Anesthesia (your entire arm is numbed with local anesthetic) or with a short General Anesthetic. The exact procedure depends on the location of your ganglion but in each case, the cyst is removed and examined microscopically by a surgical pathologist.

Dorsal Ganglia (on the back of your wrist) can be readily excised through a small transverse incision. Previously it was recommended that we tightly repair the defect in the joint capsule to prevent recurrence of the cyst. These days we actually remove a small circle of the capsule around the neck of the cyst and do not repair the defect. This not only reduces the recurrence rate (now about 5 % because we remove the 1-way valve) but more importantly, it eliminates a lot of the wrist stiffness that was commonly seen after the older style procedures.

Volar Ganglia (next to your pulse point) usually grow between the branches of the radial artery on the thumb side of your wrist and therefore require a longitudinal, less cosmetically attractive incision so that I can see better to protect these important structures. Volar ganglion surgery is correspondingly longer and there is often more bruising and swelling immediately afterwards. Most patients have equal blood flow to their hand through the radial artery (pulse point next to the volar ganglion) as well as the ulnar artery (baby finger side of your wrist). You will feel brief but firm pressure over these pulse points as I temporarily occlude them during your pre-operative office visit. This “Allen’s test” ensures good flow through both arteries. If the flow in your ulnar artery is slow I will not perform your ganglion surgery and will instead refer you to a hand specialist for your surgery.

Finger Ganglia (usually between your fingernail & the first knuckle) may often be removed under local anesthesia in the Outpatient Department. These have an associated bone spur that almost always forms on the knuckle that should be excised along with the ganglion (cyst).

What are the Risks of Ganglion Excision Surgery?

Recurrence of the cyst still occurs in up to 5% of patients. Wrist stiffness is seen less commonly and usually only follows excision of very large or complicated ganglia. A more frequent problem is increased swelling & bruising in the hand, wrist or palm after surgery due to localized bleeding at the surgery site. After finger ganglia surgery, the thin skin on the back of your finger around the nail may be slow to heal. Occasionally a small sensory nerve that supplies the back of your hand & thumb may be stretched or injured during volar ganglion excision. Though not medically serious, it can be very annoying. My staff will be pleased to give you a copy of the complete list of complications on the surgical consent form.

What About After Surgery?

A padded bandage is worn for the first 7-10 days. You may use your hand for light work & self care until your first post-operative office visit - 8 days after your surgery. I do not routinely use a cast or splint although you may use your splint if you prefer. You will notice discomfort around the incision for several weeks after surgery and you should avoid heavy lifting or repetitive gripping & grasping for a month after surgery. Most people regain their wrist motion within the first month and do not routinely require formal Physiotherapy or Hand Therapy.

When Can I Return to Work After Ganglion Excision?

Most patients may return to modified work within a few days of surgery. You will need to switch tasks frequently and take frequent breaks from repetitive activities for the first month. Those patients whose jobs involve high volume word processing or constant repetitive hand motions will usually need 2-3 weeks off work. Patients with extremely heavy or strenuous work situations may well need 4-6 weeks before they can return to unrestricted heavy repetitive work.