

Common Masses of the Wrist, Hand & Fingers

Giant Cell Tumor of the Tendon Sheath

Giant Cell Tumors of the tendon sheath are benign soft tissue tumors. They are the second most common tumor in the hand.

Symptoms

- Firm, non-tender mass typically found on the palmar surface of the fingers or hand
- Most commonly found on the index, middle, and ring fingers
- Slow growing and may be present for long time before becoming symptomatic.

Diagnosis and Treatment

Diagnosis is made by history and physical exam. Occasionally, an MRI is recommended if the diagnosis is uncertain or to better assess the extent of the mass and the involvement of adjacent structures. Although these tumors are benign, Dr. Rosen recommends an excisional biopsy to confirm the diagnosis and remove the mass. There is a 15-30% risk of recurrence despite successful surgical excision.^{KSF}

Epidermal Inclusion Cysts

Epidermal Inclusion Cysts are benign cysts that occur following a traumatic event. They develop after a penetrating injury that results in skin cells being forced into the underlying soft tissue.

Symptoms

- Painless swelling in an area of trauma that may grow over an interval of months or years
- If infected, the cysts may become painful and red

Diagnosis and Treatment

Diagnosis is made by history and physical exam. Occasionally, an MRI is recommended if the diagnosis is uncertain or to better assess the mass and the adjacent structures. Although the lesions are benign, Dr. Rosen will recommend performing an excisional biopsy to confirm the diagnosis and remove the mass. Recurrence is uncommon after surgical excision.^{KSF}

Pyogenic Granuloma

A Pyogenic Granuloma is a red, fleshy, benign skin growth that is typically small but may grow to ½ inch or larger. It may occur in the hand, fingers, or around the nail bed. They most commonly occur after some type of trauma, but the exact cause is unknown. They consist of a localized infection with formation of blood vessels.

Symptoms

- Fleshy red vascular mass arising from an area of trauma/infection
- May bleed because they contain many small blood vessels

Diagnosis and Treatment

Diagnosis is made by history and physical exam. Even though pyogenic granulomas are localized infections, they do not respond to antibiotics. If a Pyogenic Granuloma is small enough, Dr. Rosen may cauterize it by applying silver nitrate. This may require several treatments. If the granuloma does not resolve or if it is too large, Dr. Rosen may recommend surgical excision in the operating room.^{KSF}

Glomus Tumor

Glomus Tumors arise from structures called the Glomus bodies which regulate blood flow and temperature. These tumors are a collection of vessels surrounded by nerves. About half of all Glomus tumors occur deep to the nail.

Symptoms

- Hypersensitivity to pressure over the mass which is often not palpable
- The nail is often painful and sensitive to cold temperature and pressure
- Bluish discoloration beneath the nail

Diagnosis and Treatment

Diagnosis is made by history and physical exam. If the tumor is difficult to localize, Dr. Rosen may order an MRI scan. The MRI is particularly useful in cases where the tumor lies beneath the nail. Treatment of this tumor is surgical excision.^{KSF}

Dupuytren's Disease

Dupuytren's Disease is an abnormal thickening of the tissue between the skin and the tendons in the palm of the hand. Hard knots may form under the skin and in some cases these can become cords that pass into the fingers. This may cause pain and may eventually pull the fingers down into the palm – this is known as Dupuytren's Contracture. The condition can hinder hand function if left untreated. Occasionally the disease can also cause thickening over the top of the knuckles.

Symptoms

- A lump, scar-like band, or pit in the palm of the hand, most often seen at the base of the ring finger
- Pain in the affected area of the hand and inability to place the palm flat on a surface
- Fingers pulling down towards the palm

Causes

Dupuytren's is more common in people of Northern European descent and occurs more often in men over the age of 40. There is no clear evidence to link Dupuytren's disease to a specific occupation or injury. There is a higher incidence of Dupuytren's Disease in diabetics and alcoholics.

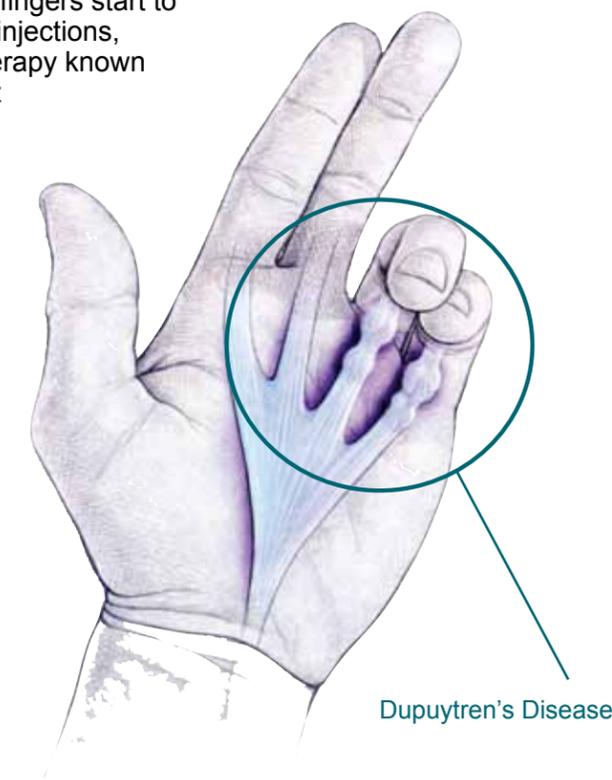
Diagnosis

A diagnosis of Dupuytren's Disease is made by thoroughly examining the hand. Nodules and cords are easily identified.

Treatment

Treatment is recommended if the disease becomes painful or the fingers start to pull down into the palm and affect hand function. Options include injections, external fixators, and surgery. Dr. Rosen offers a new injection therapy known as XIAFLEX®. This recently FDA-approved non-surgical treatment for Dupuytren's disease is injected into the collagen cord, causing it to rupture with subsequent improvement in the contracture. Following injection, hand therapy for range of motion, splinting and scar management, is indicated.

More severe contractures require surgery. This is sometimes performed in two stages with an external fixator called a Digit Widget. When surgery is necessary, it is done as an outpatient procedure. Following surgery, patients need splinting and hand therapy in order to help control scar formation and restore hand function.^{KSF}



Ganglion Cysts of the Wrist

A Ganglion Cyst is a firm, fluid-filled mass that may appear on the back of the wrist, the palmar side of the wrist (usually just below the thumb), or at the base of the fingers. Ganglion cysts usually originate from a nearby joint or tendon. Although these cysts are common, they do not spread and they do not become malignant.

Symptoms

- A palpable mass
- Pain, usually with activity or pressure

Causes

In most cases there is no specific cause for the development of a ganglion cyst, however they may occur after an injury to the wrist. They originate from areas of weakness in the joint capsule.

Diagnosis and Treatment

A diagnosis is made by history and physical examination. An x-ray may also be ordered to rule out other problems in the joint. While some ganglion cysts will shrink and become painless without treatment others become larger and more painful. Treatment may include removing fluid from the cyst with a needle followed by an injection of cortisone to decrease inflammation. Following injection, Dr. Rosen recommends a pressure dressing for two weeks and a wrist splint for four weeks. This decreases the risk of recurrence.

If symptoms persist or if the cyst returns, surgical excision may be recommended. Dr. Rosen performs minimally invasive arthroscopically assisted Ganglion Cyst Eycision which is performed as an outpatient procedure.^{KSF}



Mucous Cyst

A Mucous Cyst is a firm, fluid-filled sac (a type of ganglion cyst) found near the base of the fingernail. These cysts are generally associated with arthritis in the joint closest to the nail.

Symptoms

- A round mass that may leak clear fluid
- Grooving of the fingernail resulting from pressure of the cyst on the underlying nail bed
- Pain from the cyst and from the underlying arthritic joint

Causes

Arthritis of the joint with irritation of the joint capsule.

Diagnosis and Treatment

A diagnosis of mucous cyst is made by history and examination. An x-ray will be taken to determine the severity of arthritis and the presence of spurs around the joint. Occasionally cysts rupture and drain a clear, jelly-like fluid. Rupture of the cyst may progress to an infection that can spread to the joint. Patients are strongly discouraged from trying to rupture or aspirate cysts themselves because of this risk of infection.

The only treatment for a mucous cyst is surgical removal done as an outpatient. Surgery involves removal of both the cyst and the underlying bony spurs that may be associated.

In rare cases (due to involvement of the tendon that straightens the joint), a small pin may be placed across the joint at the time of surgery to stabilize the joint while the tendon heals. The pin remains in place for six weeks and is removed in the office. There may be stiffness in the joint following surgery and hand therapy may be indicated.

Despite surgical removal, a mucous cyst may recur.^{KSF}

