A ganglion is a fluid-filled cyst that is usually in approximation to a joint or a tendon sheath. The fluid is very similar to joint fluid and is almost like hair gel. The ganglion usually starts from the joint lining or from a tendon sheath, where a mushroom-like protrusion filled with joint fluid grows larger and larger to form a ganglion that we can see and feel. An occult ganglion is a ganglion that is too small to palpate (feel) but we can pick it up with MRI scans or ultrasound.

The ganglion has a stalk that is firmly rooted in the joint. It is believed that this stalk has a one-way valve that allows fluid from the joint to collect, but cannot let it back into the joint, and hence the ganglion grows.

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**Diagram of ganglion coming from Scapho-lunate interval**

A ganglion is a fluid filled cyst that is usually in approximation to a joint or a tendon sheath.
SYMPTOMS

Ganglions

The most common ganglions are dorsal or at the back of the wrist. The second most common position is on the palm side of the hand towards the radial (thumb side) side of the wrist. Sometimes the ganglion develops from the flexor tendons: these ganglions are smaller and develop in the palm side at the base of the fingers. They tend to be quite painful, especially when objects are firmly gripped.

Ganglions are friendly growths but sometimes they cause pain and discomfort due to the pressure effect. They might press on nerves or irritate the tendons that run in the vicinity. Furthermore, there is associated synovitis (inflammatory tissue around a joint) in the joint associated with the ganglion. This is thought to be the reason that some ganglions are very painful.

The second most common position is on the palm side towards the radial side of the wrist.
Ganglions are generally harmless, but they can cause a fair amount of discomfort, small or big. The ganglions on the front side (palm side) of the hand can be very uncomfortable with writing or working on a computer.

The aim of the surgery is to remove the ganglion, dissect it free from the surrounding tissue and to remove the stalk that is firmly rooted in the joint. This ensures that the ganglion does not grow back again. The associated synovitis can be removed at the same time. In large and long-standing ganglions the dissection can be rather invasive as the ganglion is adhered with scar tissue to surrounding tissue (nerve, blood vessels and tendons).

The stalk of the ganglion is removed to prevent the ganglion growing back.
EXPECTATIONS
After the operation

The operation usually requires a fair amount of dissection and commonly the dissection goes into the wrist joint. We frequently put on a cast for 10-14 days after the operation to immobilize the wrist. This will allow proper healing of the deep tissue and skin.

The mass effect of the ganglion is immediately gone and most people have relief from pain and discomfort as soon as the surgical pain goes away.

Normal activities can be resumed fairly quickly as finger movement is encouraged.

Once the cast is removed with the first wound check, the wrist can be mobilized.

There is a 0.5-5% risk that ganglion can re-appear and can develop from another site.

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REHABILITATION

After the operation

1. Immediately post surgery, elevation of the affected limb, above the level of the heart, is recommended to minimise swelling in the hand and fingers.

2. Tendon glide exercises can commence the same day, to minimise scar adhesions and to maintain finger movement.

3. Exercises to reduce swelling are also recommended – this involves lifting your hand quickly above your head and lowering it again, while opening and closing your fist.

4. Once the cast has been removed, you will need to start moving the wrist forwards, backwards, side to side as well as rotating the forearm.

5. You can drive once the cast has been removed, if it does not worsen your pain, and you feel safe and confident to do so.

6. You are advised to respect pain, and to pace yourself as necessary.

7. Scar massage can usually be started about a week after the dressings are removed.

8. Application of heat, massage and passive stretches can help to restore limited wrist movement. Grip and wrist strengthening exercises can be carried out from 6 weeks, if necessary.
EXERCISES

Tendon glide exercises

A

B

C

D

E
EXERCISES
Active wrist exercises

- Supination
- Pronation
- Extension
- Flexion
- Ulnar Deviation
- Radial Deviation

cape hand surgery