A tendon is a tough band of connective tissue that joins muscle to bone. Tendons and joints have a covering of membrane that produces a lubricating fluid to assist their function. A ganglion cyst is a benign (non-cancerous) ball of fluid that grows on the membrane or sheath that covers these tendons and joints. The backs of the hands and wrists are most commonly affected, but ganglion cysts can also grow on the feet, knees and ankles. A ganglion cyst is the most common lump on the hand, and tends to target women between the ages of 20 and 40 years of age, for reasons unknown.

As tendons anchor muscle to bone, a ganglion cyst on a tendon may cause muscle weakness. Depending on the individual, there may be just one large lump or a collection of many smaller ones attached to a single 'stalk' deeper in the tissue. Around one third to one half of ganglion cysts disappear on their own without the need for medical treatment. However, it is best to consult your doctor to make sure the swelling is not a symptom of some other type of illness.

**Symptoms of ganglion cysts**

The symptoms of a ganglion cyst include:

- Noticeable swelling or lump.
- The lump is able to change its size, including going away completely only to return.
- The lump is usually soft and immobile.
- In some cases, the lump is painful and aching, particularly those at the base of fingers.
- The ache and pain is made worse by moving any nearby joints.
- The affected tendon may cause a sensation of muscular weakness.
- The back of the hands and wrists are most commonly affected.
- Other sites include the back of the knee (Bakers cyst), ankle, foot, palm and fingers.

**Causes of ganglion cysts**

No one knows what causes a ganglion cyst to form. Some of the theories include:

- The body responds to injury, trauma or overuse by forming an internal 'blister'.
- Small tears in the tendon membrane or joint capsule allow the contents to squeeze out.

**Ganglion cysts can disappear**

Around 30 to 50 per cent of ganglion cysts disappear by themselves without the need for medical treatment. However, it is always best to consult your doctor to make sure the lump isn't a symptom of some other disease. If your ganglion cyst is painful, or if it interferes with your mobility or causes sensations of numbness or pins and needles, see your doctor.

**Diagnosis of ganglion cysts**
Ganglion cysts are diagnosed using a number of tests including:

- Medical history
- Physical examination
- Ultrasound
- X-rays
- Needle aspiration (a fine needle is used to draw off fluid, which is then examined in a laboratory).

**Treatment for ganglion cysts**

Ganglion cysts used to be treated by slamming them with a heavy book such as a Bible - which explains the term 'Bible therapy'. This isn't a good idea, as you could cause further injury. Medical treatment options include:

- **Close monitoring** - if the ganglion cyst isn't causing pain or interfering with movement, some doctors prefer to wait and see. The cyst may simply disappear on its own.
- **Needle aspiration** - one of the tests to diagnose ganglion cysts involves drawing off the fluid with a fine needle. In many cases (around 75 per cent), this treatment empties the cyst and no further action is needed.
- **Surgery** - the cyst or cysts are surgically removed, usually by a specialist such as an orthopaedic surgeon. Ganglion cysts of the feet will usually require surgery.

**Joint mobility after treatment**

Whether your ganglion cyst is aspirated or surgically removed, you will be fitted with a splint for around one week or so. Depending on the location of the excised ganglion cyst, full recovery can be anywhere from two to eight weeks. Be guided by your doctor or health care professional, but generally it is best to get the joint moving again as soon as possible. Using splints for extended periods of time can actually hamper joint mobility. Your doctor will give you specific exercises to perform.

**Ganglion cysts may return**

Ganglion cysts may grow back after treatment. This is less likely if your cysts were surgically removed rather than aspirated with a needle. Some estimates suggest that around half of patients who undergo needle aspiration can expect a recurrence. Since the cause of ganglion cysts is unknown, prevention is impossible. If you suspect your ganglion cyst is recurring, see your doctor for further treatment. A ganglion cyst that is aspirated three times has a better than 80 per cent chance of being cured.

**Where to get help**

- Your doctor
- Orthopaedic surgeon

**Things to remember**

- A ganglion cyst is a benign ball of fluid that grows on a tendon or joint.
- The backs of the hands and wrists are most commonly affected, but ganglion cysts can also grow on the feet, knees and ankles.
- The cause is unknown, but it is thought that small tears in the tendon membrane or joint capsule allow the contents to squeeze out.
- In many cases, ganglion cysts go away by themselves without the need for medical treatment.
- Treatment options include surgery or draining the cyst with a needle.