



KATARZYNA MACKENZIE

PLASTIC SURGEON

## Ganglions of The Wrist and Hand

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Ganglion cysts are the most common benign lumps in the hand, arising from a joint or tendon sheath. The walls of the cyst are made of connective tissue, and the cyst is filled with a thick clear fluid. The most common locations are the top of the wrist, the palm side of the wrist, the base of the finger on the palm side, and the top of the end joint of the finger.

In most patients, ganglion cysts do not require treatment. However, if the cyst is painful, interferes with function, or has an unacceptable appearance, there are several treatment options available.

Length of surgery	1 hour
Anaesthesia	General anaesthetic or regional anaesthetic
Hospital stay	Day case
Risks/complications of surgery	Frequent: Swelling, stiffness, discomfort on movement Infrequent: Infection, bleeding (haematoma), delayed wound healing, painful scar, damage to the nerve, recurrence, incomplete resolution of symptoms, complex regional pain syndrome
Recovery	1-2 weeks until return to office work 3-16 weeks until swelling disappears 6-8 weeks until return to gym and other strenuous activities 6-10 weeks no heavy lifting 3-6 months until final result
Driving	1-2 weeks
Hand position	Elevation above the heart level
Follow up	1 week, 6 weeks, 3 months, 6 months
Duration of results	Permanent

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## Ganglion information sheet

Any hand surgery procedure is a personal choice and understandably there are a number of questions that arise. This information sheet is a general guide for patients considering hand ganglion treatment under the care of Dr Mackenzie. It should provide the answers to some questions that you may have. There are many factors that can affect your individual operation, your recovery and the long-term result. Some of these factors include your overall health, previous surgery, any bleeding tendencies that you have and your healing capabilities, some of which will be affected by smoking, alcohol and various medications. Such issues that are specific to you need to be discussed with Dr Mackenzie and are not covered here. Please feel free to ask her any further questions before you sign the consent form.

## What is a ganglion?

A ganglion is a fluid-filled sac that appears as a lump under the skin. It is often painless, but depending on its location, it may cause enough discomfort to require treatment.

Ganglion:

- Grows out of the tissues surrounding a joint, such as ligaments, tendon sheaths, and joint linings
- Can be large and obvious or small and deep. It can also fluctuate in size without any special cause or reason
- Occurs most frequently on the joints and tendons of the wrist. Most are found on the top of the wrist and by the nail of the finger or on the front of the finger (called mucous cyst)
- Can appear almost suddenly, or can grow slowly over a period of months or years
- Most often affects people in their 30s and 40s
- More common in women than men
- Doesn't have a specific cause and is not related to any particular activity
- Ganglion cyst is not cancerous

## What are the symptoms of a ganglion?

Many ganglions remain asymptomatic. Some can grow large enough to be unattractive, but otherwise cause no other symptoms. They may not cause any symptoms for months or years and then suddenly cause discomfort or affect range of motion. The symptoms may include:

- If a ganglion puts pressure on the nerves, it can cause numbness and tingling
- Weakened grip and a reduced range of motion
- Pain when direct pressure is placed on a ganglion
- Ganglions near the fingernail may produce grooves in the nail

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## What causes a ganglion?

In most cases it is not clear why ganglions occur. Proposed causes include trapped joint fluid or outpouching of the joint lining. Another possible cause is degenerating connective tissue. Most ganglions arise spontaneously. They can be associated with:

- Women are more likely to be affected than men
- History of injury
- Ganglion cysts that develop at the end joint of a finger (mucous cysts) are typically associated with osteoarthritis in the finger joint, and are more common in women between the ages of 40 and 70 years
- Repetitive hand use- common among gymnasts, who repeatedly apply stress to the wrist

## How is a ganglion diagnosed?

Dr Mackenzie will take a detailed history including complete medical history, how the hands have been used, any prior injuries, how long you had the ganglion, whether it changes in size, and whether it is painful.

That will be followed by examination of the hand and wrist. Pressure may be applied to identify any tenderness. Because a ganglion cyst is filled with fluid, Dr Mackenzie may shine a small light, such as a pen light, through it to confirm that it is a ganglion cyst.

If the diagnosis is uncertain then scans may be helpful, including ultrasound scan to confirm that the lump is a cyst or MRI for painful occult ganglions. An x-ray may be taken- although x-rays will not show a ganglion cyst, they can be used to rule out other conditions, such as arthritis or a bone tumor.

## Why do I need surgery?

Ganglions are harmless and can safely be left alone. Many disappear spontaneously and many others cause little trouble. There are no long term consequences from leaving the ganglion untreated. However, if the ganglion causes prolonged and constant symptoms and symptoms are not relieved by non-surgical measures, surgery may be needed.

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## What is the treatment?

### Non-surgical treatment

Non-surgical treatments are usually tried first. Treatment begins with:

- In many cases ganglions can simply be observed
- Splint may relieve symptoms and cause the ganglion to decrease in size (swelling in ganglion is often aggravated by using the joint it is affecting). As pain decreases, exercises to strengthen the wrist and improve range of motion may be recommended
- Aspiration of the ganglion. The area around the ganglion is numbed and the cyst is punctured with a needle so that the fluid can be withdrawn. Aspiration can provide immediate relief to the discomfort caused by ganglions. However, because this method does not remove the entire ganglion, it often returns
- Taking nonsteroidal anti-inflammatory drugs, such as ibuprofen, to relieve pain

### Surgical treatment

If non-surgical options fail to provide relief or if the ganglion recurs, surgical alternatives are available. The goal of surgery is to remove the entire ganglion intact.

This operation can be performed under local anaesthetic (mucous cyst) or under regional/general anaesthesia.

## What happens during surgery?

In most cases, carpal tunnel surgery is done as a day case. The anaesthetic may be regional (injected in the armpit to numb the entire arm), general or local (which numbs just your hand). In some cases, you will also be given a light sedative through an intravenous line inserted into a vein in your arm. Dr Mackenzie will make an incision overlying the ganglion. Surgery involves removing the cyst along with a portion of the joint capsule or tendon sheath.

If you have a ganglion on your finger, Dr Mackenzie may need to use a local flap or skin graft to replace the thin skin over the cyst. The anatomical structures are protected during the surgery. Wound will be closed with dissolvable sutures and bulky dressing applied.

The surgery takes about 1 hour. Surgical treatment is generally successful although cysts may recur.

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## What is the recovery after ganglion surgery?

It is very important to elevate your hand as often as possible, following your operation as it helps to reduce the swelling. You will be encouraged to move your fingers to reduce swelling and prevent stiffness.

You can expect some pain, swelling, and stiffness after your procedure. Discomfort around the cut area may last for several weeks or months.

You can have a bath or shower 24 hours after your operation, but keep your wounds dry until they have healed. It is helpful to wear a large plastic bag over your arm for showering or bathing.

You can drive a car when your hand feels comfortable and strong. It usually takes at least 1-2 weeks before you can drive a car.

Self-care activities, and light lifting and gripping may be permitted soon after surgery.

If you have another condition that causes pain or stiffness in your hand or wrist, such as arthritis or tendonitis, it may slow your overall recovery.

Recovery may take several months.

## When can I return to work?

This will depend on the type of work you do, but it may be one to two weeks after your operation. Heavier activities with the affected hand are restricted for 4 to 6 weeks.

## What are the risks of surgery?

Complications associated with this surgery are rare, but can include:

- Infection – this can be settled by taking antibiotics
- Swelling may last for a few months
- Stiffness can occur if the hand is not used and exercised after the operation. This is usually temporary and can be treated with exercise given by the hand therapist
- Painful scar
- Wound healing problems
- Bleeding

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- Nerve damage- can occur during your surgery which results in either a painful spot in the scar or some loss of feeling in the hand. This complication is very rare but may need a further operation to correct
- Recurrence-10-30%
- Changes in the nail-ganglions on the tip of the finger often cause a groove in the nail. It usually settles after the operation but occasionally it can persist after or result from the surgery
- CRPS-complex regional pain syndrome