CONDITION

Ganglions

A ganglion is a non-cancerous, fluid-filled lump near a joint or tendon.

WHAT IT IS
Fluid-filled lump arising near a joint or tendon

BODY SYSTEM
Joints, tendons and soft tissues

MAIN SYMPTOMS
Lump, aching, tenderness, tingling, reduced movement

WHAT CAUSES IT
Joint or tendon fluid; exact cause unknown

HOW IT IS DIAGNOSED
Physical examination; ultrasound or MRI when uncertain

MAIN TREATMENT
Monitoring, aspiration or surgical removal

CAN IT BE CURED?
Sometimes - removal succeeds, though recurrence remains possible

IS IT AN EMERGENCY?
Sometimes - new weakness or a cold, pale limb

LONG-TERM OUTLOOK
Benign, often improves, but may return after treatment

Overview

A ganglion is a smooth lump filled with thick, jelly-like fluid. It develops beside a joint or around the covering of a tendon, called a tendon sheath. Ganglions are often called ganglion cysts.

They are most common around the wrist and hand but can also form on the fingers, ankle or foot. A ganglion near the end joint of a finger is sometimes called a digital mucous cyst and is often linked with wear-and-tear arthritis.

Ganglions are benign. They do not spread or turn into cancer. Some cause no problems apart from a visible lump, while others ache, restrict movement or press on a nearby nerve.

A ganglion may become more noticeable after repeated joint movement and smaller after rest. It may disappear without treatment and later return.

Although usually harmless, not every lump near a joint is a ganglion. A new or unexplained lump

should be assessed if its cause is uncertain.

Symptoms

The main sign is a lump under the skin near a joint or tendon. It may feel firm or springy. Some ganglions are too small or deep to see but can still cause discomfort.

Possible symptoms include:

Wrist ganglions often appear on the back of the wrist. They may also occur on the palm side, where important blood vessels and nerves pass nearby. Finger ganglions can form near the base of a finger or beside the nail.

A digital mucous cyst may thin the skin or create a groove in the nail. Do not squeeze or puncture it, as this can damage the skin and allow infection into the nearby joint.

Ganglions are not usually hot, very red or associated with fever. These features may indicate infection or another condition and need prompt assessment.

- Aching or tenderness, especially during joint movement
- Pain when pressure is placed on the lump
- Tingling, numbness or weakness if it presses on a nerve
- Reduced movement or grip strength
- A lump that grows, shrinks, disappears or returns

Causes and risk factors

The exact cause is not fully understood. A ganglion appears to develop when tissue around a joint or tendon forms a small sac filled with fluid similar to the lubricating fluid inside joints and tendon sheaths.

The cyst may connect to the joint or tendon sheath through a narrow stalk. This helps explain why aspiration, which draws out the fluid with a needle, does not always stop it filling again.

Ganglions can occur without a clear trigger. Joint or tendon stress may contribute, and some people report a previous injury, but ordinary hand use is not known to be a direct cause.

They are often seen in younger and middle-aged adults but can occur at other ages. Digital mucous cysts are more closely associated with osteoarthritis.

A ganglion is not contagious or caused by poor circulation, and there is usually no inherited reason for it.

Diagnosis

A clinician can often identify a ganglion by asking how the lump behaves and examining its position, shape and movement. They may check for tenderness, changes with joint movement, and pressure on a nerve or blood vessel.

Imaging is not always needed. It may be used when the lump is deep, unusually placed or difficult to distinguish from another condition.

An ultrasound can show whether a lump contains fluid or is solid and identify nearby blood vessels. This is particularly useful on the palm side of the wrist. An MRI may be considered if the diagnosis remains unclear.

An X-ray cannot usually show the ganglion itself, but it may reveal arthritis, a bone problem or another cause of pain.

Other lumps can resemble a ganglion, including fatty lumps, a bony prominence called a carpal boss, inflamed tissue, infection and, rarely, a blood vessel problem or tumour. A lump that pulses should not be treated as a ganglion without medical assessment.

Treatment and management

A painless ganglion that does not interfere with movement may not need treatment. Monitoring is often reasonable because some shrink or disappear on their own.

You can usually continue comfortable activities. Changing how you perform a painful task, taking breaks or temporarily avoiding movements that press on the lump may help. A wrist support or splint can ease symptoms for a short period, but prolonged use may cause stiffness and muscle weakness.

Over-the-counter pain relief may help. Ask a pharmacist or clinician whether a medicine is suitable, especially if you have other health conditions, take regular medicines or are pregnant.

If symptoms continue, options may include aspiration or surgery.

During aspiration, a clinician numbs the area, inserts a needle and draws out the fluid. This can reduce the lump, but the connecting stalk usually remains, so it may refill. Aspiration may not be suitable where the cyst lies close to an artery or nerve.

Surgery removes the cyst and usually part of its connection to the joint or tendon sheath. It may be considered for ongoing pain, limited function, nerve pressure or repeated recurrence. Surgery reduces but does not eliminate the chance of recurrence.

Recovery can involve temporary soreness, swelling and stiffness. When you can resume work,

driving, sport or heavy use depends on the ganglion's location, the procedure and the activity.

Do not try to burst a ganglion, pierce it with a needle or strike it with a heavy object. This can cause skin damage, bleeding, infection, or injury to nerves and blood vessels.

Complications

Most ganglions cause no lasting harm. Problems are more likely if the cyst presses on nearby structures or interferes with movement.

Possible complications include persistent pain, stiffness, reduced grip and nerve pressure causing tingling, numbness or weakness. A digital mucous cyst can damage the nail or become infected if the thin skin breaks.

Aspiration can cause bleeding, bruising or infection, and the cyst may refill.

Possible complications of surgery include infection, scarring, stiffness, ongoing pain and injury to a nearby nerve, tendon or blood vessel. The ganglion can return even after complete removal. Surgery on the palm side of the wrist may be more complex because the cyst can be close to the radial artery.

Prevention

There is no proven way to prevent a ganglion. Many develop without an injury or identifiable cause.

You do not need to stop ordinary joint movement. If an activity repeatedly causes pain around an existing ganglion, changing your technique, equipment or schedule may reduce irritation, but it will not necessarily make the cyst shrink or prevent recurrence.

Ganglions linked with osteoarthritis cannot always be prevented because the underlying joint changes develop over time.

Living with it and what to expect

A ganglion may remain unchanged for months or years, vary in size or gradually disappear. A cyst that goes away can return in the same place. Changes in size do not usually mean it has become dangerous.

Many people live normally without treatment. Position can matter more than size: a small cyst pressing on a nerve may be more troublesome than a large painless one.

If discomfort is mild, monitoring and adjusting activities may be enough. Note meaningful changes such as increasing pain, altered sensation or reduced movement rather than repeatedly pressing the lump.

Aspiration may provide relief but has a substantial chance of recurrence. Surgery is more likely to remove the cyst and its stalk, although recurrence remains possible. A scar, temporary swelling or stiffness can affect the area during recovery.

A ganglion does not usually affect general health or shorten life. Follow-up is guided by symptoms, changes in the lump and its effect on normal activities.

When to get medical help

Arrange a routine appointment if:

Seek prompt medical advice if the lump or surrounding skin becomes red, hot, increasingly painful or starts leaking fluid, especially if you feel feverish or unwell. These can be signs of infection.

Get urgent help if you develop sudden or worsening weakness or loss of feeling in the hand or foot.

Seek emergency care if the affected limb becomes cold, pale or blue, or if severe symptoms begin after a significant injury. These features may indicate a circulation or injury problem rather than an uncomplicated ganglion.

- You have a new lump and are unsure what it is
- The lump is growing, becoming painful or restricting movement
- You develop repeated tingling, numbness or reduced grip
- A finger cyst is affecting your nail or the skin over it is thinning
- A previously treated ganglion has returned and is causing problems

Common questions

Is a ganglion cancer?

No. A ganglion is a benign fluid-filled cyst. It does not spread or become cancerous. However, a clinician may need to examine a new lump to confirm what it is.

Will a ganglion go away by itself?

It can. Some shrink or disappear without treatment, while others remain or return. There is no

reliable way to predict how long this will take.

Can I pop or massage a ganglion away?

Do not puncture, burst or strike it. This can damage the skin and nearby structures or cause infection. Massage has not been shown to remove the cyst or its connection to the joint.

Why does my ganglion change size?

Joint or tendon movement can move fluid into the cyst, making it more noticeable. Rest may make it smaller. This is typical, but a rapidly changing or painful lump still needs assessment.

Can I exercise with a wrist or foot ganglion?

You can usually continue activities that do not cause significant pain, numbness or weakness. If an exercise aggravates symptoms, reduce the load, change the movement or pause until the area settles. Persistent symptoms should be assessed.

Why did my ganglion return after it was drained?

Aspiration removes the fluid but usually leaves the cyst wall and connecting stalk. Fluid can collect again. Recurrence after drainage does not mean the lump has become cancerous.

Sources

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