

Drainage of an Infected Flexor Sheath

At-a-glance recovery. Pooled from 10 published studies — your own pace will vary.

LIGHT DUTIES	MOST EVERYDAY ACTIVITIES	FINAL OUTCOME PLATEAU
desk work, driving, daily tasks	manual work, sport, gym	pain and strength
2-6 weeks	3-6 months	12 months
Light use of the hand within 2 to 6 weeks. Hand therapy starts early and deliberately: movement is what keeps the tendon gliding, so this is not a period of resting the finger.	Return to manual work and full grip by 3 to 6 months, depending on how much stiffness developed and how promptly the infection was treated.	The final range of movement is reached by about 12 months. Some loss of full fist is common after a sheath infection, and how much depends more on the delay before drainage than on anything in the operation.

Why this operation has been suggested

Dr Kieran Hirpara, an upper-limb surgeon at Mater Private Hospital Rockhampton, treats this infection by draining it promptly, because delay can affect how well the finger moves afterwards. Patients are generally referred to our clinic by their GP; if a physiotherapist has suggested you see us, you will still need a referral from your GP in order to be eligible for the Medicare rebate. At your assessment we take a history, examine your finger, and arrange imaging or tests where they are needed.

This infection affects the tunnel of tissue that lets your finger tendons slide. It causes swelling, tenderness along the front of the finger, and pain when the finger is straightened. It usually follows a puncture wound or scratch, sometimes a small one. Antibiotics alone are not usually enough, because pus collects inside that closed tunnel. The operation washes the infection out through small cuts and is combined with antibiotic treatment. Acting quickly gives the tendon the best chance of sliding freely again, and the aim is to relieve pain and keep the finger moving.

Before the operation

You will need to stop eating and drinking for seven hours before surgery. We ask for seven rather than six so we can bring you forward if the theatre list runs early. Your surgeon will tell you which of your regular medicines to skip on the day, and it helps to bring a written list of everything you take. Arrange for someone to drive you home afterwards, and wear loose, comfortable clothing. Some imaging may be needed to plan the operation, such as an X-ray, ultrasound or MRI scan. If you have other medical conditions, you may also need blood tests or a review with the anaesthetist before the day.

On the day

You arrive at the hospital's surgical admissions unit, where you are checked in and prepared for theatre. You will meet the anaesthetist, who reviews your health and answers your questions. This operation is done under general anaesthetic. A regional nerve block is sometimes added for post-operative pain relief; the anaesthetist will discuss this with you on the day. You are then taken into the operating theatre, where the operation is performed.

You wake up in the recovery area, where nurses monitor you while the anaesthetic wears off. Once you are stable, you either go to the ward or go home, depending on the procedure and your recovery. Some people need a short stay so antibiotics can continue through a drip. Before you leave, we explain how to care for your hand and arrange your follow-up.

What the operation involves

The operation aims to open the infected tunnel of tissue in your finger and wash the pus out of it. Your surgeon makes a zigzag cut along the palm side of the finger. If you already have a wound from the injury, it is included in that cut. Small bands of tissue that hold the tendons close to the bone are partly released so the surgeon can reach the tendons and the tunnel around them.

The tunnel is then flushed out repeatedly with fluid containing antibiotic until the fluid running out is clear. While this happens, your finger is gently bent and straightened so the fluid reaches every part of the tendon. Any infected tissue clinging to the tendons is cleaned away. In some cases a fine soft tube is left in the tunnel so fluid can keep washing through it afterwards, usually at a slow, steady rate. The tube is positioned carefully inside the tunnel, because fluid collecting in the wrong place under the skin can harm the finger's blood supply.

The cut is closed with stitches, and most people also start a course of antibiotics through a drip. Antibiotics are chosen to match the germ causing the infection and how severe it is. Some people need a short stay in hospital so the drip antibiotics can continue.

The whole treatment works as a pair: the operation drains the infection, and the antibiotics clear what is left. Your surgeon will explain which parts of this apply to you, since the exact steps depend on how far the infection has spread and what is found during the operation.

After the operation

You wake up in the recovery area, where nurses watch you closely while you come round. Pain is managed with medication, and your hand will be in a dressing and bandage. You can move around as soon as you feel able, and someone should stay with you for the first 24 hours. Your team will tell you whether you go home the same day or stay one night in hospital. We leave the dressing on for about 10 days; please do not take it off before then unless we tell you to. We change or remove it when we see you.

Recovery

Your finger will be sore and swollen for the first days and weeks. The swelling often spreads along the whole finger and into the palm. Keeping your hand raised on pillows, even while you sleep, helps it settle. Simple pain medication usually eases the discomfort as it improves.

Your hand will stay in a dressing and bandage for about 10 days. We change or remove the dressing when we see you. After that, your recovery focuses on movement. Hand therapy after this surgery is with Ruby Doolan at Extend Rehabilitation. Ruby is a hand therapist: she will guide your exercises and make any splint your finger needs. The exercises start gently and build as the pain settles. You will bend and straighten the finger little and often through the day. This keeps the tendons sliding inside the tunnel as it heals.

You can do most things at home with your other hand while this one recovers. Keep the cuts clean and dry, and avoid heavy gripping, lifting or getting the hand dirty until we tell you it is safe. Driving is off the table while your hand is in a splint or you cannot grip and react quickly in an emergency stop, and you must be off strong pain medication. Our guide on driving after upper-limb surgery explains when you can get back behind the wheel.

Some stiffness in the finger is expected even when treatment goes well, and it can take time for movement to return. Your timeline may differ from the next person's; we and your therapist will guide you along the way.

What can go wrong

Most patients do well, but problems can occasionally happen. Your surgeon and the team monitor you closely to spot any issue early.

One problem this infection can cause is a sudden drop in the blood supply to the finger. Doctors call this digital ischaemia. It means the finger is not getting enough blood, so it may look pale, dusky or a darker colour than the fingers beside it. It can feel cold, numb or more painful than before, and the pain may be deep and throbbing rather than the usual soreness of a healing finger. The finger may also swell quickly or feel firm.

This is not something to wait on. If you notice any of these changes, contact the clinic straight away, or go to the emergency department if it is after hours or you cannot reach anyone. Tell the team what you are seeing and when it started. Quick treatment gives the finger the best chance of recovering its blood supply.

If you are at home with a wash-out tube in place, mention any new colour change, coldness or worsening pain when you call. If you are unsure whether what you are noticing counts as a problem, call anyway. It is always fine to ask.

Some changes are worth raising at your next review rather than the emergency department, such as mild swelling that is slowly settling or discomfort that eases with simple painkillers. Your team will tell you at your follow-up which changes need a phone call and which can wait for your appointment.

The complications table on this page lists typical rates if you want the specifics.

When to call us

Call us if you develop a fever, if the redness around your wound is spreading, or if discharge from the cuts increases. Call us if pain suddenly becomes severe, if your finger changes colour, or if you cannot bend or straighten it. Go to emergency if you have calf swelling or shortness of breath, or if your finger looks pale, dusky or cold. These changes need urgent assessment. If you are unsure, call anyway.

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Complication rates from published literature

Pooled from 10 published studies. These are population-level rates, not your individual risk — your surgeon will discuss what applies to you.

COMPLICATION	REPORTED RATE	NOTES
stiffness and loss of full movement	55%	The dominant long-term problem: across the pooled 763-patient systematic review only 45% regained excellent motion, so roughly half are left with some restriction. The numbers behind the treatment choices: catheter irrigation 71% excellent motion vs 26% for open washout (in the older series), antibiotics alongside drainage 54% vs 14% excellent without, and over 80% excellent when treated within 48 hours - which is why this is an emergency and why hand therapy starts early.
repeat washout	—	Pus (rather than turbid fluid) within the sheath at the first operation raised the odds of needing a repeat washout roughly six-fold in the prognostic-factors study - the factor most associated with a second trip to theatre.
tendon rupture or necrosis	—	Uncommon, and associated with delayed presentation, diabetes and vascular disease.
spread to deep spaces or amputation	—	Rare in healthy patients, and the reason this is treated as an emergency. In the pooled series, amputation was driven by background health: 39% with diabetes, 64% with renal failure, 71% with peripheral vascular disease.
recurrence of infection	—	May reflect an unusual organism or an immunocompromised host.

I have read this information and have had the opportunity to ask Dr Hirpara questions about the procedure, its expected recovery, and the complications listed above.

PATIENT — PRINT NAME

SIGNATURE

DATE