PROCEDURE

Repair of webbed fingers or toes

Surgery separates joined fingers or toes and rebuilds the skin between them.

PURPOSE
Separate joined digits to improve function, growth, or appearance

PROCEDURE TYPE
Therapeutic surgery

WHERE IT IS DONE
Operating theatre

ANAESTHESIA
General anaesthesia, especially for children

HOW LONG IT TAKES
About one to three hours

PREPARATION
Fasting, medication review, and skin checks

RECOVERY
Usually same day; no driving after general anaesthesia

MAIN RISKS
Infection, scarring, circulation problems, and web recurrence

RESULTS
Separation immediate; movement and scars assessed over months

Overview

Repair of webbed fingers or toes is an operation to separate digits that are joined from birth. The medical term for joined digits is syndactyly .

The joining may involve skin alone, or it may also involve nails, bones, tendons, nerves, or blood vessels. It can extend partway or all the way to the fingertips or toe tips. These differences affect how complex the operation will be.

The surgeon separates the digits and creates a new web space between them. Skin is rearranged using small flaps. A skin graft may be needed if there is not enough skin to cover both digits safely. A graft is a thin piece of skin moved from another area of the body.

Finger repair is generally considered more important for function than toe repair. Many webbed toes do not affect walking or footwear and can be left alone.

Why the procedure is performed

The main goal is to allow the separated digits to move and grow as independently as possible.

Repair may be offered when joined fingers limit grasping, fine hand movements, or the ability to spread the fingers. It may also help prevent bending or twisting as a shorter finger pulls on a longer one during growth.

For toes, surgery may be considered if joining affects footwear, walking, nail growth, or comfort. Appearance and the emotional effect of the difference may also be part of the decision, but surgery leaves scars and cannot guarantee that both digits will look typical.

The timing is planned around the digits involved, the child's growth, the complexity of the joining, and the safety of anaesthesia. Joined fingers of unequal length may be treated earlier because tethered growth can lead to deformity.

Who should and should not have it

Surgery may be appropriate for a child or adult whose joined digits affect function, growth, comfort, footwear, or personal wellbeing. The likely benefit is usually greater for fingers than for toes.

It is not right for everyone. Simple webbing between toes often causes no physical problem, so the risks and scars of surgery may outweigh the benefit.

The operation may be avoided or delayed when:

Complex joining may require more than one operation. If several fingers are joined, surgeons may separate selected web spaces in stages to protect the blood supply.

- There is an active infection, rash, cut, or sore near the surgical area
- A fever, chest infection, or other illness makes anaesthesia less safe
- Blood flow to the digits is poor or separation could threaten circulation
- A medical condition raises the risk of bleeding or poor wound healing
- The expected functional benefit is small compared with the surgical risks

How to prepare

The treating facility's own instructions take priority because fasting rules, medication plans, and arrival times differ.

You or your child will usually have a preoperative assessment. The team reviews general health, previous anaesthetic problems, allergies, medicines, and the structure of the joined digits. X-rays may be used when bones could be involved.

Follow the facility's fasting instructions exactly. An empty stomach reduces the risk of food or liquid entering the lungs during general anaesthesia.

Tell the team about all medicines and supplements. This is especially important for medicines that affect bleeding. Do not stop a prescribed blood thinner like warfarin or apixaban unless the treating team tells you to do so.

Contact the surgical team if a fever, cough, vomiting, skin infection, or other illness develops before the operation. Bring loose clothing that can fit over a bulky dressing or cast.

What happens during the procedure

General anaesthesia is usually used, meaning you or your child will be unconscious and will not feel the operation.

The surgeon marks a planned pattern of skin flaps, often using zigzag lines. This helps cover the newly separated sides of the digits and reduces the chance that a straight scar will tighten as it heals.

The surgeon carefully divides the skin while protecting nerves, blood vessels, tendons, and other deeper structures. If bones or nails are joined, additional reconstruction may be needed.

Skin flaps are moved into the new web space. If the available skin does not cover the exposed areas without tension, a skin graft may be taken from another site, such as the groin, lower abdomen, forearm, or upper arm. The donor area is then dressed or closed.

The hand or foot is covered with padded dressings. Children often receive a cast or splint to protect the repair and stop them from disturbing the dressings.

Recovery and what to expect afterward

Pain is usually managed with medicines recommended by the surgical team. Throbbing or soreness is expected at first, but pain should gradually improve. Elevating the hand or foot can help control swelling.

After anaesthesia, drinking and eating usually restart when you or your child is awake and not feeling sick. Begin with what the recovery team recommends.

Activity is restricted while the wounds and grafts heal. Keep the dressing or cast clean and dry.

Do not place objects inside it. The team will explain when hand use, walking, sports, swimming, and physical education can restart. Hand therapy may be arranged to support movement and limit stiffness.

Do not drive home after general anaesthesia. An adult should provide transport and follow the facility's instructions about supervision afterward. Driving can resume only when anaesthetic effects have passed, pain is controlled, and a cast or dressing does not prevent safe control of the vehicle.

Return to school or desk-based work is often possible before strenuous activity, but timing is based on comfort, the site of surgery, and how well the wound is protected. Physical work generally requires a longer break.

Risks and possible complications

Every operation has risks. The surgical team can explain which are most relevant to the particular digits being treated.

Possible complications include:

General anaesthesia can cause temporary nausea, sore throat, or drowsiness. Serious anaesthetic complications are uncommon, but individual risk is affected by general health and the type of surgery.

- Bleeding, infection, or delayed wound healing
- Partial or complete loss of a skin graft
- Injury to a nerve, blood vessel, tendon, or nail
- Reduced blood flow to a separated finger or toe
- Stiffness, altered sensation, or persistent pain
- Raised, tight, or noticeable scars
- The web space gradually moving outward again, called web creep
- Differences in digit shape, size, movement, or nail appearance
- A need for another operation as the child grows

Results and follow up

The digits are visibly separated at the end of surgery, but the final result takes longer to assess.

Swelling and scars change over weeks to months. In children, growth may reveal later tightening or web creep.

Follow-up visits are used to inspect circulation, wounds, grafts, and scars. The cast, splint, stitches, or dressings are removed according to the surgeon's plan.

The team may recommend scar massage, moisturiser, silicone treatment, splinting, or hand therapy after the skin has healed. Do not apply products to the wound until the team says it is safe.

Routine follow-up remains important even when healing appears straightforward. Some children need longer-term review to monitor growth, movement, and the position of the new web space.

Alternatives

Observation is the main alternative. It avoids anaesthesia, scars, wound care, and surgical complications. However, it does not separate the digits or prevent growth-related pulling between fingers.

For webbed toes that do not affect walking or footwear, choosing no treatment is often reasonable. Wider shoes or footwear adjustments may help with rubbing, but they do not change the joining.

Hand or occupational therapy may help a person adapt tasks and improve the use of the hand. Therapy cannot separate joined fingers or release a growth tether.

If surgery is appropriate but not urgent, it may be postponed until health, family circumstances, or anaesthetic conditions are more suitable. Delaying may allow more time for decision-making, but it can also permit deformity to progress when unequal fingers are tightly joined.

Complex cases may be treated in stages rather than in one operation. This means more than one anaesthetic and recovery period, but it can help protect blood flow and improve skin coverage.

When to call your healthcare team

Contact the surgical team promptly if pain is getting worse rather than better, the cast becomes wet or damaged, or there is increasing redness, swelling, drainage, bad smell, or fever. Also call if the dressing slips or the skin graft donor site begins bleeding.

Seek urgent medical assessment if a separated finger or toe becomes pale, blue, unusually dark, cold, very swollen, or increasingly numb. Severe pain that does not improve with the recommended medicine can also signal pressure under a cast or a circulation problem.

If you cannot reach the surgical team and circulation appears reduced, go to an emergency department. Call emergency services for severe breathing difficulty, collapse, or another life-threatening reaction.

Questions about scar care, activity, school, work, or routine dressing changes can usually wait for normal clinic hours unless the team has advised otherwise.

Common questions

Will I or my child be asleep?

Usually, yes. Repair is generally performed under general anaesthesia, especially in children. The anaesthesia team monitors breathing, heart rate, blood pressure, and oxygen throughout the operation.

Can I drive home afterward?

No. You must arrange transport after general anaesthesia. A cast, bulky dressing, pain medicine, or limited use of the hand or foot may extend the driving restriction.

How painful is the operation?

Soreness and throbbing are common during the first few days. Pain should improve rather than steadily worsen. The team will provide a pain-control plan suitable for you or your child.

When will we know whether it worked?

The separation is visible immediately. Healing, movement, scar appearance, and web-space position are assessed over several months and, for children, during growth.

Will a skin graft always be needed?

No. Some repairs can be covered with nearby skin flaps. A graft is more likely when separation creates more exposed surface than the local skin can safely cover.

Will another operation be needed?

Some people need revision surgery for scar tightening, web creep, nail problems, or growth-related changes. Complex joining may be planned as several operations from the start.

Sources

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