Dr. Bernard Lallemand
HAND AND UPPER LIMB SURGEON

Mallet Finger

www.drlallemand.com

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Condition 01

Definition

Mallet Finger is an injury to the extensor tendon at the tip of the finger, where the tendon is either torn or avulsed from the distal phalanx, sometimes with a small bone fragment. This results in a characteristic drooping of the fingertip and the inability to actively extend the distal joint. It typically occurs following a sudden forceful flexion of an extended finger, such as being struck by a ball, hence its common name, “baseball finger.”

Causes

Mallet Finger typically results from a sudden forceful flexion of an extended fingertip, usually during sports. This often happens when a ball hits the tip of a straight finger, causing the tendon that straightens the fingertip to tear or pull off a small piece of bone. This mechanism leads to disruption of tendon continuity and loss of active extension at the distal joint.

Signs and Symptoms

The hallmark sign is a drooping fingertip due to the inability to actively extend the distal interphalangeal joint (DIP). Additional symptoms include pain, swelling and tenderness over the dorsal aspect of the fingertip. If an avulsion fracture is present, there may also be bruising, a visible deformity and sometimes a palpable bony fragment.

Diagnosis

Diagnosis is primarily clinical, based on the characteristic drooping of the fingertip and the inability to actively extend the distal phalanx.

X-rays are mandatory to identify any bony avulsion or joint subluxation.

Treatment

Mallet Finger is most often managed nonsurgically with a custom splint that keeps the distal joint in extension for 6 to 8 weeks, allowing the bone or tendon to heal properly. It is crucial that the fingertip remains fully extended during the entire period to avoid reinjury.

Surgical treatment may be required in more complex cases, such as when there is a large bony avulsion, volar subluxation of the distal phalanx, or open tendon injury.

Recovery can take several months. Physiotherapy is often recommended after splinting or surgery to help restore range of motion and strength. Most patients regain good function, though residual stiffness or mild deformity can persist in more severe cases.

Dr. Bernard Lallemand will guide you through the best treatment options tailored to your specific case.

Surgery 02

Indications

Surgery is considered when splinting is unlikely to be effective. This includes cases with a large avulsion fracture involving more than 30–50% of the joint surface, or when the distal phalanx is misaligned or subluxated. Surgery is also indicated for open injuries with tendon laceration, chronic untreated deformities, or when conservative treatment fails to restore extension.

Surgery Procedure

Mallet Finger surgery is a day case procedure, which means you can go home the same day. It is usually performed under local or regional anesthesia, so only the area being operated on will be numb.

After administering the anesthesia and disinfecting the area, the surgical approach depends on the type of injury.

If the tendon is torn, the procedure involves reattaching it to the bone at the fingertip.

In cases of avulsion fracture, the bone fragment is repositioned and stabilized using pins or screws to restore proper joint alignment and promote healing. The distal joint will be held in extension with a pin.

This procedure is done under direct vision, using magnifying surgical loupes for enhanced precision, and fluoroscopy.

At the end of the procedure, the skin may be closed with absorbable stitches.

A complementary anaesthetic will be given at the end of the procedure with Ropivacaine to keep the operated area numb for 12 to 24 hours, allowing better management of post-operative pain.

A dressing and a padded bandage will be applied upon leaving the operating room

After the Surgery

After surgery, the proximal interphalangeal (PIP) joint can be mobilized to prevent stiffness and maintain function. A small splint may be used for comfort, but it is not required for immobilization.

The pin holding the distal interphalangeal (DIP) joint in extension is usually removed around eight weeks under local anesthesia.

Once the pin is removed, rehabilitation will begin to restore motion and strength.

What Are the Main Risks of This Operation?

Swelling, Stiffness, & Scar Pain

After the operation, you might experience swelling, stiffness, and pain around the scar. Keeping your arm elevated and moving your fingers as soon as possible can help reduce these symptoms. Local swelling around the surgical site can last for several months.

In rare cases, some patients may experience more swelling and stiffness than usual, sometimes due to complex regional pain syndrome (CRPS), which affects less than 1% of cases.

Infection

Infections after this operation are rare (less than 1% of cases).

Local wound infections can usually be treated with oral antibiotics. In rare instances, deeper infections may occur, requiring hospital readmission, intravenous antibiotics, and sometimes additional surgery

Joint Stiffness

A common issue, affecting 10–20% of patients, particularly if early mobilization of adjacent joints is not maintained.

Residual Drooping Fingertip

May persist in 10–25% of cases depending on injury severity, timing of treatment, and adherence to post-operation protocols.

Swan Neck Deformity

Less common, seen in <5%, but may develop over time due to imbalance between flexor and extensor forces.

Nonunion or Failure of Tendon Healing

Rare, but may occur in <5% of cases, sometimes necessitating revision surgery.

By understanding these potential risks, you can be better prepared for the recovery process. Always follow Dr. Bernard Lallemand's advice and report any unusual symptoms immediately.

Preoperative course 04

Medical Check-Up and Tests

Health History: Share your medical conditions, allergies and past surgeries.

Medications: Inform your doctor about all medications, especially blood thinners.

Tests: Ensure to bring all tests, such as X-rays, MRI or CT scans.

Understanding your Surgery

- Know the Purpose of the surgery and what it aims to achieve.
- Ask your doctor about the steps, risks, benefits, and alternatives.
- Give your informed Consent after understanding the procedure.

Pre-Anesthesia Consultation (PAC)

You will meet with the anesthetist to discuss your health and the anesthesia options.

If you have any existing health issues, additional checks may be required to ensure everything is safe for the anesthesia.

Emotional and Practical Preparation

- Arrange for someone to assist you after surgery.
- If you're anxious, discuss support options with your doctor.
- Also, stop smoking and limit alcohol intake before surgery to support healing.

2 Days before Surgery

Wash the Surgery Site area twice a day with regular soap (unless you have a cast) and follow any additional instructions from your doctor for cleaning the area.

Night before Surgery

You should not eat nor drink anything after midnight or generally 6 to 8 hours before surgery unless your doctor advises otherwise.

Take a bath or shower, wash your hair, and ensure your nails are clean and free of polish.

Day of the Surgery

Be sure to arrive 3 hours in advance for your surgery, and bring your ID (Emirates ID or passport) and insurance card

- Wear loose clothing that can easily fit over dressings or a cast
- No Makeup or Jewelry: Remove all jewelry, piercings, and skip eye makeup for the day.
- Take Your Medications: Follow your doctor's instructions for taking your medications.
- Bring Essentials: If you wear glasses, contact lenses, or hearing aids, make sure to bring them along.

Postoperative course 05

Day of the Surgery

- After the operation, a dressing and padded bandage will be applied.
- Keep these dressings clean and dry.
- To reduce swelling, keep your arm elevated in a sling or on pillows.
- Start moving all the unaffected joints immediately after the operation to prevent stiffness
- Take painkillers before the anesthetic wears off and continue as necessary.

Day 2 - 14

The padded bandage will be changed in consultation by a nurse and will be replaced by a sticking plaster over the wound to protect it. Ensure the wound stays clean and dry.

This bandage will be changed regularly according to Dr Bernard Lallemand's advice.

A small splint will be applied to protect the operated finger.

Continue gently exercising your hand and wrist. You can use your hand for light activities but avoid heavy lifting and prolonged periods with your hand hanging down below your waist.

2 - 8 Weeks

A wound check and removal of the stitches should occur between 10 and 14 days after your surgery. The details will be arranged on the day of your first visit.

Gradually increase activities with your hand and wrist as comfort allows.

Once the wound is completely healed, a daily session of 10 minutes massaging the scar with moisturized hand cream is often useful to reduce swelling of the scar.

After 12 Weeks

Most people return to normal activities by this stage, although scar massage may still be beneficial.

Driving

You may drive when you feel confident to control the car, even in an emergency.

Time Off Work

The amount of time needed off work will vary depending on the nature of your job. For light office Job, you may only need a few days off work. For heavier Job, you may need a longer period off work. Discuss your individual case with your surgeon.

Post Operative Difficulties

Contact Dr Bernard Lallemand's service if your fingers are more swollen, stiffer or painful than expected, and if you see any discharge, wetness, or detect any unpleasant odours under your dressing.

Outside normal working hours, you may need to attend Emergency Department for help with these issues.

Postoperative physiotherapy 06

Immediate Postoperative Period (Day 0–Week 2)

- Dressings: Keep wound clean and dry; change dressings as instructed by the surgeon
- Pain Management: Use prescribed analgesics and elevate the hand to reduce swelling.
- Mobility Exercises: Begin gentle active range of motion (AROM) exercises for unaffected joints.

Early Rehabilitation (Week 2–Week 6)

Wound Care: Stitches removed (if nonabsorbable); monitor for signs of infection.

Initial Evaluation: A physiotherapist will perform an initial assessment to check the hand and wrist.

Therapy Focus:

- Gentle active and passive range of motion (AROM/PROM) of the fingers.
- Scar management techniques (e.g., massage, silicone gel sheets).
- Edema control through compression or elevation.

Strengthening and Functional Recovery (Week 6–Week 12)

Initial Evaluation: A physiotherapist will perform an initial assessment to check the hand and wrist.

Therapy Focus:

- Gentle active and passive range of motion (AROM/PROM) of the operated finger.
- Progressive strengthening exercises, including grip and pinch training.
- Advanced scar desensitization if tenderness persists.

Long-Term Maintenance (Week 12 and Beyond)

Home Program: Continue with daily exercises for strength and flexibility.

Follow-Up: Regular check-up with the surgeon and therapist to monitor recovery and address recurrence.

Lifestyle Modifications: Avoid repetitive hand trauma or stress that may contribute to recurrence.

Most patients transition through therapy without complications and typically require 6 - 10 therapy visits. Always follow your physiotherapist's instructions for the best recovery