

Mallet Finger Rehabilitation Protocol

Surgical Management

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There are two types of Mallet Finger deformity. The first type is called a bony mallet deformity which involves a fracture of the bone. The extensor tendon is attached to this bone. The second type is called a soft tissue mallet deformity. A soft tissue mallet deformity involves only the extensor tendon which is torn off the bone. The soft tissue mallet deformity has a worse prognosis because it is more difficult for the tendon to heal to the bone. The bony mallet deformity has a better prognosis because the bone fragment heals more reliably to the bone.

1-14 Days Postoperative

- Do NOT remove the surgical bandage.
- Restrictions: No heavy lifting or pulling greater than 0 lbs. for the involved finger for 8 weeks.
- The patient is to begin active and passive range of motion of the uninvolved fingers to prevent stiffness and reduce swelling.

10-14 Days Postoperative

- The therapist will fabricate a protective distal interphalangeal (DIP) orthosis with the PIP joint free. The purpose of the orthosis is to protect the K-wire from bending or migrating. Also, the orthosis will help prevent displacement of bone fragments if there was a fracture.
- The orthosis is to be worn at all times. The orthosis may be removed for hygiene purposes.
- The therapist will instruct proper skin care to prevent skin breakdown. The skin should be completely dry before re-applying the orthosis.
- The therapist will instruct a home exercise program (HEP) to maintain PIP and MCP joint range of motion.

6 Weeks Postoperative

- Finger AP/Lateral x-rays (out of the splint) are performed to assess the hardware (k-wire) for bending or migration and to evaluate healing of the fracture fragment (if present.)
- The tentative surgery date is confirmed to remove the K-wire.

8 Week Postoperative (After K-wire removal)

- Active range of motion (AROM) Trial
 - While supporting the finger, gently flex the tip (DIP joint) of the finger. Do NOT force the finger to bend. Then return the finger to a straight position. Perform this exercise for 10 repetitions. Re-apply the orthosis. Repeat the exercise

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regimen 3 (three) times daily for one week. Continue orthosis wear at all times, between exercises and when sleeping.

- o STOP the exercise program if the finger develops a mallet deformity (fingertip drooping) or you are unable to actively extend the finger. Re-apply the orthosis and wear it full-time for 2 (two) weeks. After two weeks, try the exercise program again. If the finger develops a mallet deformity again, then contact Dr. Holtkamp's office.
- o If the first week of the AROM Trial is successful, then increase the exercise regimen to 5 (five) times daily for one week. Continue orthosis wear at all times, between exercises and when sleeping.

10 Weeks Orthosis Program

- If the AROM Trial was successful, then begin to gradually decrease the orthosis wear during the day. Remove the orthosis for one hour the first day during daily tasks. Then replace the orthosis for the remainder of the day. Increase the time out of the orthosis by one hour each day.
- Continue to wear the orthosis when sleeping.

12 Weeks Orthosis Program

- For a bony mallet deformity, the orthosis can be discontinued.
- For a soft tissue mallet deformity, continue to wear the orthosis when sleeping for another 4 weeks.
- It is acceptable to have up to 20 degrees of an extensor lag at the end of the protocol. The slight bend at the fingertip is considered functional and should not interfere with activities of daily living.
- There may be some tenderness over the joint. This will improve with time. The healing process can take up to a full year.