

Bony Mallet (Surgical Repair)

REHABILITATION PROTOCOL

Patient Name: _____ **Date:** _____

Diagnosis: _____

Surgery: _____ **Surgery Date:** _____

Indications:

Surgery is indicated for bony mallets when the avulsed distal fragment is 50% or greater of the articular surface of the distal phalanx.

Surgical Procedure

An incision is made along the area of the distal phalanx and DIP joint. The displaced bone fragment is reapproximated at its point of insertion along the distal phalanx. K-wire fixation is performed positioning the DIP joint in extension. The incision is closed and a light compressive dressing is applied to the hand.

Post-Operative Rehabilitation

3 days Postop

- The hand dressing is removed. Edema control is initiated consisting of a 3" elastic stockinette to the hand and forearm and either 1" Coban™ or fingersocks to the digit.
- A tip protector is applied to the DIP joint for continual wear. Great care is made to ensure the distal tip of the splint does not place pressure along the pin.
- Active and PROM exercises are initiated to the MP and PIP joints.
- The base of the pin is cleaned daily with hydrogen peroxide. A cotton swab is used to apply the hydrogen peroxide at the base of the pin. This helps to avoid a pin tract infection.

6 Weeks Postop

- The DIP joint pin is removed by the physician.
- AROM exercises are initiated to the DIP joint 6 times a day for 5-10 minute sessions.

- A mallet splint is fitted to wear between exercise sessions and at night in the place of the initial tip protector.

7 Weeks Postop

- Gentle PROM exercises may be initiated to the DIP joint so long as an extensor lag is not present at the DIP joint.

8 Weeks Postop

- Taping and/or dynamic flexion splinting may be initiated to enhance passive flexion at the DIP joint as necessary. When initiated, it is important to monitor for an extensor lag.
- The mallet splint is continued between exercise sessions and at night.

9 Weeks Postop

- The wearing time in the mallet splint is progressively reduced during the day. Typically, over the course of 7-10 days, the splint is reduced 1 hour each day with the goal of it being completely discontinued within one to two weeks.

10 Weeks Postop

- Discontinue the splint during the day.

12 Weeks Postop

- Discontinue the splint at night.

Considerations

- As active range of motion exercises are initiated, it is important to monitor for an extensor lag. It is extremely difficult to recapture DIP extension. Therefore, a more aggressive PROM exercise program is recommended in the late state of therapy to avoid developing an extensor lag.