



Orthopaedic Protocols

Boutonniere Deformity Conservation Management [Acute Injury: <3 weeks from initial injury]

Weeks 0-6:

- Edema control is initiated as necessary for the digit utilizing Coban or fingersocks.
- A volar gutter is fitted, positioning the PIP joint in full extension with the Dip joint left knee for ROM. The splint is worn continuously. A dorsal splint may be fabricated in conjunction with the volar splint to maximize full PIP joint extension. In addition, as the acute edema has subsided, a cylinder cast may be considered to maximize excellent stability & positioning of the PIP joint in neutral.
- Active & PROM exercises are initiated to all joints of the hand with the exception of the PIP joint that has been immobilized. The key exercise is both active & passive flexion to the DIP joint. This will place the oblique retinacular ligament on stretch & prevent lateral band adherence & subluxation.

Week 6:

- AROM exercises are initiated to the PIP joint of the involved digit 6 times a day for 5-10 min sessions.
- The PIP joint extension splint is continued between exercise sessions & at night.

Week 7:

- PROM exercises are initiated to the PIP joint as necessary. It is important to monitor for an extensor lag. Should a PIP joint extensor lag greater than 10 degrees develop, the passive flexion should be avoided.
- The wearing schedule with the PIP extension splint can gradually be decreased. To decrease the wearing time 1 hour each day should result in discontinuing the splint during the day between weeks 8 & 9.

Weeks 8-10:

- Assuming excellent extension has been maintained, increased focus can be placed on maximizing full IP joint flexion with dynamic splinting or taping as necessary.
- The extension splint is discontinued both during the day & at night.

A balanced exercise & splinting program is essential to obtain the optimal outcome. The initial splinting must ensure excellent extension at the PIP joint. The splint *must* maintain 0 degree of extension.

Once ROM exercises are initiated *gradually* increase the increase the exercise sessions in order to minimize an extensor lag. It is extremely difficult to recapture extension.

Exercises to emphasize include: passive DIP joint flexion & extension with the PIP joint at 0 degree & blocking the MP joint in flexion while attempting IP extension.