

Agee Digit Widget™

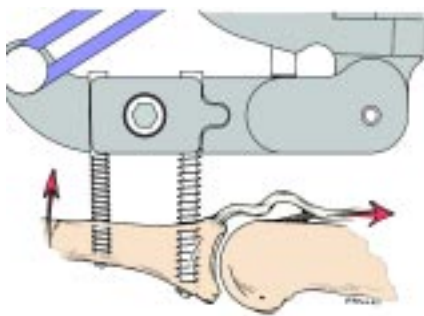
PART THREE IN A SERIES

EXTENSOR TENDON AND THE DIGIT WIDGET



The Digit Widget is a mini external fixator that uses an extension torque to reverse PIP flexion contractures. This torque stimulates longitudinal growth of contracted palmar tissues. This avoids the difficult technical issues that attend a surgical release of the joint. Post operative scarring that aggravates stiffness is minimized.

Today we discuss post traumatic contractures that are secondary to an impotent central slip. In the first example, adhesions proximal to the PIP joint prevent the otherwise competent muscle tendon force from being transmitted to the central slip. In the second example, a malunited proximal phalanx that has shortened on its dorsal side produces a lax extensor tendon that can't extend the joint.



Example 1: Tendon adhesions may tether an otherwise competent extensor. The Digit Widget's extension torque restores length to the contracted palmar tissues but adhesions prevent active extension of the PIP joint. Tendolysis combined with active range of motion exercises should restore active tendon gliding and joint motion. Retaining the Digit Widget during tendolysis may facilitate post op rehab but with some increased risk of infection.

Example 2: This illustrates how a malunited fracture of the proximal phalanx results in a lax extensor mechanism that is incompetent to extend the PIP joint. Joint extension is restored using the Digit Widget. The device is removed and the finger splinted in extension until the pin tracks heal. Through a tendon splitting dorsal approach, an opening wedge osteotomy restores the alignment and length to the phalanx and active joint motion is initiated with a now competent extensor.



NEXT IN SERIES - DIGIT WIDGET - SHOULD I OR SHOULDN'T I ?

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