

Preface
Flexor Tendon Injuries



Daniel P. Mass, MD



Craig S. Phillips, MD

Guest Editors

The *Hand Clinics* debuted 20 years ago with a review on flexor tendon injuries. There have been no subsequent issues dealing with this controversial complex topic, which has produced more articles in the peer-reviewed hand literature than any other single topic. Since Sterling Bunnell's articles advocating not operating on tendons in "no-man's land," there has been ongoing debate about when and how to repair flexor tendons. The question of whether tendons heal intrinsically or require peripheral adhesions to heal is still unanswered.

Due to the unforgiving nature of flexor tendon repairs, these injuries have become the sole domain of the hand surgeon. Human flexor tendons remain unique in their anatomy (micro- and macroscopic), biomechanics, intimacy with the fibro-osseous sheath, and proximity to the neurovascular structures of the digit, as well as the response to trauma and their ability to heal through both extrinsic and intrinsic healing. The dichotomy of regaining tendon strength and gliding while avoiding adhesions or rupture after repair remains an intellectual and technical challenge today, 76 years after Bunnell advocated removing the flexor tendon from the digit and grafting the defect after zone II injury. Due to average functional outcomes, considerable research has emerged over the last 15 years directed toward identifying the "ideal zone II flexor tendon

repair," often overwhelming and confusing the treating surgeon. The goal of this issue of the *Hand Clinics* is to combine long-standing dogma with recent advances associated with flexor tendon repair in all zones to increase understanding of these often complex problems. The diverse content of this issue includes 15 articles encompassing the history of flexor tendon repairs, tendon/pulley biomechanics, the most recent suture techniques, and the ability to alter the flexor tendon milieu through molecular manipulation in an effort to enhance healing and functional outcomes associated with flexor tendon repairs.

The literature is filled with recommendations for flexor tendon repair, yet evidence-based outcome studies are still lacking. Clinical studies have been primarily case reports or small series with no comparison groups. Intellectual understanding and technical detail are paramount when optimizing function after restoring flexor tendon continuity, yet they are useless when not combined with an appropriate, well-supervised postoperative rehabilitation course. For this reason we have included an article highlighting the different postoperative protocols after flexor tendon repair.

The insight afforded by the individual authors of this issue provides a concise yet thorough overview of all injuries to the flexor tendon system.

It is with pride that this anniversary issue be dedicated to those who have spent many hours

attempting to solve the mysteries associated with improving results after flexor tendon repair.

Daniel P. Mass, MD
*Section of Orthopaedic Surgery and
Rehabilitation Medicine
University of Chicago Pritzker School of Medicine
University of Chicago Hospitals
5841 South Maryland Avenue, MC 3079
Chicago, IL 60637, USA*

E-mail address: dmass@surgery.bs.d.uchicago.edu

Craig S. Phillips, MD
*Reconstructive Hand and Microvascular Surgery
The Illinois Bone and Joint Institute
Evanston Northwestern Healthcare
Glenview, IL USA*
E-mail address: handphillips@hotmail.com