



BRITISH ASSOCIATION
OF HAND THERAPISTS

Standards of hand therapy practice in the rehabilitation of surgically repaired finger extensor tendons: zones I-II

Endorsed by:

British Association of Hand Therapists

Devised by the Repaired Zone I and II Finger Extensor Tendon Injuries
Standards Working Group, 2023

Further information is available from: <https://www.hand-therapy.co.uk>

**This BAHT Standard has been developed to compliment the respective
BSSH Standard of Care in Hand Trauma. It is based on research and
expert opinion.**

Definition:

These standards relate to the treatment of all repaired Zone I and Zone II finger extensor tendon injuries in children and adults.

Mallet injuries are a common hand injury. It is important to be aware that even with all appropriate management, patients may not achieve a 'perfect' cosmetic outcome. The main goal is to recover as much fingertip extension as possible, prevent complications, such as swan neck deformity, and regain a functional digit

Standards:

Including Doyle classification

Type II: laceration at or proximal to DIPJ with loss of tendon continuity

Type III: deep abrasion with skin loss, subcutaneous cover, and tendon substance

1. Fingertip extension should be maintained with an appropriate temporary splint fitted by the surgeon in theatre.
2. Assessment and formulation of a treatment plan to be provided by a specialist hand therapist or appropriately trained therapist with direct access to specialist support. Access to accurate operative details is imperative.
3. The patient should be seen by a specialist hand therapist within 7 days of surgery and fitted with an appropriate splint maintaining fingertip extension for the immobilisation period. *In the case of children, the splint design should be sufficiently large and well secured to prevent a choking risk.*
4. There should be easy communication and rapid access to the Hand team/surgical team if the therapist has concerns at any point.

5. Patients should be offered follow-up hand therapy appointments depending on the clinical need considering tendon integrity, fit of splint, independence in splint management, compliance, swelling, PIP joint mobility and wound/skin quality.

6. Rehabilitation should be supported by verbal, written and/or electronic information.

7. After the initial immobilisation period and once tendon integrity has been established, DIP joint movement should be progressed. The immobilisation splint can be gradually withdrawn but some form of splint wear may be required for several weeks.

8. Virtual appointments or patient initiated follow ups can be utilised at clinicians' discretion

9. A set of outcome measures should be taken during therapy and upon discharge. This should include range of motion in comparison with the contralateral digit, grip strength and a patient reported outcome measure (PROM).

10. In the absence of a satisfactory outcome, the patient should be referred to a hand surgeon to discuss other treatment options.

Implementation of these standards should be used to guide to advise therapists in the clinical setting. It is recognised that care may be influenced by factors including access to hand therapy, nature of injury, patient characteristics and surgical management. Professional judgement, based on clinical reasoning, will strongly influence the management and outcome following flexor tendon injury. There should be some shared decision making in selecting the treatment regimen.

Evidence and Supporting Literature

Doyle (1999) 'Extensor tendons- acute injuries' In Green DP, Hitchkiss RN (Eds) *Operative Hand Surgery*. Churchill Livingstone. New York pp 1925-1955.

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Skirven T, Osterman A, Fedorczyk J, Amadio P (2011) 6th ed. 'Extensor Tendon Injury and Rehabilitation' in *The Rehabilitation of the Hand and Upper Extremity*. Elsevier Mosby: Philadelphia. Pg 511-513.

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