



BRITISH ASSOCIATION  
OF HAND THERAPISTS

## **Standards of hand therapy practice in the rehabilitation of closed, non-surgically managed, finger extensor tendon injuries: zone III (central slip injury)**

**Endorsed by:**

British Association of Hand Therapists

Devised by the Extensor Tendon Injuries Standards Working Group, 2022

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.**



## Standards

1. Assessment and formulation of a treatment plan will be provided by a specialist hand therapist or appropriately trained therapist with direct access to specialist support and following a competent diagnosis.
2. There should be easy communication and rapid access to the Hand team/surgical team if the therapist has concerns at any point.
3. Ideally the patient should be seen within 7 days of initial presentation.
4. A protective splint to maintain central slip integrity should be used for 6 weeks. Some protected movement may be considered, particularly with a bony avulsion injury. There should be some shared decision making between the patient and therapist in selecting the treatment regimen.

Note: In the absence of full passive PIP joint extension a period of splinting / casting should be undertaken before initiating the above regimen.

5. After the initial immobilisation period and once central slip integrity has been established, movement should be progressed. The splint can be gradually withdrawn but some form of splint wear may be required for several weeks.
6. The MCP joint and DIP joint should be mobilised from the first appointment (unless there are any associated injuries).
7. Regular follow-up appointments should be offered to ensure that the patient is managing the regimen i.e. correct splint wear; unaffected joint mobility; appropriate progression of movement; oedema management; and skin integrity.



8. The rehabilitation regimen should be supported by verbal, written and / or electronic information.
9. A set of outcome measures should be taken during therapy and upon discharge. This should include range of motion, strength (ideally including the contralateral side) and patient reported outcome measures (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 and advise therapists in the clinical setting. However, it is recognised that care may be influenced by factors including access to hand therapy, injury as well as patient characteristics. Professional judgement, based on clinical reasoning, will strongly influence the management and outcome.**

## **References**

- Capon A, Watson, A and England, H. Therapeutic management of closed central slip injuries: Outcome of a service evaluation. *Hand Therapy* 2019; 24: 3-12.
- Chinchalkar SJ, Gan BS. Management of proximal interphalangeal joint fractures and dislocations. *Journal of Hand Surgery* 2002; 16: 117-128.
- Evans R. Early active short arc motion for the closed central slip injury. *Journal of Hand Therapy* 2010; 23: e15.
- Lalonde, D. Managing Boutonniere and swan-neck deformities. *BMC Proc* 2015; 9: A50.
- Lin JD, Strauch RJ. Closed soft tissue extensor mechanism injuries (mallet, boutonniere, and sagittal band). *Journal of hand Surgery (Am)* 2014; 39 (5): 1005-11.



Maddy LS, Meyerdierks EM. Dynamic extension assist splinting of acute central slip lacerations. *Journal of Hand Therapy* 1997; 10(3): 206–212.

Souter W. The Boutonniere deformity: a review of 101 patients with division of the central slip of the extensor expansion of the fingers. *J Bone Joint Surg* 1967; 49B: 710-721.

Strauch RJ. *Extensor tendon injury* in: Wolfe S. et al (eds) *Green's operative hand surgery* (7<sup>th</sup> ed) 2016; Elsevier: Philadelphia.

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