

# 2023 NEHS Annual Meeting Abstract Submission

COMPLETE

NEHS Vice President, Daniel Mastella, M.D., is currently accepting abstract submissions for presentation at our Annual Meeting on December 1, 2023.

This meeting will be held at the Sturbridge Host Hotel in Sturbridge, MA.

Therapists, NPs, and PAs are also encouraged to submit.

THE DEADLINE FOR SUBMISSION IS OCTOBER 15, 2023

RESIDENTS AND FELLOWS ONLY. Please indicate if you want your paper to be considered for the prestigious H.Kirk Watson, M.D. Founder's Award. The abstracts for award consideration will be presented in the morning and the award will be presented in the afternoon.

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## \* ABSTRACT TITLE

A Comparison of Nonoperative Treatment of Full-thickness Thumb Ulnar Collateral Ligament Tears vs. Minimally Displaced Avulsion Fractures

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## \* Contact Person Name

Ingmar W. F. Legerstee

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## \* Name of who will present abstract at NEHS meeting on December 1, 2023 Please note that the same person cannot present more than one abstract at the meeting.

Ingmar Legerstee

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## \* Please indicate if the presenter is:

Not currently a resident or fellow

**\* List full names of abstract authors Please note - one of the lead authors must be present at the meeting to answer questions about the paper.**

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**\* ABSTRACT - should include background information and a description of methods, programs, or practices.**

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**Purpose** There is debate regarding nonoperative versus acute operative treatment of complete thumb ulnar collateral ligament (UCL) tears without Stener lesions and UCL avulsion fractures. The aim of this study is to compare the failure rate of conservative treatment of full-thickness tears versus minimally displaced avulsion fractures of the thumb UCL.

**Methods** Two urban hospital databases in a single city in the United States were queried for patients with full-thickness thumb UCL tears or UCL avulsion fractures who underwent nonoperative treatment for a minimum of 4 weeks between January 2004 and December 2021. Failure of conservative treatment was defined as indication for surgery after the initial immobilization period. Fisher's exact test was performed to compare the treatment failure rate between full-thickness tears and avulsion fracture injuries.

**Results** Twenty-one patients (26%) with a full-thickness tear and 60 (74%) patients with a minimally displaced fracture initially treated nonoperatively were identified. The failure rate in the full-thickness tear group was significantly higher than in the minimally displaced fracture group (5/21 vs 3/60, p-value < 0.05).

**Conclusion** Although patients with avulsion fractures had a significantly higher conservative treatment success rate than patients with full-thickness tears, a near 3/4 success rate in patients with full-thickness tears without Stener lesions could reflect that splinting or casting might be a reasonable treatment option for this injury. Additionally, conservative treatment of minimally displaced UCL avulsion fractures may be more successful than prior reports in literature.

Level of Evidence: III (Therapeutic)

**Please attach files with diagrams and/or photos to support your abstract (10 MB limit)**

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**\* Please attach the abstract presenter's CV**

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**Table 1: Baseline Patient Characteristics**

Variable	Overall (n = 81)	Full-Thickness Tear (n = 21)	Fracture (n = 60)
	<i>Median (IQR)</i>	<i>Median (IQR)</i>	<i>Median (IQR)</i>
Age at injury (years)	43 (28 - 52)	46 (40 - 52)	41 (26 - 52)
Injury-to-treatment time (days)	3 (1 - 9)	6 (0 - 60)	3 (1 - 6)
	<i>n (%)</i>	<i>n (%)</i>	<i>n (%)</i>
Male	50 (62)	9 (43)	41 (68)
Caucasian	69 (87)	17 (81)	52 (90)
MRI	18 (22)	15 (71)	3 (5)
Injury location			
Distal	72 (95)	15 (94)	57 (95)
Proximal	4 (5)	1 (6)	3 (5)
Smoker	10 (13)	2 (10)	8 (14)
Dominant hand injury	43 (56)	13 (62)	30 (54)
Diabetes mellitus	3 (4)	1 (5)	2 (3)
Weeks of conservative treatment			
4	16 (20)	4 (19)	12 (20)
5	9 (11)	3 (14)	6 (10)
6	56 (69)	14 (67)	42 (70)

\*Data were partially missing for age at injury (n = 75), injury-to-treatment time (n = 75), race (n = 79), injury location (n = 76), smoker (n = 80), and hand dominance (n = 77)

SD, standard deviation; IQR, interquartile range; MRI, magnetic resonance imaging