## 2022 NEHS Annual Meeting Abstract Submission



NEHS Vice President, Daniel Mastella, M.D., is currently accepting abstract submissions for presentation at our Annual Meeting on December 2, 2022.

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, 2022

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.

CREATED	IP ADDRESS
PUBLIC Oct 11th 2022, 4:57:45 pm	
* ABSTRACT TITLE	
Improved outcomes in Palmaris longus (PL) autograft tendon repair compared to Extensor indicis petensor pollicis longus (EPL) rupture	oroprius (EIP) transfer after
* Contact Person Name	
Toni Engmann	
* Contact Person Email	
* Contact Person Phone Number	
* Name of who will present abstract at NEHS meeting on December 2, 2022 Please note that the same person cannot present more than one abstract at the meeting.	
Toni Engmann	
* Please indicate if the presenter is:	
Not currently a resident or fellow	
* List full names of abstract authors	

Toni Engmann, Stephen Stearns, Allan Weidman, Lauren Valentine, Arriyan Samandar Dowlatshahi

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

INTRODUCTION: EPL rupture is commonly associated with fractures of the wrist, lacerations or chronic inflammatory conditions. Current surgical options for EPL rupture include either a free tendon graft, EIP tendon transfer or primary suture. In this analysis we are looking at EIP and PL reconstructions. The PL autograft may offer superior fine motor control and greater ease of post-operative recovery without the need for neuroplasticity to rehabilitate the tendon transfer. However, concerns have been raised over the potential lack of proximal EPL tendon excursion if the muscle is shortened and scarred. Therefore, the tendon graft reconstruction is commonly not commonly performed in the United States.

METHODS: This retrospective study gathers demographic, surgical, and outcome data of all patients who presented to our institution with an EPL rupture. Patients were identified using CPT and ICD-9/10 codes. Summary statistics were calculated, with chi-squared and T-test used for subgroup analysis.

RESULTS: 38 patients with EPL rupture were identified. 8 patients were treated with PL graft and 30 patients were treated with EIP transfer. PL patients had a stronger reduction in DASH scores (initial encounter to final) than EIP patients (75% vs. 33%). EIP patients had a lower average pinch strength than PL patients (72% vs. 92% of non-injured hand) and a lower grip strength (75% vs. 98%). 3% of EIP patients experienced index extension lag or limited EPL function. None of these complications occurred in the PL group.

CONCLUSION: Patients who underwent PL graft reconstruction had better outcomes and fewer complications than patients with EIP transfer. These findings indicate the superiority of PL graft surgery. Since the sample size is rather small further research should be done.

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

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

cv.research\_fellow.pdf