

## Accepted Manuscript

Carpal Tunnel Syndrome Impairs Index Finger Responses to Unpredictable Perturbations

Emily L. Grandy, Kaihua Xiu, Tamara L. Marquardt, Chengliu Li, Peter J. Evans, Zong-Ming Li

PII: S1050-6411(17)30007-X

DOI: <http://dx.doi.org/10.1016/j.jelekin.2017.03.001>

Reference: JJEK 2062

To appear in: *Journal of Electromyography and Kinesiology*

Received Date: 11 January 2017

Revised Date: 9 March 2017

Accepted Date: 10 March 2017

Please cite this article as: E.L. Grandy, K. Xiu, T.L. Marquardt, C. Li, P.J. Evans, Z-M. Li, Carpal Tunnel Syndrome Impairs Index Finger Responses to Unpredictable Perturbations, *Journal of Electromyography and Kinesiology* (2017), doi: <http://dx.doi.org/10.1016/j.jelekin.2017.03.001>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Revision: March 9, 2017  
Submission: January 10, 2017  
Journal: Journal of Electromyography and Kinesiology

## **Carpal Tunnel Syndrome Impairs Index Finger Responses to Unpredictable Perturbations**

Emily L. Grandy, MS<sup>1</sup>, Kaihua Xiu, PhD<sup>1</sup>, Tamara L. Marquardt, BS<sup>1</sup>, Chengliu Li, PhD<sup>1</sup>,  
Peter J. Evans, MD, PhD<sup>2</sup>, Zong-Ming Li, PhD<sup>1,2,3</sup>

<sup>1</sup>*Hand Research Laboratory, Department of Biomedical Engineering, Cleveland Clinic, Cleveland, Ohio*

<sup>2</sup>*Department of Orthopaedic Surgery, Cleveland Clinic, Cleveland, Ohio*

<sup>3</sup>*Department of Physical Medicine and Rehabilitation, Cleveland Clinic, Cleveland, Ohio*

Emails:

ELG: [grandye@ccf.org](mailto:grandye@ccf.org)

KHX: [kaihua.xiu@gmail.com](mailto:kaihua.xiu@gmail.com)

TLM: [marquat@ccf.org](mailto:marquat@ccf.org)

CLL: [chengliu.li@gmail.com](mailto:chengliu.li@gmail.com)

PJE: [evansp2@ccf.org](mailto:evansp2@ccf.org)

ZML: [liz4@ccf.org](mailto:liz4@ccf.org)

### **Correspondence to:**

Zong-Ming Li, PhD

Biomedical Engineering/ND20

Cleveland Clinic

9500 Euclid Avenue

Cleveland, OH 44195

Phone: (216) 444-1211

Fax: (216) 444-9198

Email: [liz4@ccf.org](mailto:liz4@ccf.org)

**Word Count:** 4,123

**Running Title:** Carpal tunnel syndrome impairs finger responses to unpredictable perturbations

**Key Words:** Carpal tunnel syndrome, Sensorimotor deficit, Perturbation, Response

### **Financial Disclosure**

We confirm that there are no known conflicts of interest associated with this publication and there was no significant financial support for this work that could have influenced its outcome.

**Funding Sources:** National Institutes of Health (NIH/NIAMS R01AR056964)

Download English Version:

<https://daneshyari.com/en/article/8799842>

Download Persian Version:

<https://daneshyari.com/article/8799842>

[Daneshyari.com](https://daneshyari.com)