

Elizabeth N. Martin

Office Address:

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Education:

- College: Johns Hopkins University, Baltimore, MD; Degree: B.S, Cellular and Molecular Biology, Minor in French Literature, September 2001-May 2005
- Graduate School: Johns Hopkins Bloomberg School of Public Health, Baltimore, MD. Degree: Master in Health Sciences, Biochemistry and Molecular Biology August 2005- May 2006
- Medical School: Oregon Health & Sciences University School of Medicine, Portland, OR. Degrees: MD, MPH, August 2007- May 2012

Post-Graduate Training:

- Internal Medicine Resident, Preliminary Year, Providence Portland Medical Center, Portland OR, July 2012- June 2013
- PM&R Resident, Stanford University Hospital & Clinics, Palo Alto CA July 2013- June 2016
- Pediatric Rehabilitation Medicine Fellow, Seattle Children's Hospital, Seattle, WA, July 1, 2016-June 2018

Licensure and Certification:

Tennessee Department of Health, expires 12/31/2024
Medical Board of California, expires 12/31/23
Washington State Medical Board, expired 12/25/20

Specialty Board Certification:

Physical Medicine & Rehabilitation, 7/1/2017-12/31/2027
Pediatric Rehabilitation Medicine 12/1/2018 - 12/31/2028
Brain Injury Medicine 12/1/2020- 12/31/2030

Hospital Appointments:

Pediatric Rehabilitation Medicine, Mary Bridge Children's Hospital, October 1, 2018 – September 10, 2019
Physical Medicine & Rehabilitation, Pediatric Rehabilitation Medicine, Vanderbilt University Medical Center, October 1, 2019-current
Physical Medicine & Rehabilitation, Pediatric Rehabilitation Medicine, Monroe Carrell Jr Children's Hospital at Vanderbilt, October 1, 2019-current

Employment:

- Research Assistant to Michael K. Lee, PhD, Johns Hopkins Hospital, Baltimore, MD 2002-2004
- Research Assistant to Karen Zimmer, MD, Johns Hopkins Hospital, Baltimore, MD 2005-2006
- Osteogenesis Imperfecta Registry Manager, Kennedy Krieger Institute, Baltimore, MD 2006-2007

Professional Organizations:

American Academy of Cerebral Palsy and Developmental Medicine

American Academy of Physical Medicine & Rehabilitation

Association of Academic Physiatrists

American Medical Association

Professional Activities:

- American Academy of Physical Medicine and Rehabilitation, Resident council member, Quality, Practice, Policy and Research Committee AAPM&R Resident Physician Council, 2013-2014
- Association of Academic Physiatrists Rehabilitation Medicine Scientist Training Program (RMSTP) 2013-2019
- American Academy of Physical Medicine and Rehabilitation, President, AAPM&R Resident Physician Council, 2014-2015
- American Academy of Physical Medicine and Rehabilitation Board of Governors, Resident Council Representative 2014-2015
- American Academy for Cerebral Palsy and Developmental Medicine Student Scholarship Recipient, 2015
- American Academy of Physical Medicine and Rehabilitation, Nominating Committee, AAPM&R Resident Physician Council, October 2015- October 2016
- Association of Academic Physiatrists, Fellow Representative, AAP Resident & Fellow Council, February 2016-February 2017

- Senior Member, Stanford Resident Safety Council, 2015-2016

- Reviewer, Bone Journal, 2014-2016
- Reviewer, Pediatric Passages, AAPM&R Pediatric Rehabilitation Council 2017-2018
- Reviewer, Archives of Physical Medicine and Rehabilitation, 2018-current
- Reviewer, Archives of Rehabilitation Research and Clinical Translation, 2019 – current
- Reviewer, PM&R: The Journal of Injury, Function and Rehabilitation, 2020-current

- AAPM&R representative to the AAN Child Neurology Quality Measures Workgroup (2020-current). Current workgroups:
 - Cerebral Palsy measures
 - Movement Disorder measures
 - Headache measures
- AAPM&R Early Career Psychiatrists Member Community Council Co-Chair (2021-current)

Teaching Responsibilities:

- Teaching Assistant, OHSU Biomedical Informatics Department, Portland OR 2011, Course Director: Paul Gorman, MD.
- Small Group Leader, Neurorehabilitation Course, University of Washington PM&R, October-December 2016 and October-December 2017, Course Director: Jennifer Zumsteg, MD
- Guest Lecturer, Seattle Children's Hospital Pediatric Resident Noon Lectures March 31, 2017, "Cerebral Palsy and the Gross Motor Function Classification Scale"
- Lecturer, Seattle Children's Rehabilitation Medicine Didactics, July 28, 2017 "Cerebral Palsy: Overview and Clinical Management"
- Guest Lecturer, Stanford PM&R Resident Didactics, yearly 2017-2019 "Pediatric Orthotics", "Pediatric Prosthetics", "Pediatric Limb Deficiencies"
- Guest Lecturer, Harrison Medical Center Pediatrics Department, Silverdale, WA, January 14, 2019 "Acute Flaccid Myelitis: Post-Acute Rehabilitation"
- Guest Lecturer, Valley Medical Center Pediatrics, Renton, WA, April 17, 2019 "Acute Flaccid Myelitis: Post-Acute Rehabilitation"
- Vanderbilt PM&R Residency Didactic Curriculum, Pediatric Rehabilitation section, October 2019-current

Research Program:

Oregon Clinical and Translational Research Institute (OCTRI) OSLER TL-1 Award 2010-2011

Autism and Developmental Disabilities Monitoring ([ADDM](#)) Network. CDC-RFA-DD23-2301 to support Cerebral Palsy monitoring at Vanderbilt University Medical Center. PI Z Warren, A Weitlauf.

Publications and Presentations:

Articles in refereed journals:

- Wang J, Martin E, Gonzales V, Borchelt DR, Lee MK. Differential regulation of small heat shock proteins in transgenic mouse models of neurodegenerative diseases. *Neurobiol Aging*. 2008 Apr;29(4):586-97. PMID: 17316906
- Martin E, Haney E, Wu Y, Shapiro JR. Characteristics of the Osteogenesis Imperfecta Registry Population. *Journal of Investigative Medicine*, Vol.58 (1): 351, 2010

- Martin E, Haney E, Shannon J, Cauley J, Ensrud K, Keaney TM, Zmuda JM, Orwoll ES, Harrison SL, Marshall LM. Femoral Volumetric Bone Density, Geometry and Strength in Relation to 25-Hydroxy Vitamin D in Older Men. *J Bone Miner Res.* 2014 Nov 24. PMID: 25418140
- Smuck M, Schneider BJ, Ehsanian R, Martin E, Kao MJ. Smoking is Associated with Pain in All Body Regions, with Greatest Influence on Spinal Pain. *Pain Med.* 2020 Sep 1;21(9):1759-1768. PMID 31578562
- Ahluwalia R, Bass P, Flynn L, Martin E, Riordan H, Lawrence A, Naftel RP. Conus-level combined dorsal and ventral lumbar rhizotomy for treatment of mixed hypertonia: technical note and complications. *J Neurosurgery: Pediatrics* 2020 Oct 9;1-6. PMID: 33036004
- Weatherly A; Wang L; Lindsell CJ; Martin E; Hedden K; Heider C; Pearson J; Betters K. The Physical Abilities and Mobility Scale as a New Measure of Functional Progress in the PICU. *J Pediatr Intensive Care* 2021. DOI: 10.1055/s-0041-1740215
- In press: Carozza R, Mohanty D, Wolf MS, Martin E, Anderson J, Pagano L. Paroxysmal Sympathetic Hyperactivity: Development of a Pediatric Clinical Practice Guideline. *Hospital Pediatrics*

Books, book chapters, invited review articles:

- Martin E, Shapiro JR. Osteogenesis Imperfecta: Epidemiology and Pathophysiology. *Current Osteoporosis Reports* 2007, Sep 5(3):91-97. PMID: 17925189
- Martin E, Orwoll E. Pharmacologic Treatment of Osteogenesis Imperfecta: New Agents and their Potential Implications for Osteogenesis Imperfecta. In *Osteogenesis Imperfecta: A Translational Approach to Brittle Bone Disease*. Editor Jay R. Shapiro, Assoc Editors Peter. H Byers, Francis Glorieux, Peter D. Sponseller. Elsevier Publications 2014, pp 519-523.
- Pico E, Martin E. Summary Data from the UCSF and Children’s Hospital and Research Center Oakland (CHRCO), UCSF Benioff Children’s Hospital San Francisco and Oakland National Spina Bifida Registry (NSBR) 2011-2014. Study Close-Out Report and Summary data provided to the CDC for grant FOA# RFA-DD-011-001.
- Dubon M, Martin E, Paulsen A. “Myotonic Dystrophy”. *Orthopedics for the Newborn and Young Child: A Practical Clinical Guide*. Edited by Sarward JF, Carl RL. Springer Cham, 29 December 2022. ISBN 978-3-031-11135-8

Presentations at Scientific Meetings:

- “The Osteogenesis Imperfecta Registry”. E Martin and J Shapiro. Osteogenesis Imperfecta Clinic at Kennedy Krieger Institute Annual Meeting, Baltimore MD 7/19/06-7/22-06
- “Vitamin D Deficiency in Osteogenesis Imperfecta”. Martin E, BrintzenhofeSzoc K., Shapiro JR. ASBMR Conference on Contemporary

Diagnosis and Treatment of Vitamin D-related disorders, December 4-5 2006

- “Characteristics of the Osteogenesis Imperfecta Registry Population”, E Martin, E Haney, WSMRF Annual Meeting, Carmel CA January 27-30, 2010
- “Femoral Volumetric Bone Density and Dimensions in Relation to Serum 25-Hydroxy Vitamin D Levels Among 888 Elderly Men”. Martin E, Haney E, Shannon J, Cauley J, Ensrud K, Zmuda J, Orwoll ES, Marshall LM. American Society of Bone and Mineral Research Annual Conference, San Diego CA September 16-20, 2011
- “Choreoathetoid Movement Disorder Following Anoxic Brain Injury Due to Cardiac Arrest: A Case Report” E Martin, J Englander, R Wang, MD, AAPM&R Annual Assembly, San Diego, CA November 12-16, 2014
- “Supplemental motor area syndrome following partial frontal lobectomy and anterior callosotomy for refractory epilepsy” E Martin, T Duong, AAP Annual Meeting, San Antonio, TX March 2015
- “Tethered cord development following conservative management of acute spinal epidural hematoma” E Martin, EY Roh, AAP Annual Meeting, San Antonio, TX March 2015
- “Factors associated with access to medical equipment and therapies among children with special healthcare needs” E Martin, L Huffman, AACPD Annual Meeting, Austin TX, October 2015
- “How are perceived unmet need for therapy and durable medical equipment services associated with quality of life measures among children with special healthcare needs?” E Martin, L Huffman, AAPM&R Annual Assembly, Boston MA, October 2015
- “Portable gait trainer use in complex pediatric rehabilitation patients to reduce caregiver burden for discharge: a case series” E Martin and E Pico, AAP Annual Meeting, Sacramento CA, February 2016
- “Subacute Combined Degeneration of the Spinal Cord Secondary to Nitrous-Oxide Abuse” E Martin, J Dorr, A Tryhorn, J Crew, AAP Annual Meeting, Sacramento CA, February 2016
- “Early Rehabilitation after Extracranial-Intracranial Bypass” E Martin, E Loomis, K Flavin, L Huffman. AAP Annual Meeting, Las Vegas NV, February 2017
- “Enteral Dantrolene for the Management of Awake Malignant Hyperthermia: An Unusual Use for a Common Rehabilitation Medication” E Martin, K Pham K, S Apkon. AAP Annual Meeting, Las Vegas NV, February 2017
- “Change in Quality of Life for Children Receiving Inpatient Rehabilitation: A Pilot Study.” E Martin, MD, MPH; S Apkon, MD; K Bjornsen, PhD, PT, Seattle Children’s Hospital Fellow’s College Research Day April 21, 2017
- “Change in Quality of Life for Children Receiving Inpatient Rehabilitation”. E Martin, MD, MPH; S Apkon, MD; K Bjornsen, PhD, PT, AAPM&R Annual Assembly, Denver, CO, October 2017

- “Dear Physiatrist” Let’s Talk about Transition of Care for People with Acquired and Developmental Disabilities.” 2021 AAPM&R Annual Assembly, CNS Community Session. September 30, 2021.
- “Chemodenervation for sialorrhea” K Caldera, E Martin, M Pacheco. Hands on Ultrasound training session, AAPM&R Annual Assembly 2022
- “What should I be asking that I’m not asking?” Navigating new careers, career changes, and career advancement for early career physiatrists.” E Martin, J Chang. Early Career Member Community Session, AAPM&R Annual Assembly 2022

Invited talks:

Spina Bifida Education Day December 8, 2020

Neurocritical Care Lecture series February 3, 2022

Neurology Resident Lecture series April 1, 2020

Spina Bifida Association Southeast Conference March 26, 2022

Organizer/Coordinator for Pediatric PM&R Day 2021 hosted at Vanderbilt.

November 10, 2021