

# HYO-JUNG JEONG, PT, PhD, MS

Pronounced as: Hee-yo-Jee-young Jee-young

Postdoctoral Research Associate

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Program in Physical Therapy

Washington University in St. Louis, St. Louis

## EDUCATION

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**Washington University in St. Louis**, St. Louis, MO 01/2021

Ph.D., Movement Science

Advisors: Mary K. Hastings, PT, DPT, MSCI; Michael J. Mueller, PT, PhD

Dissertation: *Midfoot and Ankle Movement Dysfunction in People with Diabetes Mellitus and Peripheral Neuropathy*. DOI: [doi.org/10.7936/k9q8-tp63](https://doi.org/10.7936/k9q8-tp63)

**Yonsei University**, South Korea 08/2015

M.S., Physical Therapy

Advisor: Heon-Seock Cynn, PT, PhD

Thesis: *Effects of Different Levator Scapula Stretching Positions on Scapular Kinematics and Muscle Activities in Subjects with Short Levator Scapula*

**Yonsei University**, South Korea 02/2014

B.S., Physical Therapy

## PROFESSIONAL LICENSURE

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U.S. Physical Therapist (New York) 02/2023 – current

South Korea Physical Therapist 02/2014 – current

## RESEARCH EXPERIENCE

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**Washington University in St. Louis**, St. Louis, MO 09/2023 – current

Postdoctoral Research Associate, Program in Physical Therapy

Advisor: Mary K. Hastings, PT, DPT, MSCI

- Set-up a start and management for multi-site NIH R01 research project in adults with type 2 diabetes using OnCore (Clinical Trial Management System), RedCap (Database Management System), and EPIC (Health Information Management System).
- Write NIH K99/R00 grant applications in youth-onset type 2 diabetes.

**Marquette University**, Milwaukee, WI 09/2021 – 08/2023

**University of Wisconsin – Milwaukee**, Milwaukee, WI

Postdoctoral Fellow, Joint Department of Biomedical Engineering

Advisors: Gerald F. Harris, PhD, PE (Marquette University)

Brooke A. Slavens, PhD (University of Wisconsin – Milwaukee)

- Design, implement, and conduct research projects in children with joint hypermobility.
- Analyze pediatric pain outcomes and biomechanics data by scripting in R.

- Write internal and foundation grant applications and manage funded research projects.

**Washington University in St. Louis, St. Louis, MO**

Clinical Research Specialist 05/2021 – 08/2021

PhD Graduate Student, Program in Physical Therapy 08/2016 – 01/2021

Advisor: Mary K. Hastings, PT, DPT, MSCI

- Design, implement, and conduct human research in adults with type 2 diabetes.
- Analyze motion analysis data by scripting in Visual 3D, Vicon Nexus, and MatLab.
- Manage lab by training lab assistant students and their work progress.

**Yonsei University, South Korea**

03/2014 – 08/2015

MS Graduate Student, Department of Physical Therapy

Advisor: Heon-Seock Cynn, PT, PhD

- Design, implement, and conduct human research in adults with movement impairments.
- Analyze electromyographic data.

**HONORS & AWARDS**

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Biomechanics Special Interest Group (SIG) Travel Award 02/2025  
Academy of Physical Therapy Research, American Physical Therapy Association

Research Award 10/2022  
Office of Provost, Marquette University, Milwaukee, WI

Professional Development Award 10/2022  
Office of Provost, Marquette University, Milwaukee, WI

Presentation Award (Clinical/Translational category) 11/2020  
Diabetes Day Symposium 2020, Washington University School of Medicine in St. Louis

Outstanding Oral and Poster Presentation Award (Science category) 03/2019  
24<sup>th</sup> Graduate Research Symposium, Washington University in St. Louis

Linked Bachelor-Master Program Scholarship (full tuition) 03/2014, 09/2014, 03/2015  
Yonsei University, Wonju, South Korea

Career Development Scholarship 06/2013  
Yonsei University, Wonju, South Korea

Residential Assistant Scholarship 03/2012, 09/2012, 03/2013  
Yonsei University, Wonju, South Korea

Excellence in Foreign Language Scholarship (full tuition) 03/2012, 09/2012, 03/2013  
Yonsei University, Wonju, South Korea

Han, Gyung-Bum Scholarship (full tuition) 03/2010  
Yonsei University, Wonju, South Korea

Academic Award  
Yonsei University, Wonju, South Korea

02/2010

## GRANTS

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### Funded

MIR Pilot Funds: Identifying Early Signs of Foot Complications in Youth-Onset Type 2 Diabetes Mellitus (Co-PIs: **Jeong, H.** & Hastings, M.K.)

Role: Co-PI, \$3,600 06/2024 – current

International Foundation: The Ehlers-Danlos Society Microgrant Round 2: Analysis of Pain, Psychosocial Factors, and Joint Biomechanics in Children with Hypermobile Ehlers-Danlos Syndrome and Hypermobility Spectrum Disorder (Co-PIs: **Jeong, H.** & Slavens, B. A.)

Role: Co-PI, \$5,000 12/2022 – 12/2023

Marquette University, Office of Provost, Research Award: Reducing ankle complications in children with hypermobile joints (Co-PIs: **Jeong, H.** & Slavens, B. A.)

Role: Co-PI, \$2,160 10/2022 – 06/2023

### Under Review

NIH NIDDK K99/R00: Identifying early signs of foot complications in childhood-onset type 2 diabetes (PI: Jeong, H.) Resubmission *Impact Score: 14*

Role: PI (Mentors: Hastings, M. K., Sprague J., & Lohse K.), \$181,500 11/2024

### Unfunded

American Diabetes Association Postdoctoral Fellowship: Identifying Early Signs of Foot Complications in Youth-Onset Type 2 Diabetes Mellitus (PI: Jeong, H.)

Role: PI (Mentor: Hastings, M. K.), \$155,456 07/2024

NIH NIDDK K99/R00: Identifying early signs of foot complications in childhood-onset type 2 diabetes (PI: Jeong, H.) *Impact Score: 29*

Role: PI (Mentors: Hastings, M. K., Arbelaez A. M., & Lohse K.), \$179,979 02/2024

Concept Paper, Thrasher Research Fund, Early Career Awards: Identifying early signs of bone complications in childhood-onset type 2 diabetes (PI: Jeong, H.)

Role: PI (Mentors: Hastings, M. K. & Scheller E. L.), \$26,750 09/2023

Concept Paper, Thrasher Research Fund, Early Career Awards: Foot and ankle pain and biomechanical mechanisms in children with hypermobile Ehlers-Danlos syndrome (PI: Jeong, H.)

Role: PI (Mentors: Slavens, B. A. & Muriello M.), \$26,750 03/2023

## FELLOWSHIPS & RESEARCH SUPPORT

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NIH R01 DK107809, National Institute of Diabetes and Digestive and Kidney Disease: Chronic Kidney Disease-Mineral Bone Disorder (CKD-MBD) Syndrome in the Diabetic, Neuropathic Foot (PI: Hastings, M. K.)

Role: Postdoctoral Research Associate 09/2023 – current

Postdoctoral Fellowship: National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR), Advanced Rehabilitation Research Training (ARRT) (PI: Harris G. F.)

Role: Postdoctoral Fellow 09/2021 – 08/2023

NIH R01 DK107809, National Institute of Diabetes and Digestive and Kidney Disease: Muscle, Joint, and Movement Deterioration Contributing to Neuropathic Forefoot Deformity (PI:

Hastings, M. K.)

Role: Clinical Research Specialist 05/2021 – 09/2021

Full-time PhD Graduate Student 08/2016 – 01/2021

Balance Plus (industry-sponsored study): Effects of an Insole on Balance Activities (Co-PIs: Mueller, M.J. & Hastings, M. K.)

Role: Full-time PhD Graduate Student, Amount: \$22,576 06/2017 – 01/2019

Program in Physical Therapy, Washington University School of Medicine, Research Division Pilot Award: Foot and Ankle Function in People without Diabetic Peripheral Neuropathy (PI:

Hastings, M. K.)

Role: Full-time PhD Graduate Student, Amount: \$1,000 06/2017 – 10/2019

## PEER-REVIEWED PUBLICATIONS

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### Under Review/ In Preparation

1. Zellers, J. A., Steger-May, K., Commean, P. K., **Jeong, H.**, Kaszyk, E., Mueller, M. J., & Hastings, M. K. Foot-specific exercise intervention for forefoot deformity in individuals with type 2 diabetes and peripheral neuropathy: A randomized controlled clinical trial with 3-year follow-up. *Brazilian Journal of Physical Therapy* (Under minor revision, 07/2024).
2. **Jeong, H.**, Zellers, J. A., & Hastings, M. K. Longitudinal changes in heel rise midfoot and ankle function in people with diabetic peripheral neuropathy. (Under Re-submission process, 03/2025).

### Accepted/ In-press/ Published (9 first-authored, Google Scholar: <http://bit.ly/jeong-hj>)

27. Johnson, J. E., Phinney, A. R., Hastings, M. K., **Jeong, H.**, Chen, L. Thome, A. P., McCormick, J. J., Backus, J. D. What is the Gold Standard for Advanced Hallux Rigidus? Minimum 10-year Follow-up Comparisons of Interposition Arthroplasty and Arthrodesis Show Similar Outcomes. Accepted in *Foot & Ankle Orthopaedics* (Roger A Mann Award Finalist 2024 - nominated for Best Clinical Paper presented at the 2024 Annual Meeting of the American Orthopaedic Foot and Ankle Society)
26. **Jeong, H.**, Tarima, S., Nguyen, A., Qashqai, A., Muriello, M., Basel, D., & Slavens, B. (2024) Lower extremity inter-joint coupling angles and variability during gait in pediatric

- hypermobility spectrum disorder. *Journal of Biomechanics*, 170, 2024, 112151, DOI: [10.1016/j.jbiomech.2024.112151](https://doi.org/10.1016/j.jbiomech.2024.112151)
25. Kaszyk, E., Commean, P. K., Meyer, G. A., Smith, G., **Jeong, H.**, York, A., Chen, L., Mueller, M. J., Zellers, J. A., & Hastings, M. K. (2024) Use of Computed Tomography to Identify Muscle Quality Subgroups, Spatial Mapping, and Preliminary Relationships to Function in those with Diabetic Peripheral Neuropathy. *Gait & Posture*, 112, 159-166. PMID: 38797052, DOI: [10.1016/j.gaitpost.2024.05.016](https://doi.org/10.1016/j.gaitpost.2024.05.016)
  24. **Jeong, H.**, Engel, J. M., Muriello, M., Basel, D., & Slavens, B. A. (2024) The association of pain with gait spatiotemporal parameters in children with hypermobility spectrum disorder and hypermobile Ehlers-Danlos syndrome. *Gait & Posture*, 109, 271-276. PMID: 38368648. DOI: [10.1016/j.gaitpost.2024.02.007](https://doi.org/10.1016/j.gaitpost.2024.02.007)
  23. Youmans, N., Vaidya, R., Chen, L., **Jeong, H.**, York, A., Commean, P. K., Hastings, M. K., & Zellers, J. A. (2023) Rate of tarsal and metatarsal bone mineral density change in adults with diabetes mellitus and peripheral neuropathy: A longitudinal study. *Journal of Foot and Ankle Surgery*, 16, 6. PMID: 36782282. DOI: [10.1186/s13047-023-00606-2](https://doi.org/10.1186/s13047-023-00606-2)
  22. **Jeong, H.**, Engel, J. M., Wilwert, O., Muriello, M., Basel, D., & Slavens, B. A. (2023) Pain characteristics and symptom management in children with hypermobile Ehlers-Danlos syndrome and hypermobility spectrum disorder. *Physical & Occupational Therapy in Pediatrics*, 1-14. PMID: 36647261. DOI: [10.1080/01942638.2022.2163601](https://doi.org/10.1080/01942638.2022.2163601)
  21. Bohnert, K. L., Zellers, J. A., **Jeong, H.**, Chen, L., York, A., & Hastings, M. K. (2023). Remote Research: Resources, Intervention Needs, and Methods in People with Diabetes and Peripheral Neuropathy. *Journal of Diabetes Science and Technology*, 17(1), 52-58. PMID: 35770988. DOI: [10.1177/19322968221103610](https://doi.org/10.1177/19322968221103610)
  20. **Jeong, H.**, Cha, B., Zellers, J. A., Chen, L., & Hastings, M. K. (2022). Midfoot and ankle movement coordination during heel rise is disrupted in people with diabetes and peripheral neuropathy. *Clinical Biomechanics*, 96, 105662. PMID: 35569256. DOI: [10.1016/j.clinbiomech.2022.105662](https://doi.org/10.1016/j.clinbiomech.2022.105662)
  19. **Jeong, H.**, Mueller, M. J., Zellers, J. A., Commean, P. K., Chen, L., & Hastings, M. K. (2022). Body mass index and maximum available midfoot motion are associated with midfoot angle at peak heel rise in people with type 2 diabetes mellitus and peripheral neuropathy. *The Foot*, 51, 101912. PMID: 35255403. DOI: [10.1016/j.foot.2022.101912](https://doi.org/10.1016/j.foot.2022.101912)
  18. **Jeong, H.**, Mueller, M. J., Zellers, J. A., Yan, Y., & Hastings, M. K. (2021). Heel rise and non-weight-bearing ankle plantar flexion tasks to assess foot and ankle function in people with diabetes mellitus and peripheral neuropathy. *Physical Therapy*, 101(7), pzab096. PMID: 33735386. DOI: [10.1093/ptj/pzab096](https://doi.org/10.1093/ptj/pzab096)
  17. Zellers, J. A., Bernhardson, H. J., **Jeong, H.**, Commean, P. K., Chen, L., Mueller, M. J., & Hastings, M. K. (2021). Association of toe-extension movement pattern magnitude and variability during three functional tasks with diabetic foot complications. *Clinical Biomechanics*, 85, 105371. PMID: 33965738. DOI: [10.1016/j.clinbiomech.2021.105371](https://doi.org/10.1016/j.clinbiomech.2021.105371)
  16. **Jeong, H.**, Mueller, M. J., Zellers, J. A., & Hastings, M. K. (2021). Midfoot and ankle motion during heel rise and gait are related in people with diabetes and peripheral neuropathy. *Gait & Posture*, 84, 38-44. PMID: 33264731. DOI: [10.1016/j.gaitpost.2020.11.013](https://doi.org/10.1016/j.gaitpost.2020.11.013)

15. Zellers, J. A., Mueller, M. J., Commean, P. K., Chen, L., **Jeong, H.**, & Hastings, M. K. (2020). Multi-system factors associated with metatarsophalangeal joint deformity in individuals with type 2 diabetes. *Journal of Clinical Medicine*, 9(4), 1012. PMID: 32260124. DOI: [10.3390/jcm9041012](https://doi.org/10.3390/jcm9041012)
14. Hastings, M. K., **Jeong, H.**, Sorensen, C. J., Zellers, J. A., Chen, L., Bohnert, K. L., Snozek, D., & Mueller, M. J. (2020). Relationships within and between lower and upper extremity dysfunction in people with diabetes. *The Foot*, 44, 101680. PMID: 32679515. DOI: [10.1016/j.foot.2020.101680](https://doi.org/10.1016/j.foot.2020.101680)
13. Baik, S., **Jeong, H.**, Lee, J., Park, D., & Cynn, H. (2019). Iliotibial Band Stretching in the Modified Thomas Test Position Changes Hip Abduction Angle and Vastus Medialis Activity in Individuals With Tight Iliotibial Band. *Physical Therapy Korea*, 26(1), 75-83. DOI: [10.12674/ptk.2019.26.1.075](https://doi.org/10.12674/ptk.2019.26.1.075)
12. Lee, J., **Jeong, H.**, Cynn, H., & Kang, T. (2018). Metatarsophalangeal joint flexion affects dorsiflexor activity in subjects with a dominant extensor hallucis longus. *Journal of Back and Musculoskeletal Rehabilitation*, 31(3), 549-556. PMID: 29526839. DOI: [10.3233/BMR-170791](https://doi.org/10.3233/BMR-170791)
11. **Jeong, H.**, Cynn, H., Yi, C., Yoon, J., Lee, J., Yoon, T., & Kim, B. (2017). Stretching position can affect levator scapular muscle activity, length, and cervical range of motion in people with a shortened levator scapulae. *Physical Therapy in Sport*, 26, 13-19. PMID: 28578252. DOI: [10.1016/j.ptsp.2017.04.001](https://doi.org/10.1016/j.ptsp.2017.04.001)
10. Kim, B., Lee, J., **Jeong, H.**, & Cynn, H. (2016). Effects of suboccipital release with craniocervical flexion exercise on craniocervical alignment and extrinsic cervical muscle activity in subjects with forward head posture. *Journal of Electromyography and Kinesiology*, 30, 31-37. PMID: 27261928. DOI: [10.1016/j.jelekin.2016.05.007](https://doi.org/10.1016/j.jelekin.2016.05.007)
9. Kim, B., Lee, J., **Jeong, H.**, & Cynn, H. (2016). Can Suboccipital Release Followed by Cranio-Cervical Flexion Exercise Improve Shoulder Range of Motion, Pain, and Muscle Activity of Scapular Upward Rotators in Subjects With Forward Head Posture? *Physical Therapy Korea*, 23(2), 57-66. URL: <http://koreascience.or.kr/article/JAKO201616553237220.page>
8. Lee, J., Cynn, H., Choi, W., **Jeong, H.**, & Yoon, T. (2016). Various shrug exercises can change scapular kinematics and scapular rotator muscle activities in subjects with scapular downward rotation syndrome. *Human Movement Science*, 45, 119-129. PMID: 26625348. DOI: [10.1016/j.humov.2015.11.016](https://doi.org/10.1016/j.humov.2015.11.016)
7. Lee, J., Cynn, H., Choi, W., **Jeong, H.**, & Yoon, T. (2016). Reliability of levator scapulae index in subjects with and without scapular downward rotation syndrome. *Physical Therapy in Sport*, 19, 1-6. PMID: 27134210. DOI: [10.1016/j.ptsp.2015.07.002](https://doi.org/10.1016/j.ptsp.2015.07.002)
6. Choi, W., Cynn, H., Lee, C., Jeon, H., Lee, J., **Jeong, H.**, & Yoon, T. (2015). Shrug exercises combined with shoulder abduction improve scapular upward rotator activity and scapular alignment in subjects with scapular downward rotation impairment. *Journal of Electromyography and Kinesiology*, 25(2), 363-370. PMID: 25553964. DOI: [10.1016/j.jelekin.2014.12.001](https://doi.org/10.1016/j.jelekin.2014.12.001)
5. Yoon, T., Cynn, H., Choi, S., Choi, W., **Jeong, H.**, Lee, J., & Choi, B. (2015). Trunk muscle activation during different quadruped stabilization exercises in individuals with

- chronic low back pain. *Physiotherapy Research International*, 20(2), 126-132. PMID: 25475504. DOI: [10.1002/pri.1611](https://doi.org/10.1002/pri.1611)
4. **Jeong, H.**, Lee, J., Choi, W., & Cynn, H. (2014). Knee flexion angles influence hip extensor activity during prone heel squeeze. *Physical Therapy Korea*, 21(4), 15-22. DOI: [10.12674/ptk.2014.21.4.015](https://doi.org/10.12674/ptk.2014.21.4.015)
  3. Yoon, T., Park, K., Choi, S., Lee, J., **Jeong, H.**, & Cynn, H. (2014). A comparison of the reliability of the trochanteric prominence angle test and the alternative method in healthy subjects. *Manual Therapy*, 19(2), 97-101. PMID: 24035201. DOI: [10.1016/j.math.2013.07.011](https://doi.org/10.1016/j.math.2013.07.011)
  2. Choi, W., Lee, J., **Jeong, H.**, Yoon, T., & Cynn, H. (2014). Reliability of scapular downward rotation measurement in subjects with scapular downward rotation syndrome. *Physical Therapy Korea*, 21(3), 73-79. DOI: [10.12674/ptk.2014.21.3.073](https://doi.org/10.12674/ptk.2014.21.3.073)
  1. Lee, J., Cynn, H., Choi, S., Yoon, T., & **Jeong, H.** (2013). Effects of different hip rotations on gluteus medius and tensor fasciae latae muscle activity during isometric side-lying hip abduction. *Journal of Sport Rehabilitation*, 22(4), 301-307. PMID: 23921296. DOI: [10.1123/jsr.22.4.301](https://doi.org/10.1123/jsr.22.4.301)

#### INVITED LECTURESHIPS

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7. **Jeong, H.** “Lower extremity performance and biomechanics” as part of Jeong, H. & Russek L. Giving Hypermobile Children a Leg up on Lower Extremity Function: Physical Therapist Assessment and Treatment. APTA Combined Sections Meeting 2024. Boston, MA. Feb 15, 2024. (PD-17911: Education session, Live and On-demand)
6. **Jeong, H.** “Pain and gait performance in children with hypermobile Ehlers-Danlos syndrome and hypermobility spectrum disorder” as part of Jeong, H., Russek, L., & Herman-Hilker S. Understanding Flexible People: PT for Ehlers-Danlos Syndrome. Bleeding Disorder Conference 2023. National Harbor, MD. Aug 19, 2023. (Education session)
5. **Jeong, H.** “Pain and gait performance in children with hypermobile Ehlers-Danlos syndrome and hypermobility spectrum disorder” as part of Jeong, H., Russek, L., & Slavens, B. Children with Hypermobility Spectrum Disorder: Pathway to a Better Diagnosis & Treatment for Pain. APTA Combined Sections Meeting 2023. San Diego, CA. Feb 23, 2022. (PD-13910: Education session, Live and On-demand)
4. **Jeong, H.** Biomechanical Phenotyping of Children with Hypermobile Ehlers-Danlos Syndrome and Hypermobility Spectrum Disorder. Marquette University, Milwaukee, WI. Apr 29, 2022. (Department of Biomedical Engineering, Graduate Seminar Series)
3. **Jeong, H.** “Foot and Ankle Biomechanics and Heel Rise Performance” as part of Zellers, J. A., Hastings, M. K., Jeong, H., & Meyers, G. The Diabetic Foot Update: From Bench to Bedside. APTA Combined Sections Meeting 2022. San Antonio, TX. Mar 1 – 31, 2022. (OR-10508: Education session, On-demand)
2. **Jeong, H.** Heel rise task identifies midfoot function during walking in diabetes. International Foot and Ankle Biomechanics. Sao Paulo, Brazil. Apr 12, 2021. (Special Session)

1. **Jeong, H.** Foot Dysfunction in People with Diabetes Mellitus and Peripheral Neuropathy. Washington University in St. Louis, St. Louis, MO. Nov 19, 2019. (Program in Physical Therapy, Research Seminar)

## **CONFERENCE ABSTRACTS & PRESENTATIONS** \*presenter.

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### Platforms / Podium talks

29. **Jeong, H.\***, Zellers, J. A., Steiger-May, K., Commean, P., Kaszyk, E., Mueller, M. J., Hastings, M. K. Foot-Specific Intervention for Individuals with Diabetic Peripheral Neuropathy: A Randomized Control Trial with 3-Year Follow-up. APTA Combined Sections Meeting 2025. Houston, TX, Feb 13 – 15, 2025.
28. Johnson, J. E.\*, Phinney, A. R., Hastings, M. K., **Jeong, H.**, Chen, L., Thome, A. P., McCormick, J. J., Backus, J.D. What is the Gold Standard for Advanced Hallux Rigidus? Minimum 10-Year Follow-up Comparison of Interposition Arthroplasty and Arthrodesis Shows Similar Outcomes. *Roger A Mann Award Finalist 2024* - nominated for Best Clinical Paper. 2024 Annual Meeting of the American Orthopaedic Foot and Ankle Society. Vancouver, BC, September 11 – 14, 2024.
27. **Jeong, H.\***, Nguyen, A., Qashqai, A., Engel, J., Muriello, M., Basel, D., & Slavens, B. (2024) Impact of Gait Speed on Knee Power and Pain in Children with Hypermobility Spectrum Disorder. APTA Combined Sections Meeting 2024. Boston, MA, Feb 15 – 17, 2024. *Pediatric Physical Therapy* 36(1):p 119-125, January 2024. DOI: [10.1097/PEP.0000000000001084](https://doi.org/10.1097/PEP.0000000000001084)
26. Kaszyk, E.\*, Steger-May, K., **Jeong, H.**, Zellers, J., & Hastings, M. K. (2024) Bone Mineral Density Contributes to Longitudinal Changes in Diabetic Neuropathic Forefoot Deformity. APTA Combined Sections Meeting 2024. Boston, MA, Feb 15 – 17, 2024. *Journal of Orthopaedic & Sports Physical Therapy*, 2024;2(2):CSM1–CSM18. DOI: [10.2519/josptopen.2024.2.2.CSM1](https://doi.org/10.2519/josptopen.2024.2.2.CSM1)
25. Kaszyk, E.\*, Commean, P. K., Smith, G., **Jeong, H.**, York, A., Chen, L., Mueller, M. J., Zellers, J. A., & Hastings, M. K. (2023) Foot Intrinsic Muscle Deterioration in Individuals with Type 2 Diabetes Mellitus and Peripheral Neuropathy. APTA Combined Sections Meeting 2023. San Diego, CA, Feb 23 – 25, 2023. *Journal of Orthopaedic & Sports Physical Therapy*, 2023;53(2):CSM1–CSM27. DOI: [10.2519/jospt.2023.53.2.CSM1](https://doi.org/10.2519/jospt.2023.53.2.CSM1)
24. **Jeong, H.\***, Engel, J. M., Wilwert, O., Cho, C. C., Muriello, M., Basel, D., & Slavens, B. A. (2022) Pain attitudes and interference in children with hypermobility spectrum disorder and hypermobile Ehlers-Danlos syndrome. 2022 International Symposium on the Ehlers-Danlos Syndromes and Hypermobility Spectrum Disorders. Rome, Italy, September 14 – 17, 2022.
23. Qashqai, A. A., **Jeong, H.**, Schwartz, S. R., Muriello, M. J., Basel, D. G., & Slavens, B. A.\* (2022) Three-dimensional gait pattern in children: comparing typically developing and hypermobile Ehlers-Danlos syndrome. North American Congress of Biomechanics 2022. Ottawa, Canada, Aug 21 – 25, 2022.
22. **Jeong, H.\***, Qashqai, A. A., Muriello, M. J., Basel, D. G., & Slavens, B. A. (2022) Quantitative analysis of lower extremity joint coordination during gait in children with and without hypermobile Ehlers-Danlos syndrome. World Congress of Biomechanics. Taipei, Taiwan, July 10 – 14, 2022.
21. **Jeong, H.\***, Cha B., Zellers, J. A., Chen, L., & Hastings, M. K. (2022) Midfoot and Ankle Coupling during Heel Rise in People with and without Diabetes Mellitus. APTA Combined



- Sections Meeting 2022. San Antonio, TX, Feb 2 – 5, 2022.
20. **Jeong, H.\***, Mueller, M. J., Zellers, J. A., Yan Y., & Hastings, M. K. (2021) People with diabetes and peripheral neuropathy have limited ability to plantarflex their foot and ankle during heel rise tasks. *International Foot and Ankle Biomechanics*. Sao Paulo, Brazil, Apr 11 – 14, 2021.
  19. **Jeong, H.\***, Mueller, M. J., Stumpf, J. L., & Hastings, M. K. (2020) Role of Foot and Ankle Joint Mobility on Heel Rise Performance in People with Diabetes. APTA Combined Sections Meeting 2020. Denver, CO, Feb 12 – 15, 2020.
  18. **Jeong, H.\***, Mueller, M. J., & Hastings, M. K. (2019) Effects of Diabetes, Age, and Load on Foot and Ankle Kinematics during Heel Rise Task. *Movement Science Program Retreat, Program Physical Therapy*. St. Louis, MO, Apr 12, 2019.
  17. **Jeong, H.\***, Lee, J., Choi, W., Yoon, T., & Cynn, H. (2014) Comparisons of Muscle Activity and Center of Pressure Excursion during One-leg Standing between the Short-foot Exercise and Kinesiotaping in Subjects with Patellofemoral Pain and Pronated Foot. *Yonsei-Nagoya University Research Exchange Meetings*. Nagoya, Japan, Nov 2 – 4, 2014.
  16. **Jeong, H.\***, Lee, J., Choi, W., Yoon, T., & Cynn, H. (2014) Comparisons of Muscle Activity and Center of Pressure Excursion during One-leg Standing between the Short-foot Exercise and Kinesiotaping in Subjects with Patellofemoral Pain and Pronated Foot. *Korea-Japan 2nd Joint Conference for the Partnership between KPTA and JPTA*. Busan, South Korea, Nov 15 – 16, 2014.

#### Posters

15. **Jeong, H.\***, Cheuy, V. A., Kazakia, G. J., Sinacore D. R., Commean P. K., Yan Y. & Hastings, M. K. (2024) Chronic Kidney Disease and Foot Bone Quantity and Quality in People with Type 2 Diabetic Peripheral Neuropathy: A Case Series. *Musculoskeletal Research Center Symposium*, St. Louis, MO. May 15, 2024.
14. **Jeong, H.\***, Qashqai, A., Muriello, M., Basel, D., & Slavens, B. A. (2023) Lower Extremity Joint Coupling Variability during Gait in Children with Joint Hypermobility. *Korean – American Scientists and Engineers Association (KSEA) Scientists and Engineers Early Career Development (SEED) Workshop 2023*. Dallas, TX, August 1 – 2, 2023.
13. **Jeong, H.\***, Qashqai, A., Muriello, M., Basel, D., & Slavens, B. A. (2023) Lower Extremity Joint Coupling Variability during Gait in Children with Joint Hypermobility. *APTA Combined Sections Meeting 2023*. San Diego, CA, Feb 23 – 25, 2023. *Pediatric Physical Therapy*, 35(1):p 115-160, January 2023. DOI: [10.1097/PEP.0000000000000991](https://doi.org/10.1097/PEP.0000000000000991)
12. **Jeong, H.\*** & Hastings, M. K. (2023) Longitudinal Changes in Heel Rise Performance in Individuals with Diabetic Peripheral Neuropathy. *APTA Combined Sections Meeting 2023*. San Diego, CA, Feb 23 – 25, 2023. *Journal of Orthopaedic & Sports Physical Therapy*, 2023;53(2):CSM55–CSM146. DOI: 10.2519/jospt.2023.53.2.CSM55
11. **Jeong, H.\***, Qashqai, A. A., Engel, J. M., Muriello, M. J., Basel, D. G., & Slavens, B. A. (2022) Gait Variability is Related to Pain Interference in Adolescents with Hypermobility Spectrum Disorder. *American Congress of Rehabilitation Medicine 2022*. Chicago, IL, Nov 8 – 11, 2022. *Archives of Physical Medicine and Rehabilitation*, 103(12), e111. DOI: [10.1016/j.apmr.2022.08.726](https://doi.org/10.1016/j.apmr.2022.08.726)

10. Engel, J. M., **Jeong, H.**, Wilwert, O.\*, & Slavens, B. A. (2022) Pain interference in children with hypermobility spectrum disorder. 2022 Occupational Therapy Summit of Scholars. Madison, WI, June 16 – 18, 2022.
9. Bohnert, K. L., York, A., **Jeong, H.\***, Zellers, J. A., Chen, L., & Hastings, M. K. (2022) Blood Glucose Control Worsens and Sedentary Time is Stable Over 4 Years and Covid. APTA Combined Sections Meeting 2022. San Antonio, TX, Feb 2 – 5, 2022.
8. **Jeong, H.\***, Mueller, M. J., Zellers, J. A., & Hastings, M. K. (2020) Midfoot and ankle motion during heel rise and gait are related in people with diabetes. DRC Diabetes Day Symposium. St. Louis, MO, Nov 12, 2020.
7. Bernhardson, H. J.\*, **Jeong, H.**, Brogan, H. V., Stumpf, J. L., Ellis, M., & Hastings, M.K. (2020) Consistency of a Metatarsophalangeal Joint Movement Pattern across Functional Tasks in People with Diabetes Mellitus and Peripheral Neuropathy. APTA Combined Sections Meeting 2020. Denver, CO, Feb 12 – 15, 2020.
6. **Jeong, H.\***, Mueller, M. J., Zellers, J. A., Yan, Y., & Hastings, M. K. (2019) Heel Rise Foot Mechanics in People with Diabetes Mellitus and Peripheral Neuropathy. DRC Diabetes Day Symposium. St. Louis, MO, Nov 7, 2019.
5. **Jeong, H.\***, Mueller, M. J., & Hastings, M. K. (2019) Limited foot and ankle joint mobility does not play a role in heel rise performance in people with diabetes and peripheral neuropathy. 14th Research Training Symposium and Poster Session. St. Louis, MO, Oct 8, 2019.
4. Hastings, M. K.\*, Sorensen, C. J., **Jeong, H.**, Bohnert, K. L., Snozek, D., & Mueller, M. J. (2019) Systemic Musculoskeletal Effects of Diabetes: Relationships Between Lower and Upper Extremity Dysfunction. International Symposium on the Diabetic Foot. Hague, Netherlands, May 22 – 25, 2019.
3. **Jeong, H.\***, Mueller, M. J., & Hastings, M. K. (2019) Effects of Diabetes, Age, and Load on Foot and Ankle Kinematics during Heel Rise Task. Washington University in St. Louis 24th Graduate Research Symposium. St. Louis, MO, Mar 19, 2019.
2. **Jeong, H.\***, Mueller, M. J., & Hastings, M. K. (2018) Performance of Bilateral and Unilateral Heel Rise Task in People with Diabetes Mellitus and Peripheral Neuropathy. APTA Combined Sections Meeting 2018. New Orleans, LA, Feb 21 – 24, 2018. *Journal of Orthopaedic and Sports Physical Therapy*. 2018; 48(1):A131.
1. **Jeong, H.\***, Mueller, M. J., & Hastings, M. K. (2017) Performance of Bilateral and Unilateral Heel Rise Task in People with Diabetes Mellitus and Peripheral Neuropathy. Movement Science Program Retreat, Program Physical Therapy. St. Louis, MO, Apr 28, 2017.

## TEACHING EXPERIENCE

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### Washington University in St. Louis, Program of Physical Therapy, St. Louis, MO

Guest Lecturer, M4a module (Gait: Spatiotemporal and Kinematics)

Fall 2023

- Delivered a lecture in the DPT curriculum about gait spatiotemporal and kinematics.
- Instructed and supervised a laboratory class on assessing normal and pathological gait.
- Graded and provided constructive feedback from their lab reports to help students understand the characteristics of normal and pathological gait.

**Baekseok University, Department of Physical Therapy, Cheonan, South Korea**

Guest Lecturer, Introduction to Physical Therapy (Career Development) Spring 2022, 2023

- Delivered a lecture in the undergraduate PT curriculum about career development as a physical therapist and scientist in the U.S.

**Washington University in St. Louis, Program of Physical Therapy, St. Louis, MO**

Guest Lecturer, Focus Study – Foot and Ankle Spring 2020

- Delivered a lecture in the DPT curriculum about foot and ankle mechanics in people with diabetes mellitus and peripheral neuropathy.

Guest Lecturer, Kinesiology I – Introduction to Gait Analysis Fall 2018

- Developed a lecture to train DPT students about normal and pathological gait.
- Instructed and supervised a laboratory class on assessing normal and pathological gait.
- Graded and provided constructive feedback from their lab reports to help students understand the characteristics of normal and pathological gait.

Laboratory Assistant, Case Integration I Fall 2018, 2019

- Instructed groups of DPT students in screening peripheral neuropathy in people with diabetes.

Laboratory Assistant, Kinesiology I – Introduction to Gait Analysis Fall 2017, 2018, 2019

- Supervised the laboratory class on assessing normal and pathological gait.
- Graded and provided constructive feedback from their lab reports to help students understand the characteristics of normal and pathological gait.

**Sangji University, Department of Physical Therapy, Wonju, South Korea**

Employed as designated teaching/lab assistant for entire undergraduate PT curriculum.

Teaching Assistant, Introduction to Physical Therapy Spring 2016

- Delivered a lecture as a T.A. on educating medical terminology.
- Created, supervised, and graded weekly quiz, mid-term and final exams.

Teaching Assistant Spring 2016

- Responsible for grading and supervising quizzes, mid-terms, final exams for the following classes:
  - Applied Therapeutic Exercise & Practice, Diagnosis of Musculoskeletal and Neurological Disease, Health Statistics & Document Retrieval, Human Anatomy & Practice, Musculoskeletal Physical Therapy & Practice, Neuroanatomy & Practice, Neurological Physical Therapy & Practice, Pathology, Research Methodology & Evidence-based Physical Therapy

Teaching Assistant, Functional Anatomy & Practice Spring 2016

- Delivered a lecture as a T.A. on educating anatomical landmarks of the shoulder and elbow.
- Supervised laboratory class on palpating upper extremity and trunk muscles.
- Created, supervised, and graded weekly quiz, mid-term and final exams.

Teaching Assistant, Physical Agents in Physical Therapy & Practice Fall 2015

- Organized manual procedures for all the PT equipment (e.g., traction device, ultrasound, orthotics, exercise equipment, weights) and demonstrated use of device in class.
- Graded and supervised mid-term and final exams.

Teaching Assistant Fall 2015

- Responsible for grading and supervising quizzes, mid-terms, final exams for the following classes:

- Based Physical Examination Procedures & Practice, Basic Therapeutic Exercise & Practice, Cardiopulmonary Physical Therapy, Diagnosis and Treatment of Movement Impairment, Kinesiology, Musculoskeletal Anatomy, Orthopedic Physical Therapy & Practice, Pediatric Physical Therapy, Physiology & Practice, Sports Physical Therapy

**Yonsei University, Department of Physical Therapy, Wonju, South Korea**

Teaching Assistant, Functional Anatomy Spring 2015

- Graded and supervised mid-term and final exam.

Teaching Assistant, Applied Therapeutic Exercise & Practice Fall 2014

- Created multiple choice and essay questions, supervised and graded for mid-term and final exams.
- Supervised laboratory class of 50 PT students on physical diagnosis, evaluation, and treatment.

Teaching Assistant, Public Health Fall 2014

- Graded and supervised mid-term and finals exams.

Teaching Assistant, Biomechanics, Cardiopulmonary Physical Therapy & Practice Spring 2014

- Created essay questions, supervised and graded for mid-term and final exams.

Teaching Assistant

- Responsible for grading and supervising quizzes, mid-terms, final exams for the following classes:
  - Advanced Rehabilitation Medicine, Functional Rehabilitation Technics, Pharmacology, Rehabilitation Psychology (Spring 2014)

## **MENTORING & TRAINING EXPERIENCE**

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**Washington University in St. Louis, St. Louis, MO** 09/2023 – current

- Trained 1 research assistant and 2 work study students for data processing and management.
- Responsible for training and tracking task completion for the laboratory R01 project.

Mentor, Postdoctoral Peer Mentorship Program 10/2023 – current

- Mentored 2 first-year postdoctoral researchers in career development and living in St. Louis.

**Marquette University, Milwaukee, WI** 09/2021 – 08/2023

- Trained and managed work progress of 2 undergraduate students for data collection and processing.

**University of Wisconsin-Milwaukee, Milwaukee, WI** 09/2021 – 08/2023

- Served as a research mentor for 1 doctoral student and trained staff scientist for data collection and processing.

**Washington University in St. Louis, St. Louis, MO** 08/2016 – 08/2021

- Trained 7 research assistants/work study students and 2 undergraduate summer students for data processing and management.
- Responsible for training and tracking task completion for the laboratory R01 project.

Mentor, International Peer Mentoring Program 09/2017 – 01/2018

- Mentored 2 international students and provided consultation to address concerns living in the U.S.

**Yonsei University, Wonju, South Korea** 08/2014 – 08/2015

- Trained 3 junior master's students on reviewing scientific literature, developing research ideas, collecting and managing data, supervising statistics, and editing scientific writing.

Residential Advisor, Residential Colloquia 03/2012 – 04/2013

- Mentored 18 freshman students with different majors and provided consultation to address concerns about school life.

Teaching Assistant, Residential Colloquia 03/2010 – 06/2010

- Mentored 20 undergraduate PT students in searching for their future career.

## PROFESSIONAL DEVELOPMENT

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United States Bone and Joint Initiative Young Investigator Initiative (USBJI YII) 10/2022

- USBJI YII mentors: Howard Hillstrom, PhD, Anne-Marie Malfait, MD, PhD
- Attended 1st USBJI YII Workshop

The Clinical & Translational Science Institute (CTSI) of Southeast Wisconsin: Methods in Grant Preparation 01/2022 – 03/2022

- Completed 13-week virtual seminar in NIH grant preparation and writing.

MIT Institute for Data, System, and Society (IDSS) Certificate Program: Data Science and Machine Learning: Making Data-Driven Decisions 10/2022 – 01/2023

- Completed 12-week certificate program in data science and machine learning.

## PROFESSIONAL MEMBERSHIPS

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American Physical Therapy Association, Orthopaedic Section 10/2024 – current

American Physical Therapy Association, Research & Pediatric Sections 10/2021 – current

Gait and Clinical Movement Analysis Society 05/2022 – current

## PEER-REVIEWED JOURNAL REFEREE

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Applied Sciences; BMC Musculoskeletal Disorders; BMJ Primary Care; Clinics and Practice; Gait & Posture; Global Pediatric Health; Healthcare; International Journal of Environmental Research and Public Health; Journal of Clinical Medicine; Journal of Multidisciplinary Healthcare; Journal of Pain Research; PLOS ONE; PTJ Physical Therapy & Rehabilitation Journal; Scientific Reports.

## SERVICES

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Postdoctoral Peer Mentor, Washington University in St. Louis 10/2023 – 03/2025

Postdoc Parents-Advisory Committee, Washington University in St. Louis 12/2023 – 12/2024

REDCap Best Practices Committee, Washington University in St. Louis 11/2023 – 07/2024

Co-coordinator, Biomechanics Day, Washington University in St. Louis 01/2024 – 04/2024

Volunteer, Greater St. Louis Honor Flight 03/2023, 04/2024

Reviewer, APTA Academy of Physical Therapy Research 07/2022, 07/2023

Volunteer, APTA Combined Sections Meeting Research Booth 02/2023

Presenter, Change & Action for Racial Equity (C.A.R.E) Group Meeting	02/2022
Member, One Race, Change & Action for Racial Equity in St. Louis	06/2021 – 11/2021
Organizer, Movement Science PhD Monthly Meetings	01/2019 – 10/2020
Volunteer, Meals on Wheels	02/2020
Co-coordinator, Biomechanics Day, Washington University in St. Louis	04/2018, 04/2019
Co-organizer, Korean Graduate Student Association Meetings	01/2019 – 06/2019
Graduate student senator, Washington University in St. Louis	09/2017 – 05/2018
Volunteer, International Taekwondo Championships, KPTA	07/2015
Organizer, Mentoring Program, Yonsei University	03/2012 – 12/2013
Volunteer, Physical Therapy Support for Underserved Population	03/2009 – 07/2012

## **PROGRAMMING, SOFTWARE & HARDWARE SKILLS**

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### Statistical and Mathematical Software

- Statistics Package R
- MATLAB (The MathWorks, Inc., U.S.A.)
- SPSS Statistics (SPSS Inc., U.S.A.)

### Lab Equipment

- Computed Tomography
  - Analyze (AnalyzeDirect, U.S.A.)
- 3D Motion analysis system
  - VICON MX System [Vicon Nexus software] (Oxford Metrics, Ltd., England)
  - Visual3D Motion Analysis software (C-Motion, Inc., Rockville, MD, U.S.A)
- EMG measurement system
  - Telemyo DTS system [Myoresearch software] (Noraxon, Inc., U.S.A.)
  - Telemyo 2004T G2 system [Myoresearch software] (Noraxon, Inc., U.S.A.)
- Plantar pressure
  - F-scan (Tekscan Inc., MA, U.S.A.)
  - Pressure sensing mat (Tekscan Inc., MA, U.S.A.)
- Ultrasonography
  - Sono Ace X8 (Samsung Medison Co., South Korea)
- BTE
  - PrimusRS (BTE Technologies, Hanover, MD)

## **LANGUAGE SKILLS**

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- Korean (native)
- English (fluent)
- Chinese (basic, 1 year of language training in Beijing)