Majid Jadidi, Ph.D.

Assistant Professor, Department of Biomechanics, University of Nebraska-Omaha

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Education

- **Ph.D. in Mechanical Engineering - specialized in biomedical engineering** — Aug 2016 - Dec 2020
  University of Nebraska-Lincoln — *Lincoln, NE*
  Minor in Business Adminstration
  Dissertation: Biomechanics of Elastic and Muscular Arteries in the Context of Aging

- **B.Sc. in Mechanical Engineering** — Aug 2011 - July 2016
  Isfahan University of Technology — *Isfahan, Iran*
  Double Major with Industrial Engineering and Systems Management

Professional Experience

- **Assistant Professor** — Jan 2021 { Present
  Department of Biomechanics, University of Nebraska-Omaha — *Omaha, NE*

- **Graduate Research Assistant** — Dec 2016 { Dec 2020
  Department of Surgery, University of Nebraska-Medical Center — *Omaha, NE*

- **Graduate Teaching Assistant** — Aug 2016 { May 2017
  Department of Mechanical Engineering, University of Nebraska-Lincoln — *Lincoln, NE*

Teaching Experience

- **BMCH 4690/8696: Cardiovascular Biomechanics** — Fall 2023
  Average Evaluations: 5/5

- **BMCH 4690/8696: Cardiovascular Biomechanics** — Fall 2022
  Average Evaluations: 4.5/5

- **BMCH 3000: Biomechanical Statics & Dynamics** — Fall 2021
  Average Evaluations: NA

Publications

- Kazim, M., Razian, S., Zamani, E., Varandani, D., Shahbad, R., Jadidi, M.* (2024). Mechanical, Structural, and Morphological Di erences in the Iliac Arteries, Journal of the Mechanical Behavior of Biomedical Materials (IF 3.9), In press
- Razian, S., Jadidi, M.* (2024). An Optimized Di erential Evolution Algorithm for Constitutive Model Fitting of Arteries, Acta Mechanica (IF 2.7), In press
- Kazim, M., Razian, S., Zamani, E., Varandani, D., Shahbad, R., Desyatova, R., Jadidi, M.*

- Kamenskiy, A., Jadidi, M., Desyatova, A., MacTaggart, J., (2022). Biomechanics of the main artery in the lower limb. Solid (Bio) mechanics: Challenges of the Next Decade, Springer, 157-179
- Jadidi, M., Poulson, W., Aylward, P., MacTaggart, J., Sanderfer, C., Marmie, B., Pipinos, M., Kamenskiy, A., (2021). Calci cation prevalence in di erent vascular zones and its association with demographics, risk factors, and morphometry, American Journal of Physiology-Heart and Circulatory Physiology (IF 4.733), 320.6, H2313-H2323
- Maleckis, K., Keiser, C., Jadidi, M., Anttila, E., Desyatova, A., MacTaggart, J., Kamenskiy, A., (2021). Safe balloon in ation parameters for resuscitative endovascular balloon occlusion of the aorta, Journal of Trauma and Acute Care Surgery (IF 3.697), 91, 2, 302-309
- Jadidi, M., Razian, S., Anttila, E., Doan, T., Adamson, J., Pipinos, M., Kamenskiy, A., (2021). Comparison of morphometric, structural, mechanical, and physiologic characteristics of human super cial femoral and popliteal arteries, Acta Biomaterialia (IF 10.633), 121, 431-443
- Jadidi, M., Sherifova, S., Sommer, G., Kamenskiy, A., Holzapfel, G., (2021). Constitutive modeling using structural information on collagen ber direction and dispersion in human super cial femoral artery specimens of di erent ages, Acta Biomaterialia (IF 10.633), 121, 461-474
- Jadidi, M., Razian, S., Habibnezhad, M., Anttila, E., Kamenskiy, A., (2021). Mechanical, structural, and physiologic di erences in human elastic and muscular arteries of di erent ages: comparison of the descending thoracic aorta to the super cial femoral artery, Acta Biomaterialia (IF 10.633), 119, 268-283
- Jadidi, M., Habibnezhad, M., Anttila, E., Maleckis, K., Desyatova, A., MacTaggart, J., Kamenskiy, A. (2020). Mechanical and Structural Changes in Human Thoracic Aortas with Age. Acta Biomaterialia (IF 10.633), 103, 172-188
- Jadidi, M., Desyatova, A., MacTaggart, J., Kamenskiy, A., (2019). Mechanical stresses associated with attening of human femoropopliteal artery specimens during planar biaxial testing and their e ects on the calculated physiologic stress{stretch state. Biomechanics and modeling in mechanobiology (IF 3.62), 18(6), 1591-1605

* Corresponding author = Equal contribution

For a full list of my publications, please see my Google Scholar pro le: Google Scholar - Majid Jadidi.

Invited Talks

- Adult-to-Pediatric Translation in Cardiovascular Biomechanics, Child Health Research Institute Pediatric Heart & Vascular Diseases Mini Research Summit, Jan 2024
- Translating Adult Vascular Biomechanics to Pediatric Applications, Child Health Research Institute Seminar Series, Oct 2023
- Biomechanics of Human Arterie in the Context of Aging, UNO Biomechanics Seminar Series, Sep 2021

Conference Presentations

- Zolfaghari Sichani, A., Razian, S., & Jadidi, M.*. E ects Of The Loading Rate On The Mechanical Behavior Of Proximal Super cial Femoral Artery. Summer Biomechanics, Bioengineering, and Biotransport Conference. June 2024. Accepted for Oral presentation
- Razian, S., Jadidi, M., Kamenskiy, A. Di erential E ects Of Hypertension On The Morphological, Mechanical, And Physiologic Characteristics Of Male And Female Human Femoropopliteal Arteries. Summer Biomechanics, Bioengineering, and Biotransport Conference. June 2024. Accepted for Oral presentation
- Jadidi, M.*, Razian, S., & Kamenskiy, A. A Machine Learning Approach To Prediction Of Patient-Speci c Arterial Wall Mechanical Properties. 19th International Symposium on Computer Methods in Biomechanics and Biomedical Engineering. July 2024. Accepted for Oral presentation
- Zolfaghari Sichani, A., Razian, S., & Jadidi, M.*. Viscoelasticity Of The Human Super cial Femoral Artery: A Study On Loading Rate Dependency. 5th Great Plains Biomechanics Conference. May 2024. Accepted for Oral presentation
- Jadidi, M.*, Razian, S., & Kamenskiy, A. Machine Learning Prediction Of Patient-Speci c Non-Linear Orthotropic Mechanical Properties Of Human Femoropopliteal Arteries. 9th International Conference on Mechanics of Biomaterials and Tissues. Dec 2023. Oral presentation
- Razian, S., Jadidi, M., & Kamenskiy, A. Sex Di erences In Morphological, Mechanical, And Physiological Characteristics Of Human Femoropopliteal Arteries. 9th International Conference on Mechanics of Biomaterials and Tissues. Dec 2023. Oral presentation