

Department of Orthopaedics Publications

Foot and Ankle

Fuse Y, Fanning JE, Boyd T, Singhal M, Bohnen J, **Raduan F**, Singhal D. The Kager Triangle: An Anatomic Review and Potential Implications for Lymphatic Surgery. *Plast Reconstr Surg Glob Open*. 2025 May 5;13(5):e6791. doi: 10.1097/GOX.00000000000006791. PMID: 40330170; PMCID: PMC12052238.

Jalili PF, Miller CP, **Dowlathshahi AS**. Enhancing Ankle Arthrodesis in Complex Cases: The Role of the Vascularized Fibula Flap. *Ann Plast Surg*. 2025 Apr 1;94(4S Suppl 2):S150-S154. doi: 10.1097/SAP.00000000000004263. PMID: 40167063.

Hand Surgery

Watkins IT, Duggan JL, Lechtig A, Bauder A, He L, Ilchuk A, Doodlesack A, **Harper C, Rozental TD**. Orthopaedic Surgery Didactic Session Improves Confidence in Distal Radius Fracture Management by Emergency Medicine Residents. *J Educ Teach Emerg Med*. 2025 Apr 30;10(2):SG1-SG9. doi: 10.21980/J8K365. PMID: 40336695; PMCID: PMC12054089.

Musculoskeletal Research

Emerzian SR, Hanlon J, Behzad R, Unal M, Brooks DJ, Wu IH, Gauthier J, Jangolla S, Yu MG, Shah HS, King GL, **Johannesdottir F**, Karim L, Yu EW, Bouxsein ML. Effect of type 1 and type 2 diabetes on human femoral trabecular bone composition, microarchitecture, and mechanical behavior. *Bone*. 2025 Jul 14:117588. doi: 10.1016/j.bone.2025.117588. Epub ahead of print. PMID: 40669589.

Praveen AD, Jha D, Baker A, Fleps I, Björnsson P, Ellingsen LM, Aspelund T, Sigurdsson S, Gudnason V, Pálsson H, Matchar D, **Johannesdottir F**, Ferguson SJ, Helgason B. Comparison of the time-dependent discriminatory accuracy of femoral strength and bone mineral density for predicting future hip and major osteoporotic fractures: a 16-year follow-up of the AGES-Reykjavik cohort. *Osteoporos Int*. 2025 Jul;36(7):1175-1184. doi: 10.1007/s00198-025-07503-3. Epub 2025 May 12. PMID: 40353869; PMCID: PMC12208951.

Johannesdottir F, Bouxsein ML. Beyond BMD and FRAX: Potential for improving hip fracture prediction with bone microstructure measures. *J Bone Miner Res*. 2025 May 9:zjaf067. doi: 10.1093/jbmr/zjaf067. Epub ahead of print. PMID: 40341946.

Wang JS, Strauss K, Houghton C, Islam N, Yoon SH, Kobayashi T, Brooks DJ, **Bouxsein ML**, Zhao Y, Yee CS, Alliston TN, Wein MN. Osteoclast-independent osteocyte dendrite defects in mice bearing the osteogenesis imperfecta-causing Sp7 R342C mutation. *Bone Res*. 2025 Jul 19;13(1):70. doi: 10.1038/s41413-025-00440-1. PMID: 40683889; PMCID: PMC12276330.

Thuere KL, Mantz L, Sultana S, Henderson LM, Sakoda LC, Kazerooni E, San José Estépar R, Bouxsein ML, Fintelmann FJ. Opportunistic Screening on Chest CT, From the *AJR* Special Series on Screening. *AJR Am J Roentgenol*. 2025 Jul 16. doi: 10.2214/AJR.25.33069. Epub ahead of print. PMID: 40668630.

Department of Orthopaedics Publications

Musculoskeletal Research

Gaudette LW, Ackerman KE, **Bouxsein ML**, Bruneau MM, de Souza Junior JR, Garrahan M, Gehman S, Hughes JM, Outerleys J, Willy RW, Davis IS, Popp KL, Tenforde AS. Biomechanics associated with bone stress injury in athletes differ by proximal and distal anatomical locations: a cross-sectional analysis. *BMJ Open Sport Exerc Med*. 2025 Jun 30;11(2):e002469. doi: 10.1136/bmjsem-2025-002469. PMID: 40599165; PMCID: PMC12211831.

Foulis SA, Proctor SP, Spiering BA, Walker LA, Guerriere Aaron K, Castellani CM, Hussian IM, Heaton KJ, **Bouxsein ML**, Gaffney-Stomberg E, Fraley AL, Popp KL, Davis IS, Staab JS, Staab JE, Judkins JL, Merkle SL, Ritland BM, Matheny RW Jr, Hauret KG, Canham-Chervak M, McClung JP, Jones BH, Friedl KE, Hughes JM, Taylor KM; ARIEM Reduction in Musculoskeletal Injury (ARMI) Study Team. Model for Musculoskeletal Injury Risk Factors Among US Army Basic Combat Trainees. *JAMA Netw Open*. 2025 Jun 2;8(6):e2513177. doi: 10.1001/jamanetworkopen.2025.13177. PMID: 40455447; PMCID: PMC12131099.

Höppner J, Noda H, Anitha AK, Cheloha RW, Dean T, Bruce M, Brooks DJ, Mannstadt M, **Bouxsein ML**, Gellman SH, Khatri A, Jüppner H, Gardella TJ. Prolonging parathyroid hormone analog action in vitro and in vivo through peptide lipidation. *Nat Commun*. 2025 May 14;16(1):4487. doi: 10.1038/s41467-025-59665-7. PMID: 40368898; PMCID: PMC12078793.

Taseh A, Sasanfar S, Chan M, Sirls E, **Nazarian A**, Batmanghelich K, Bean JF, Ashkani-Esfahani S. Performance of Natural Language Processing versus International Classification of Diseases Codes in Building Registries for Patients With Fall Injury: Retrospective Analysis. *JMIR Med Inform*. 2025 Jul 14;13:e66973. doi: 10.2196/66973. PMID: 40658984; PMCID: PMC12279314.

Mancini L, Carnevale A, Mancuso M, Cerasa A, Pioggia G, **Nazarian A**, Schena E, Papalia R, Longo UG. Stereophotogrammetry for 3-Dimensional Kinematic Analysis in Rotator Cuff Tears: An Experimental Study Assessing Correlation with Clinical Scores. *Orthop J Sports Med*. 2025 Jul 11;13(7):23259671251332964. doi: 10.1177/23259671251332964. PMID: 40656650; PMCID: PMC12254656.

Razavi AH, Hemmati M, Nafisi N, Mirahmadi A, Laiwala S, Keko M, Vaziri A, **Rodriguez EK, Nazarian A**. Mechanobiology-guided machine learning models for predicting long bone fracture healing across diverse scenarios. *Comput Biol Med*. 2025 Jul 7;196(Pt A):110683. doi: 10.1016/j.compbimed.2025.110683. Epub ahead of print. PMID: 40628164.

Kassey VB, Walle M, Yeritsyan D, Kassey DV, Wu Y, Snyder BD, **Rodriguez EK, Ackerman JL, Nazarian A**. Using solid-state MRI and a double-tuned RF coil to quantify bone matrix and mineral densities in rat bones. *J Magn Reson*. 2025 Jun 20;378:107925. doi: 10.1016/j.jmr.2025.107925. Epub ahead of print. PMID: 40578137.

Department of Orthopaedics Publications

Musculoskeletal Research

Afshar A, Tabrizi A, Shariyate MJ, **Nazarian A**. Accessory flexor pollicis longus tendon - a clinical and cadaveric study. J Hand Surg Eur Vol. 2025 Jun 12;17531934251347077. doi: 10.1177/17531934251347077. Epub ahead of print. PMID: 40501356.

Nguyen A, Lee P, **Rodriguez EK**, Chahal K, **Freedman BR**, **Nazarian A**. Addressing the growing burden of musculoskeletal diseases in the ageing US population: challenges and innovations. Lancet Healthy Longev. 2025 May;6(5):100707. doi: 10.1016/j.lanhl.2025.100707. Epub 2025 May 14. PMID: 40381641.

Nazarian A. Ara Nazarian on musculoskeletal diseases in the USA. Lancet Healthy Longevity podcast. 2025 June. [Multimedia](#) | [Podcasts](#) | [In conversation with](#) | [The Lancet Healthy Longevity](#)

Longo UG, Lalli A, Nicodemi G, Pisani MG, De Sire A, D'Hooghe P, **Nazarian A**, Oeding JF, Zsidai B, Samuelsson K. Artificial intelligence demonstrates potential to enhance orthopaedic imaging across multiple modalities: A systematic review. J Exp Orthop. 2025 May 7;12(2):e70259. doi: 10.1002/jeo2.70259. PMID: 40337671; PMCID: PMC12056712.

Stewart I, Garcia MJ, Alluri N, Buzo M, Keko M, **Nazarian A**. A Meta-Analysis Study to Define Variations in Murine Long Bone Biomechanical Testing. J Biomech Eng. 2025 Jun 1;147(6):060801. doi: 10.1115/1.4068318. PMID: 40172045.

Hedayatzadeh Razavi A, Nafisi N, Velasquez-Hammerle M, Shariyate MJ, Khak M, Mirahmadi A, McNichol M, **Rodriguez EK**, **Nazarian A**. Advances in computational modeling of cytokine and growth factor dynamics in bone healing: a scoping review. Biomech Model Mechanobiol. 2025 Jun;24(3):761-778. doi: 10.1007/s10237-025-01938-7. Epub 2025 Mar 14. PMID: 40085288.

Department of Orthopaedics

Publications

Trauma Surgery

Liu C, Gregg AT, Moyer SC, Fischer A, Akodu M, **Appleton P, Rodriguez EK, Wixted J**. Utility of Sonication for Fracture-Related Infection. J Orthop Trauma. 2025 Apr 28. doi: 10.1097/BOT.0000000000003006. Epub ahead of print. PMID: 40293265.

Spine

Mohanty S, von Riegen H, Akodu M, Oginni E, Yeritsyan D, Momenzadeh K, Fladger A, Keko M, McTague M, **Nazarian A, Pittman JL, Gandhi SD**. Timing of Chemical Anticoagulant Administration in Spine Trauma and its Impact on VTE, Bleeding, and Mortality: A Systematic Review and Meta-Analysis. Global Spine J. 2025 Jul 6:21925682251353138. doi: 10.1177/21925682251353138. Epub ahead of print. PMID: 40619341; PMCID: PMC12234524.

Ahorukomeye P, Gwiazdon M, Liu D, Stephenson K, **Pittman J, Gandhi SD**. Salmonella Surgical Site Infection After Cervical Spine Surgery: A Case Report. JBJS Case Connect. 2025 Apr 9;15(2). doi: 10.2106/JBJS.CC.24.00528. PMID: 40203130.

Gandhi S, Amakiri IC, **Pittman J**, White A. Perioperative Nutritional Optimization in Spine Surgery. J Am Acad Orthop Surg. 2025 Mar 28. doi: 10.5435/JAAOS-D-24-01101. Epub ahead of print. PMID: 40173343.

Basques BA, **Gandhi SD**, Rudisill SS, Perez-Albela A, Phillips FM. Degenerative disc disease and isthmic spondylolisthesis have similar outcomes after L5-S1 anterior lumbar interbody fusion. J Clin Neurosci. 2025 Jun;136:111207. doi: 10.1016/j.jocn.2025.111207. Epub 2025 Mar 28. PMID: 40156989.

Orthopedic Oncology

Anderson ME. CORR Insights®: Should We Stop Assessing Intraoperative Frozen Section Marrow Margins During Ewing Sarcoma Resection? Clin Orthop Relat Res. 2025 May 2. doi: 10.1097/CORR.0000000000003534. Epub ahead of print. PMID: 40314315.

Doyle P, Caplan S, Klinger N, Shin KY, Groff M, Dillon-Martin M, Johnson T, Kang H, Perkins T, Novack C, Spektor A, Huynh MA, Kim E, Tanguturi S, Richards C, Xu WV, Kozono D, **Alkalay R**, Hackney D, Balboni T. Spinal Instability Neoplastic Score as a Predictor of Vertebral Fracture in Patients Undergoing Radiation Therapy for Spinal Metastases: A Single-Institution Study. Adv Radiat Oncol. 2025 May 9;10(7):101803. doi: 10.1016/j.adro.2025.101803. PMID: 40548161; PMCID: PMC12180991.

Ortho-Plastic Surgery

Hilbig-Vlatten L, Grauberger JN, Engmann TF, Stadelmeier LF, Dunn RM, Mandeville R, Ko JH, D'Hemecourt P, **Dowlathshahi S**. Soleal Sling Syndrome: A Narrative Review. J Peripher Nerv Syst. 2025 Jun;30(2):e70032. doi: 10.1111/jns.70032. PMID: 40391847.