



Kenneth Weber, DC, PhD

Assistant Professor (Research) of Anesthesiology, Perioperative and Pain Medicine (Adult Pain) and, by courtesy, of Neurosurgery (Adult Neurosurgery) and of Radiology (Neuroimaging and Neurointervention)

 Curriculum Vitae available Online

Bio

BIO

Dr. Weber directs the Neuromuscular Insight Lab. Dr. Weber's research seeks to develop quantitative markers of sensory and motor function, including pain, using machine-learning and advanced brain, spinal cord, and musculoskeletal magnetic resonance imaging. Dr. Weber aims to use these techniques to better understand the neuropathology of neurological and musculoskeletal conditions and discover more effective treatments and preventative strategies.

ACADEMIC APPOINTMENTS

- Assistant Professor (Research), Anesthesiology, Perioperative and Pain Medicine
- Assistant Professor (Research) (By courtesy), Neurosurgery
- Assistant Professor (Research) (By courtesy), Radiology
- Member, Bio-X
- Member, Wu Tsai Human Performance Alliance
- Member, Wu Tsai Neurosciences Institute

HONORS AND AWARDS

- Dermatomal Mapping with Spinal Cord Functional Magnetic Resonance Imaging (R01NS133305), National Institute of Neurological Disorders and Stroke (2023-2028)
- Neuromuscular Signatures to Predict Surgical Response in Cervical Myelopathy (R01NS128478), National Institute of Neurological Disorders and Stroke (2023-2028)
- NIH Clinical Research Extramural Loan Repayment Program Award (L30NS108301), National Institute of Neurological Disorders and Stroke (2022 - 2024)
- George B. McClelland Researcher of the Year Award, American Chiropractic Association (2021)
- Mentored Patient-Oriented Research Career Development Award (K23NS104211), National Institute of Neurological Disorders and Stroke (2018 - 2023)
- NIH Clinical Research Extramural Loan Repayment Program Award (L30NS108301), National Institute of Neurological Disorders and Stroke (2020 - 2022)
- MRI and Machine Learning to Improve Early Prognosis and Clinical Management after SCI (R03HD094577), Eunice Kennedy Shriver National Institute of Child Health and Human Development (2019 - 2021)
- NIH Clinical Research Extramural Loan Repayment Program Award (L30NS108301), National Institute of Neurological Disorders and Stroke (2018 - 2020)
- Ruth L. Kirschstein National Research Service Award Individual Fellowship (F32AT007800), National Center for Complementary and Integrative Health (2012 - 2015)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Staff Chiropractor, Palo Alto Veterans Affairs Health Care System (2024 - present)
- Senior Fellow, Chiropractic Academy for Research Leadership (2024 - present)
- Fellow, Chiropractic Academy for Research Leadership (2020 - 2024)
- Co-Section Editor — Psychology, Psychiatry & Brain Neuroscience, Pain Medicine (2022 - present)
- Associate Editor, Pain Medicine (2020 - 2022)
- Ambassador, NIH Loan Repayment Program (2019 - present)

PROFESSIONAL EDUCATION

- Postdoctoral Fellowship, Stanford University , Clinical Pain Research (2018)
- PhD, Northwestern University , Neuroscience (2016)
- DC, Palmer College of Chiropractic , Chiropractic (2009)
- BS, Saginaw Valley State University , Biology (2006)

LINKS

- Neuromuscular Insight Lab: <https://nilab.stanford.edu/>
- ResearchGate: https://www.researchgate.net/profile/Kenneth_Weber3?ev=hdr_xprf&_sg=WBSdkzqg2tU3b8aRV6txaxZ0vzzYYvjBlifgFZPcehhqqGU4pbZTTRkXkrrU2IZG
- Google Scholar: <https://scholar.google.com/citations?hl=en&user=oaG0LekAAAAJ>
- LinkedIn: <https://www.linkedin.com/in/kennethaweberii>
- GitHub: <https://github.com/kennethaweberii/>
- sourceforge: <https://sourceforge.net/u/kennethaweberii/profile/>

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Denna Dashti, Joel Fundaun

Publications

PUBLICATIONS

- **Mapping hand function with simultaneous brain-spinal cord functional MRI.** *Imaging neuroscience (Cambridge, Mass.)*
Oliva, V., Bédard, S., Kaptan, M., Pfyffer, D., Chy, B., Aufrichtig, S., Berhe, N., Chaudhari, A. S., Tharin, S., Hu, S. S., Ratliff, J., Smith, Z. A., Smith, et al
2025; 3
- **Leg Muscle Volume, Intramuscular Fat and Force Generation: Insights From a Computer-Vision Model and Fat-Water MRI.** *Journal of cachexia, sarcopenia and muscle*
Smith, A. C., Laguna, J. M., Wesselink, E. O., Scott, Z. E., Jenkins, H., Thornton, W. A., Wasielewski, M., Connor, J., Delp, S., Chaudhari, A. S., Parrish, T. B., Mackey, S., Elliott, et al
2025; 16 (1): e13735
- **Three-dimensional spatial distribution of lumbar paraspinal intramuscular fat revealed by spatial parametric mapping.** *European spine journal : official publication of the European Spine Society, the European Spinal Deformity Society, and the European Section of the Cervical Spine Research Society*
Weber, K. A., Wesselink, E. O., Gutierrez, J., Law, C. S., Mackey, S., Ratliff, J., Hu, S., Chaudhari, A. S., Pool-Goudzwaard, A., Coppieters, M. W., Elliott, J. M., Hancock, M., De Leener, et al

2024

- **MuscleMap: An Open-Source, Community-Supported Consortium for Whole-Body Quantitative MRI of Muscle.** *Journal of imaging*
McKay, M. J., Weber, K. A., Wesselink, E. O., Smith, Z. A., Abbott, R., Anderson, D. B., Ashton-James, C. E., Atyeo, J., Beach, A. J., Burns, J., Clarke, S., Collins, N. J., Coppieters, et al
2024; 10 (11)
- **Investigating the Associations between Lumbar Paraspinal Muscle Health and Age, BMI, Sex, Physical Activity and Back Pain using an Automated Computer-Vision Model: A UK Biobank Study.** *The spine journal : official journal of the North American Spine Society*
Wesselink, E. O., Pool-Goudzwaard, A., De Leener, B., Law, C., Fenyo, M. B., Ello, G. M., Coppieters, M. W., Elliott, J. M., Mackey, S., Weber, K. A.
2024
- **A single dermatome clinical prediction rule for independent walking one year after spinal cord injury.** *Archives of physical medicine and rehabilitation*
Smith, A. C., Draganich, C., Thornton, W. A., Berliner, J. C., Lennarson, P. J., Rejc, E., Sevigny, M., Charlifue, S., Tefertiller, C., Weber, K. A.
2023
- **Lateral corticospinal tract and dorsal column damage: predictive relationships with motor and sensory scores at discharge from acute rehabilitation after spinal cord injury.** *Archives of physical medicine and rehabilitation*
Smith, A. C., O'Dell, D. R., Albin, S. R., Berliner, J. C., Dungan, D., Robinson, E., Elliott, J. M., Carballido-Gamio, J., Stevens-Lapsley, J., Weber, K. A.
2021
- **Lateralization of cervical spinal cord activity during an isometric upper extremity motor task with functional magnetic resonance imaging.** *NeuroImage*
Weber, K. A., Chen, Y., Wang, X., Kahnt, T., Parrish, T. B.
2016; 125: 233-243
- **Multisite Spinal Cord and Canal Morphometry Reveals Age-Linked and Sex-Linked Structural Vulnerability in Degenerative Cervical Myelopathy Outcomes.** *Neurosurgery*
Smith, Z. A., Haynes, G., Bedard, S., Hameed, S., Khan, A. F., Dastgir, A., Baha, A., Kumar, S. G., Van Hal, M., Al Tamimi, M., Hu, S. S., Dhafer, Y., Shakir, et al
2026
- **Effects of aquatic therapy vs. standard care on gluteal muscle morphology and function in individuals with chronic low back pain: a randomized controlled trial.** *BMC sports science, medicine & rehabilitation*
Montpetit, C., Vaillancourt, N., Rosenstein, B., Wesselink, E. O., Dover, G., Weiss, C., Papula, L. A., Melek, A., Weber, K. A., Elliott, J. M., Fortin, M.
2026
- **Presence of midsagittal tissue bridges and walking ability 1-year post spinal cord injury.** *The journal of spinal cord medicine*
Thornton, W. A., Tefertiller, C., Weber li, K. A., Mañago, M., Wiley, L., Connor, J., Stevens-Lapsley, J., Pfyffer, D., Smith, A. C.
2026: 1-9
- **Muscle Composition as a Novel Prognostic Tool for Pain, Frailty, and Sarcopenia.** *Clinics in geriatric medicine*
Masnoon, N., Cornwall, J., Elliott, J. M., Glare, P., Hilmer, S. N., McKay, M., Walton, D. M., Weber, K., Wesselink, E.
2026; 42 (1): 61-73
- **Monitoring morphometric drift in lifelong learning segmentation of the spinal cord.** *Imaging neuroscience (Cambridge, Mass.)*
Naga Karthik, E., Bédard, S., Valošek, J., Aigner, C. S., Bannier, E., Bednařík, J., Callot, V., Combes, A., Curt, A., David, G., Eippert, F., Farner, L., Fehlings, et al
2026; 4
- **Higher lumbodorsal epimuscular fat associated with recurrent low back pain: an exploratory secondary analysis of cross-sectional MRI data with 1-year follow-up.** *European spine journal : official publication of the European Spine Society, the European Spinal Deformity Society, and the European Section of the Cervical Spine Research Society*
van Amstel, R. N., Wesselink, E. O., Weide, G., Hooijmans, M. T., Elliott, J. M., Weber li, K. A., Hancock, M. J., Jaspers, R. T., Pool-Goudzwaard, A. L.
2026
- **The relation between bulk (external) and internal measures of spinal stiffness.** *Chiropractic & manual therapies*
Nim, C., Weber li, K. A., O'Neill, S., Paulsen, R. T., Culmsee-Holm, L., Wesselink, E. O., Sun, Y. L., Jun, P., Breen, A., Kawchuk, G. N.
2025; 33 (1): 52

- **A Magnetic Resonance Imaging (MRI) Investigation of Cervical Spine Muscle Characteristics After Concussion: Identifying Return-to-Play Clearance and Subsequent Injury Prognosis.** *Journal of child neurology*
Smulligan, K. L., Smith, A. C., Weber, K. A., Carry, P., Esopenko, C., Baugh, C. M., Elliott, J., Snodgrass, S., Wesselink, E. O., Wilson, J. C., Howell, D. R.
2025: 8830738251392519
- **Automated Segmentation of Forearm Muscles: Clinical Associations With Hand Function, Muscle Volume and Intramuscular Fat.** *JCSM communications*
Fundaun, J., Oliva, V., Bédard, S., Wesselink, E. O., Lynn, B. P., Pai S, A., Pfyffer, D., Kaptan, M., Berhe, N., Ratliff, J., Hu, S. S., Smith, Z. A., Hastie, et al
2025; 8 (2): e70015
- **Magnetization transfer MRI (MT-MRI) detects white matter damage beyond the primary site of compression in degenerative cervical myelopathy using a novel semi-automated analysis.** *Computers in biology and medicine*
Muhammad, F., Weber II, K. A., Haynes, G., Villeneuve, L., Smith, L., Baha, A., Hameed, S., Khan, A. F., Dhaher, Y., Parrish, T., Rohan, M., Smith, Z. A.
2025; 197 (Pt B): 111083
- **EPISeg: Automated segmentation of the spinal cord on echo planar images using open-access multi-center data.** *Imaging neuroscience (Cambridge, Mass.)*
Banerjee, R., Kaptan, M., Tinnermann, A., Khatibi, A., Dabbagh, A., Büchel, C., Kündig, C. W., Law, C. S., Pfyffer, D., Lythgoe, D. J., Tsvakva, D., Van De Ville, D., Eippert, et al
2025; 3
- **Scapular pain in cervical radiculopathy: A scoping review.** *North American Spine Society journal*
Carmichael, J., Weber, K. A., Rubinstein, S., Svoboda, E., Bade, M.
2025; 23: 100619
- **Rootlets-based registration to the PAM50 spinal cord template** *IMAGING NEUROSCIENCE*
Bedard, S., Valosek, J., Oliva, V., Weber II, K. A., Cohen-Adad, J.
2025; 3
- **Baseline characteristics of participants in the Biomarkers for Evaluating Spine Treatments clinical trial: a sequential multiple assignment randomized trial for chronic low back pain†.** *Pain medicine (Malden, Mass.)*
Rowland, B., Barth, K. S., Bell, K. M., Brooks, A. K., Chadwick, A. L., Cleven, A., Hurley, R. W., Mackey, S., Patel, K. V., Piva, S. R., Schneider, M. J., Al-Kadhi, F., Asante-Nketiah, et al
2025
- **Cross-sectional relationships between spinal cord gray matter volume and pain in individuals with fibromyalgia and opioid use.** *Scientific reports*
Baker, A. K., Rosser, M. A., Park, S. H., Weber, K. A., Martucci, K. T.
2025; 15 (1): 27810
- **Reliability of SCISeg Automated Measurement of Midsagittal Tissue Bridges in Spinal Cord Injuries Using an External Dataset.** *Topics in spinal cord injury rehabilitation*
Connor, J. R., Thornton, W. A., Weber, K. A., Pfyffer, D., Freund, P., Tefertiller, C., Smith, A. C.
2025; 31 (2): 39-49
- **Semiautomated Pipeline Effectively Assesses Severity and Monitor Disease Progression in Compressed Spinal Cord of Degenerative Cervical Myelopathy Patients** *NEUROSURGERY PRACTICE*
Muhammad, F., Weber II, K. A., Bedard, S., Haynes, G., Smith, Z. A.
2025; 6 (2)
- **Lumbar Multifidus Intramuscular fat Concentrations are Associated With Recovery Following Decompressive Surgery for Lumbar Spinal Stenosis. A Longitudinal Cohort Study With 5-year Follow-up.** *Spine*
Wesselink, E. O., Verheijen, E., Djuric, N., Coppieters, M., Elliott, J., Weber, K. A., Wouter, M., Vleggeert-Lankamp, C., Pool-Goudzwaard, A.
2025
- **Body size and intracranial volume interact with the structure of the central nervous system: A multi-center in vivo neuroimaging study** *IMAGING NEUROSCIENCE*
Labounek, R., Bondy, M. T., Paulson, A. L., Bedard, S., Abramovic, M., Alonso-Ortiz, E., Atcheson, N. T., Barlow, L. R., Barry, R. L., Barth, M., Battiston, M., Buechel, C., Budde, et al

2025; 3

- **Impact of Pain Self-Efficacy on Health Outcomes in High-Impact Chronic Pain: A Longitudinal Study.** *The Clinical journal of pain*
You, D. S., Lannon, E., Kim, S., Dildine, T. C., Weber, K. A., Raney, E., Mackey, S. C.
2025
- **The Design and Rationale of the Biomarkers for Evaluating Spine Treatments (BEST) Trial: A Sequential Multiple Assignment Randomized Trial.** *Pain medicine (Malden, Mass.)*
Mauck, M. C., Barth, K. S., Bell, K. M., Brooks, A. K., Chadwick, A. L., Gunn, C. A., Hurley, R. W., Ivanova, A., Piva, S. R., Schneider, M. J., Bailey, J. F., Bagaason, S., Batorsky, et al
2025
- **Innovations in acute and chronic pain biomarkers: enhancing diagnosis and personalized therapy.** *Regional anesthesia and pain medicine*
Mackey, S., Aghaeepour, N., Gaudilliere, B., Kao, M. C., Kaptan, M., Lannon, E., Pfyffer, D., Weber, K.
2025; 50 (2): 110-120
- **Developing a three-dimensional convolutional neural network for full volume auto-segmentation of shoulder Dixon MRI with comparison to Goutallier classification and two-dimensional muscle quality assessment.** *Journal of shoulder and elbow surgery*
Kim, B., Gandomkar, Z., McKay, M. J., Seitz, A. L., Wesselink, E. O., Cass, B., Young, A. A., Linklater, J. M., Szajer, J., Subbiah, K., Elliott, J. M., Weber, K. A.
2025
- **Towards contrast-agnostic soft segmentation of the spinal cord.** *Medical image analysis*
Bédard, S., Karthik, E. N., Tsagkas, C., Pravatà, E., Granziera, C., Smith, A., Weber li, K. A., Cohen-Adad, J.
2025; 101: 103473
- **Responsiveness to transcutaneous spinal stimulation for upper extremity recovery following spinal cord injury: A case series exploration of midsagittal tissue bridges.** *The journal of spinal cord medicine*
Smith, A. C., Morey, C., Thornton, W. A., Connor, J. R., Pfyffer, D., Weber li, K. A., Will, K., Tefertiller, C.
2025: 1-7
- **Problem of pain in the USA: evaluating the generalisability of high-impact chronic pain models over time using National Health Interview Survey (NHIS) data.** *BMJ public health*
Falasinnu, T., Hossain, M. B., Karim, M. E., Weber, K. A., Mackey, S.
2025; 3 (1)
- **SClsegV2: A Universal Tool for Segmentation of Intramedullary Lesions in Spinal Cord Injury**
Karthik, E., Valosek, J., Farner, L., Pfyffer, D., Schading-Sassenhausen, S., Lebet, A., David, G., Smith, A. C., Weber, K. A., Seif, M., Freund, P., Cohen-Adad, J.
edited by Wu, S., Shabestari, B., Xing, L.
SPRINGER INTERNATIONAL PUBLISHING AG.2025: 198-209
- **New insights into the impact of bed rest on lumbopelvic muscles: A computer-vision model approach to measure fat fraction changes.** *Journal of applied physiology (Bethesda, Md. : 1985)*
Wesselink, E. O., Hides, J., Elliott, J. M., Hoggarth, M., Weber, K. A., Salomoni, S. E., Tran, V., Lindsay, K., Hughes, L., Weber, T., Scott, J., Hodges, P. W., Caplan, et al
2024
- **Artificial Intelligence in Spine and Paraspinal Muscle Analysis.** *Advances in experimental medicine and biology*
Elliott, J. M., Wesselink, E. O., Crawford, R. J., Cornwall, J., McKay, M., Smith, Z., Weber, K. A.
2024; 1462: 465-473
- **SClseg: Automatic Segmentation of Intramedullary Lesions in Spinal Cord Injury on T2-weighted MRI Scans.** *Radiology. Artificial intelligence*
Naga Karthik, E., Valošek, J., Smith, A. C., Pfyffer, D., Schading-Sassenhausen, S., Farner, L., Weber, K. A., Freund, P., Cohen-Adad, J.
2024: e240005
- **Tract-specific magnetization transfer ratio provides insights into the severity of degenerative cervical myelopathy.** *Spinal cord*
Haynes, G., Muhammad, F., Weber, K. A., Khan, A. F., Hameed, S., Shakir, H., Van Hal, M., Dickson, D., Rohan, M., Dhaher, Y., Parrish, T., Ding, L., Smith, et al
2024

- **Muscle Fat and Volume Differences in People With Hip-Related Pain Compared With Controls: A Machine Learning Approach.** *Journal of cachexia, sarcopenia and muscle*
Stewart, C., Wesselink, E. O., Perraton, Z., Weber, K. A., King, M. G., Kemp, J. L., Mentiplay, B. F., Crossley, K. M., Elliott, J. M., Heerey, J. J., Scholes, M. J., Lawrenson, P. R., Calabrese, et al
2024
- **Patterns of cortical thickness alterations in degenerative cervical myelopathy: associations with dexterity and gait dysfunctions.** *Brain communications*
Muhammad, F., Weber, K. A., Rohan, M., Smith, Z. A.
2024; 6 (5): fcae279
- **What is normal age-related thigh muscle composition among 45- to 84-year-old adults from the UK Biobank study.** *GeroScience*
Anderson, D. B., Beach, A. J., Chen, L., Feng, H. J., McKay, M. J., Smith, Z. A., Weber, K. A., Wesselink, E. O., Elliott, J. M.
2024
- **Reduced Cervical Muscle Fat Infiltrate Is Associated with Self-Reported Recovery from Chronic Idiopathic Neck Pain Over Six Months: A Magnetic Resonance Imaging Longitudinal Cohort Study.** *Journal of clinical medicine*
Snodgrass, S. J., Weber, K. A., Wesselink, E. O., Stanwell, P., Elliott, J. M.
2024; 13 (15)
- **Cervical Spinal Cord Morphometrics in Degenerative Cervical Myelopathy: Quantification using Semi-automated Normalized Technique and Correlation with Neurological Dysfunctions.** *The spine journal : official journal of the North American Spine Society*
Muhammad, F., Weber, K. A., Bédard, S., Haynes, G., Smith, L., Khan, A. F., Hameed, S., Gray, K., McGovern, K., Rohan, M., Ding, L., Van Hal, M., Dickson, et al
2024
- **Spinal cord lesion MRI and behavioral outcomes in a miniature pig model of spinal cord injury: exploring preclinical potential through an ad hoc comparison with human SCI.** *Spinal cord series and cases*
Smith, A. C., Ahmed, R. U., Weber, K. A., Negahdar, M., Gibson, D., Boakye, M., Rejc, E.
2024; 10 (1): 44
- **Lesion characteristics are associated with bowel, bladder, and overall independence following cervical spinal cord injury.** *The journal of spinal cord medicine*
Thornton, W. A., Smulligan, K., Weber, K. A., Tefertiller, C., Manago, M., Sevigny, M., Wiley, L., Stevens-Lapsley, J., Smith, A. C.
2024: 1-9
- **Prognostic value of tissue bridges in cervical spinal cord injury: a longitudinal, multicentre, retrospective cohort study.** *The Lancet. Neurology*
Pfyffer, D., Smith, A. C., Weber, K. A., Grillhoesl, A., Mach, O., Draganich, C., Berliner, J. C., Tefertiller, C., Leister, I., Maier, D., Schwab, J. M., Thompson, A., Curt, et al
2024
- **Sagittal balance parameters measurement on cervical spine MR images based on superpixel segmentation.** *Frontiers in bioengineering and biotechnology*
Zhong, Y. F., Dai, Y. X., Li, S. P., Zhu, K. J., Lin, Y. P., Ran, Y., Chen, L., Ruan, Y., Yu, P. F., Li, L., Li, W. X., Xu, C. L., Sun, et al
2024; 12: 1337808
- **Response to Letter to the Editor on "A single dermatome clinical prediction rule for independent walking one year after spinal cord injury."** *Archives of physical medicine and rehabilitation*
Smith, A. C., Draganich, C., Thornton, W. A., Berliner, J. C., Lennarson, P. J., Rejc, E., Sevigny, M., Charlifue, S., Tefertiller, C., Weber, K. A.
2024
- **Peak Slope Ratio of the Recruitment Curves Compared to Muscle Evoked Potentials to Optimize Standing Configurations with Percutaneous Epidural Stimulation after Spinal Cord Injury** *JOURNAL OF CLINICAL MEDICINE*
Alazzam, A. M., Ballance, W. B., Smith, A. C., Rejc, E., Weber, K. A., Trainer, R., Gorgey, A. S.
2024; 13 (5)
- **Quantifying lumbar paraspinal intramuscular fat: Accuracy and reliability of automated thresholding models.** *North American Spine Society journal*
Wesselink, E. O., Elliott, J. M., Pool-Goudzwaard, A., Coppieters, M. W., Pevenage, P. P., Di Ieva, A., Weber, K. A.
2024; 17: 100313

- **Recent developments and future avenues for human corticospinal neuroimaging.** *Frontiers in human neuroscience*
Kaptan, M., Pfyffer, D., Konstantopoulos, C. G., Law, C. S., Weber li, K. A., Glover, G. H., Mackey, S.
2024; 18: 1339881
- **The association between lateral hip muscle size/intramuscular fat infiltration and hip strength in active young adults with long standing hip/groin pain.** *Physical therapy in sport : official journal of the Association of Chartered Physiotherapists in Sports Medicine*
Perraton, Z., Mosler, A. B., Lawrenson, P. R., Weber li, K., Elliott, J. M., Wesselink, E. O., Crossley, K. M., Kemp, J. L., Stewart, C., Girdwood, M., King, M. G., Heerey, J. J., Scholes, et al
2023; 65: 95-101
- **Evaluating tissue injury in cervical spondylotic myelopathy with spinal cord MRI: a systematic review.** *European spine journal : official publication of the European Spine Society, the European Spinal Deformity Society, and the European Section of the Cervical Spine Research Society*
Khan, A. F., Mohammadi, E., Haynes, G., Hameed, S., Rohan, M., Anderson, D. B., Weber, K. A., Muhammad, F., Smith, Z. A.
2023
- **Isolating Neurologic Deficits in Cervical Spondylotic Myelopathy: A Case-Controlled Study, Using the NIH Toolbox Motor Battery.** *Neurology. Clinical practice*
Muhammad, F., Baha, A., Haynes, G., Shakir, H., Omini, M., Martin, M., Weber, K. A., Paliwal, M., Van Hal, M., Dickson, D., Dhaher, Y., Zhao, Y. D., Smith, et al
2023; 13 (2): e200126
- **The Problem of Pain in the United States: A Population-Based Characterization of Biopsychosocial Correlates of High Impact Chronic Pain using the National Health Interview Survey.** *The journal of pain*
Falasinnu, T., Hossain, M. B., Weber, K. A., Helmick, C. G., Karim, M. E., Mackey, S.
2023
- **Biopsychosocial Sequelae and Recovery Trajectories From Whiplash Injury Following a Motor Vehicle Collision.** *The spine journal : official journal of the North American Spine Society*
Elliott, J. M., Walton, D. M., Albin, S. R., Courtney, D. M., Siegmund, G. P., Carroll, L. J., Weber, K. A., Smith, A. C.
2023
- **Predicting Outdoor Walking 1 Year After Spinal Cord Injury: A Retrospective, Multisite External Validation Study.** *Journal of neurologic physical therapy : JNPT*
Draganich, C., Weber, K. A., Thornton, W. A., Berliner, J. C., Sevigny, M., Charlifue, S., Tefertiller, C., Smith, A. C.
2023
- **Confounds in neuroimaging: A clear case of sex as a confound in brain-based prediction.** *Frontiers in neurology*
Weber, K. A., Teplin, Z. M., Wager, T. D., Law, C. S., Prabhakar, N. K., Ashar, Y. K., Gilam, G., Banerjee, S., Delp, S. L., Glover, G. H., Hastie, T. J., Mackey, S.
2022; 13: 960760
- **Is fatty infiltration in paraspinal muscles reversible with exercise in people with low back pain? A systematic review.** *European spine journal : official publication of the European Spine Society, the European Spinal Deformity Society, and the European Section of the Cervical Spine Research Society*
Wesselink, E. O., Pool, J. J., Mollema, J., Weber, K. A., Elliott, J. M., Coppieters, M. W., Pool-Goudzwaard, A. L.
2022
- **Greater muscle volume and muscle fat infiltrate in the deep cervical spine extensor muscles (multifidus with semispinalis cervicis) in individuals with chronic idiopathic neck pain compared to age and sex-matched asymptomatic controls: a cross-sectional study.** *BMC musculoskeletal disorders*
Snodgrass, S. J., Stanwell, P., Weber, K. A., Shepherd, S., Kennedy, O., Thompson, H. J., Elliott, J. M.
2022; 23 (1): 973
- **Effects of variability in manually contoured spinal cord masks on fMRI co-registration and interpretation.** *Frontiers in neurology*
Hoggarth, M. A., Wang, M. C., Hemmerling, K. J., Vigotsky, A. D., Smith, Z. A., Parrish, T. B., Weber, K. A., Bright, M. G.
2022; 13: 907581
- **Editorial: Mechanisms and models of musculoskeletal pain and nonpharmacological treatment.** *Frontiers in integrative neuroscience*
Reed, W. R., Weber, K. A., Martins, D. F.
2022; 16: 998413

- **Convolutional neural networks for the automatic segmentation of lumbar paraspinal muscles in people with low back pain.** *Scientific reports*
Wesselink, E. O., Elliott, J. M., Coppieters, M. W., Hancock, M. J., Cronin, B., Pool-Goudzwaard, A., Weber K. A.
2022; 12 (1): 13485
- **Towards defining muscular regions of interest from axial magnetic resonance imaging with anatomical cross-reference: a scoping review of lateral hip musculature.** *BMC musculoskeletal disorders*
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