

# Karen L Troy

## List of Publications by Year in descending order

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Version: 2024-02-01

67  
papers

1,886  
citations

218662

26  
h-index

289230

40  
g-index

74  
all docs

74  
docs citations

74  
times ranked

2013  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of external mechanical stimuli on human bone: a narrative review. <i>Progress in Biomedical Engineering</i> , 2022, 4, 012006.	4.9	3
2	Force Anticipation and Its Potential Implications on Feedforward and Feedback Human Motor Control. <i>Human Factors</i> , 2021, 63, 647-662.	3.5	4
3	A Narrative Review of Metatarsal Bone Stress Injury in Athletic Populations: Etiology, Biomechanics, and Management. <i>PM and R</i> , 2021, 13, 1281-1290.	1.6	6
4	Functional electrical stimulation (FES) assisted rowing combined with zoledronic acid, but not alone, preserves distal femur strength and stiffness in people with chronic spinal cord injury. <i>Osteoporosis International</i> , 2021, 32, 549-558.	3.1	8
5	Dominant and nondominant distal radius microstructure: Predictors of asymmetry and effects of a unilateral mechanical loading intervention. <i>Bone Reports</i> , 2021, 14, 101012.	0.4	1
6	hsa-MiR-19a-3p and hsa-MiR-19b-3p Are Associated with Spinal Cord Injury-Induced Neuropathic Pain: Findings from a Genome-Wide MicroRNA Expression Profiling Screen. <i>Neurotrauma Reports</i> , 2021, 2, 424-439.	1.4	13
7	Running-related injury: How long does it take? Feasibility, preliminary evaluation, and German translation of the University of Wisconsin running and recovery index. <i>Physical Therapy in Sport</i> , 2021, 52, 204-208.	1.9	6
8	Radiographic Pattern to Recognize Overuse Injury in Runners: The Ipsilateral Pubic Ramus and Sacral Bone Stress Injury. <i>PM and R</i> , 2020, 12, 1279-1280.	1.6	1
9	Bone Adaptation in Adult Women Is Related to Loading Dose: A 12-Month Randomized Controlled Trial. <i>Journal of Bone and Mineral Research</i> , 2020, 35, 1300-1312.	2.8	21
10	Relating Bone Strain to Local Changes in Radius Microstructure Following 12 Months of Axial Forearm Loading in Women. <i>Journal of Biomechanical Engineering</i> , 2020, 142, .	1.3	14
11	Bone Mineral Density Testing in Spinal Cord Injury: 2019 ISCD Official Position. <i>Journal of Clinical Densitometry</i> , 2019, 22, 554-566.	1.2	56
12	An image-based method to measure joint deformity in inflammatory arthritis: development and pilot study. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2019, 22, 942-952.	1.6	7
13	Effects of loading rate on the of mechanical behavior of the femur in falling condition. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 96, 269-278.	3.1	14
14	Distal radius microstructure and finite element bone strain are related to site-specific mechanical loading and areal bone mineral density in premenopausal women. <i>Bone Reports</i> , 2018, 8, 187-194.	0.4	12
15	Practical considerations for obtaining high quality quantitative computed tomography data of the skeletal system. <i>Bone</i> , 2018, 110, 58-65.	2.9	19
16	Advancing quantitative techniques to improve understanding of the skeletal structure-function relationship. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2018, 15, 25.	4.6	5
17	Simplified boundary conditions alter cortical-trabecular load sharing at the distal radius; A multiscale finite element analysis. <i>Journal of Biomechanics</i> , 2018, 66, 180-185.	2.1	10
18	Bad to the Bone: Multifaceted Enrichment of Open-Ended Biomechanics Class Projects. <i>Journal of Biomechanical Engineering</i> , 2018, 140, .	1.3	0

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19	Circum-menarcheal bone acquisition is stress-driven: A longitudinal study in adolescent female gymnasts and non-gymnasts. <i>Journal of Biomechanics</i> , 2018, 78, 45-51.	2.1	5
20	Exercise Early and Often: Effects of Physical Activity and Exercise on Women's Bone Health. <i>International Journal of Environmental Research and Public Health</i> , 2018, 15, 878.	2.6	111
21	Moderate-to-heavy smoking in women is potentially associated with compromised cortical porosity and stiffness at the distal radius. <i>Archives of Osteoporosis</i> , 2018, 13, 89.	2.4	5
22	Effects of Teriparatide and Vibration on Bone Mass and Bone Strength in People with Bone Loss and Spinal Cord Injury: A Randomized, Controlled Trial. <i>Journal of Bone and Mineral Research</i> , 2018, 33, 1729-1740.	2.8	54
23	Anthropometric and biomechanical characteristics of body segments in persons with spinal cord injury. <i>Journal of Biomechanics</i> , 2017, 55, 11-17.	2.1	14
24	Validation of a new multiscale finite element analysis approach at the distal radius. <i>Medical Engineering and Physics</i> , 2017, 44, 16-24.	1.7	23
25	Is Atypical Bisphosphonate Treatment Response a Risk Factor for Atypical Femoral Fracture?. <i>Journal of Bone and Joint Surgery - Series A</i> , 2017, 99, e105.	3.0	1
26	Trabecular bone in the calcaneus of runners. <i>PLoS ONE</i> , 2017, 12, e0188200.	2.5	25
27	Assessing the prevalence of compromised bone health among overweight and obese African-American breast cancer survivors: a case-control study. <i>Journal of Cancer Survivorship</i> , 2016, 10, 21-30.	2.9	10
28	An exercise trial targeting posterior shoulder strength in manual wheelchair users: pilot results and lessons learned. <i>Disability and Rehabilitation: Assistive Technology</i> , 2015, 10, 415-420.	2.2	5
29	Response to Dr Khursheed Jeejeebhoy. <i>Journal of Parenteral and Enteral Nutrition</i> , 2015, 39, 271-272.	2.6	0
30	Reduction in Torsional Stiffness and Strength at the Proximal Tibia as a Function of Time Since Spinal Cord Injury. <i>Journal of Bone and Mineral Research</i> , 2015, 30, 1422-1430.	2.8	30
31	Short-Term Bone Formation is Greatest Within High Strain Regions of the Human Distal Radius: A Prospective Pilot Study. <i>Journal of Biomechanical Engineering</i> , 2015, 137, .	1.3	22
32	Measurement of Bone: Diagnosis of SCI-Induced Osteoporosis and Fracture Risk Prediction. <i>Topics in Spinal Cord Injury Rehabilitation</i> , 2015, 21, 267-274.	1.8	34
33	Dual energy X-ray absorptiometry of the knee in spinal cord injury: methodology and correlation with quantitative computed tomography. <i>Spinal Cord</i> , 2014, 52, 821-825.	1.9	28
34	Reduction in Proximal Femoral Strength in Patients With Acute Spinal Cord Injury. <i>Journal of Bone and Mineral Research</i> , 2014, 29, 2074-2079.	2.8	36
35	Exercise-Based Fall Prevention. <i>Exercise and Sport Sciences Reviews</i> , 2014, 42, 161-168.	3.0	75
36	Exploitation of Diagnostic Computed Tomography Scans to Assess the Impact of Nutrition Support on Body Composition Changes in Respiratory Failure Patients. <i>Journal of Parenteral and Enteral Nutrition</i> , 2014, 38, 880-885.	2.6	51

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37	The mechanical consequence of actual bone loss and simulated bone recovery in acute spinal cord injury. <i>Bone</i> , 2014, 60, 141-147.	2.9	31
38	Bone mineral and stiffness loss at the distal femur and proximal tibia in acute spinal cord injury. <i>Osteoporosis International</i> , 2014, 25, 1005-1015.	3.1	59
39	The Prevalence of Sarcopenia in Patients With Respiratory Failure Classified as Normally Nourished Using Computed Tomography and Subjective Global Assessment. <i>Journal of Parenteral and Enteral Nutrition</i> , 2014, 38, 873-879.	2.6	110
40	Predicting surface strains at the human distal radius during an in vivo loading task – Finite element model validation and application. <i>Journal of Biomechanics</i> , 2014, 47, 2759-2765.	2.1	23
41	Bone mineral loss at the proximal femur in acute spinal cord injury. <i>Osteoporosis International</i> , 2013, 24, 2461-2469.	3.1	33
42	Torsional stiffness and strength of the proximal tibia are better predicted by finite element models than DXA or QCT. <i>Journal of Biomechanics</i> , 2013, 46, 1655-1662.	2.1	51
43	ADAMTS5 is required for biomechanically-stimulated healing of murine tendinopathy. <i>Journal of Orthopaedic Research</i> , 2013, 31, 1540-1548.	2.3	17
44	In vivo loading model to examine bone adaptation in humans: A pilot study. <i>Journal of Orthopaedic Research</i> , 2013, 31, 1406-1413.	2.3	21
45	A linear-actuated torsional device to replicate clinically relevant spiral fractures in long bones. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2012, 226, 729-733.	1.8	3
46	Task-Specific Training Reduces Trip-Related Fall Risk in Women. <i>Medicine and Science in Sports and Exercise</i> , 2012, 44, 2410-2414.	0.4	98
47	Finite element prediction of surface strain and fracture strength at the distal radius. <i>Medical Engineering and Physics</i> , 2012, 34, 290-298.	1.7	55
48	Fear of Falling Does Not Alter the Kinematics of Recovery From an Induced Trip: A Preliminary Study. <i>Archives of Physical Medicine and Rehabilitation</i> , 2011, 92, 2093-2095.	0.9	9
49	On the filtering of intersegmental loads during running. <i>Gait and Posture</i> , 2011, 34, 435-438.	1.4	28
50	Number Crunching: How and When Will Numerical Models Be Used in the Clinical Setting?. <i>Current Osteoporosis Reports</i> , 2011, 9, 1-3.	3.6	4
51	Biomechanical validation of upper extremity exercise in wheelchair users: design considerations and improvements in a prototype device. <i>Disability and Rehabilitation: Assistive Technology</i> , 2011, 6, 22-28.	2.2	4
52	Simulating Distal Radius Fracture Strength Using Biomechanical Tests: A Modeling Study Examining the Influence of Boundary Conditions. <i>Journal of Biomechanical Engineering</i> , 2011, 133, 114501.	1.3	14
53	Theoretical contribution of the upper extremities to reducing trunk extension following a laboratory-induced slip. <i>Journal of Biomechanics</i> , 2009, 42, 1339-1344.	2.1	38
54	Contact stress distributions on the femoral head of the emu ( <i>Dromaius novaehollandiae</i> ). <i>Journal of Biomechanics</i> , 2009, 42, 2495-2500.	2.1	13

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55	Effects of an attention demanding task on dynamic stability during treadmill walking. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2008, 5, 12.	4.6	50
56	Trunk kinematics and fall risk of older adults: Translating biomechanical results to the clinic. <i>Journal of Electromyography and Kinesiology</i> , 2008, 18, 197-204.	1.7	120
57	Modifiable performance domain risk-factors associated with slip-related falls. <i>Gait and Posture</i> , 2008, 28, 461-465.	1.4	37
58	Habitual Site-Specific Upper Extremity Loading is Associated with Increased Bone Mineral of the Ultradistal Radius in Young Women. <i>Journal of Women's Health</i> , 2008, 17, 1577-1581.	3.3	10
59	Asymmetrical ground impact of the hands after a trip-induced fall: Experimental kinematics and kinetics. <i>Clinical Biomechanics</i> , 2007, 22, 1088-1095.	1.2	26
60	Off-axis loads cause failure of the distal radius at lower magnitudes than axial loads: A finite element analysis. <i>Journal of Biomechanics</i> , 2007, 40, 1670-1675.	2.1	66
61	Habitual hip joint activity level of the penned EMU ( <i>Dromaius novaehollandie</i> ). <i>Iowa orthopaedic journal, The</i> , 2007, 27, 17-23.	0.5	9
62	Recovery responses to surrogate slipping tasks differ from responses to actual slips. <i>Gait and Posture</i> , 2006, 24, 441-447.	1.4	43
63	Bone mineral density of the proximal femur is not related to dynamic joint loading during locomotion in young women. <i>Bone</i> , 2006, 38, 125-129.	2.9	16
64	The presence of an obstacle influences the stepping response during induced trips and surrogate tasks. <i>Experimental Brain Research</i> , 2005, 161, 343-350.	1.5	35
65	Attention demanding tasks during treadmill walking reduce step width variability in young adults. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2005, 2, 25.	4.6	72
66	Osteocyte-based Image Analysis for Quantitation of Histologically Apparent Femoral Head Osteonecrosis: Application to an Emu Model. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2004, 7, 25-32.	1.6	6
67	Focal cryogen insults for inducing segmental osteonecrosis: computational and experimental assessments of thermal fields. <i>Journal of Biomechanics</i> , 2003, 36, 1317-1326.	2.1	34