

Jennifer S Wayne

List of Publications by Year in descending order

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88
papers

2,450
citations

186209

28
h-index

223716

46
g-index

88
all docs

88
docs citations

88
times ranked

2264
citing authors

#	ARTICLE	IF	CITATIONS
1	In Vivo Response of Polylactic Acid-Alginate Scaffolds and Bone Marrow-Derived Cells for Cartilage Tissue Engineering. <i>Tissue Engineering</i> , 2005, 11, 953-963.	4.9	157
2	Contribution of the Deltoid Ligament to Ankle Joint Contact Characteristics: A Cadaver Study. <i>Foot and Ankle International</i> , 1996, 17, 317-324.	1.1	125
3	MR Imaging of Normal and Matrix-depleted Cartilage: Correlation with Biomechanical Function and Biochemical Composition. <i>Radiology</i> , 2003, 228, 493-499.	3.6	115
4	Role of the coronoid process in varus osteoarticular stability of the elbow. <i>Journal of Shoulder and Elbow Surgery</i> , 2005, 14, 441-446.	1.2	109
5	Vitamin C promotes wound healing through novel pleiotropic mechanisms. <i>International Wound Journal</i> , 2016, 13, 572-584.	1.3	98
6	Articular Cartilage Defects: In Vitro Evaluation of Accuracy and Interobserver Reliability for Detection and Grading with US. <i>Radiology</i> , 2000, 215, 846-851.	3.6	85
7	Computational Modeling to Predict Mechanical Function of Joints: Application to the Lower Leg With Simulation of Two Cadaver Studies. <i>Journal of Biomechanical Engineering</i> , 2007, 129, 811-817.	0.6	84
8	Computational Model of the Lower Leg and Foot/Ankle Complex: Application to Arch Stability. <i>Journal of Biomechanical Engineering</i> , 2010, 132, 021009.	0.6	75
9	Application of the u-p Finite Element Method to the Study of Articular Cartilage. <i>Journal of Biomechanical Engineering</i> , 1991, 113, 397-403.	0.6	65
10	Effects of Medializing Calcaneal Osteotomy on Achilles Tendon Lengthening and Plantar Foot Pressures. <i>Foot and Ankle International</i> , 2003, 24, 523-529.	1.1	64
11	A cadaveric study examining acromioclavicular joint congruity after different methods of coracoclavicular loop repair. <i>Journal of Shoulder and Elbow Surgery</i> , 2003, 12, 595-598.	1.2	62
12	Biomechanical Comparison of Ankle Arthrodesis Techniques: Crossed Screws vs. Blade Plate. <i>Foot and Ankle International</i> , 2001, 22, 575-580.	1.1	59
13	Comparative Analysis of Biomechanical Performance of Available Nerve Glues. <i>Journal of Hand Surgery</i> , 2008, 33, 893-899.	0.7	56
14	The Effects of Low-Intensity Ultrasound on Medial Collateral Ligament Healing in the Rabbit Model. <i>American Journal of Sports Medicine</i> , 2005, 33, 1048-1056.	1.9	49
15	A Novel Approach for Determining Three-Dimensional Acetabular Orientation: Results from Two Hundred Subjects. <i>Journal of Bone and Joint Surgery - Series A</i> , 2014, 96, 1776-1784.	1.4	48
16	Plantar Pressure Analysis in Cadaver Feet After Bony Procedures Commonly Used in the Treatment of Stage II Posterior Tibial Tendon Insufficiency. <i>Foot and Ankle International</i> , 2007, 28, 1143-1153.	1.1	46
17	Effects of surgical correction for the treatment of adult acquired flatfoot deformity: A computational investigation. <i>Journal of Orthopaedic Research</i> , 2011, 29, 1047-1054.	1.2	45
18	Does Femoral Component Loosening Predispose to Femoral Fracture?: An In Vitro Comparison of Cemented Hips. <i>Clinical Orthopaedics and Related Research</i> , 2010, 468, 497-503.	0.7	44

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19	Range of Motion Effects of Distal Pole Scaphoid Excision and Triquetral Excision After Radioscapholunate Fusion: A Cadaver Study. <i>Journal of Hand Surgery</i> , 2009, 34, 832-837.	0.7	41
20	Hip contact stress and femoral neck retroversion: a biomechanical study to evaluate implication of femoroacetabular impingement. <i>Journal of Hip Preservation Surgery</i> , 2015, 2, 287-294.	0.6	40
21	Plantar Pressure and Load in Cadaver Feet After a Weil or Chevron Osteotomy. <i>Foot and Ankle International</i> , 2005, 26, 158-165.	1.1	39
22	The Effects of a Medializing Calcaneal Osteotomy With and Without Superior Translation On Achilles Tendon Elongation and Plantar Foot Pressures. <i>Foot and Ankle International</i> , 2005, 26, 365-370.	1.1	33
23	Development and Validation of a Computational Musculoskeletal Model of the Elbow and Forearm. <i>Annals of Biomedical Engineering</i> , 2009, 37, 803-812.	1.3	33
24	Validation of a population of patient-specific adult acquired flatfoot deformity models. <i>Journal of Orthopaedic Research</i> , 2013, 31, 1861-1868.	1.2	33
25	Biomechanical Evaluation of a Locking and Nonlocking Reconstruction Plate in an Osteoporotic Calcaneal Fracture Model. <i>Foot and Ankle International</i> , 2011, 32, 432-436.	1.1	32
26	Development and Validation of a Computational Model for Investigation of Wrist Biomechanics. <i>Annals of Biomedical Engineering</i> , 2011, 39, 2807-2815.	1.3	31
27	Long-term storage effects on canine osteochondral allografts. <i>Acta Orthopaedica</i> , 1990, 61, 539-545.	1.4	30
28	Characterization of the tensile properties and histologic/biochemical changes in normal chicken tendon at the site of suture insertion. <i>Journal of Hand Surgery</i> , 2002, 27, 605-614.	0.7	28
29	Internal Fixation of Experimental Intraarticular Calcaneal Fractures: A Biomechanical Analysis of Two Fixation Methods. <i>Journal of Orthopaedic Trauma</i> , 1997, 11, 425-428.	0.7	28
30	Comparison of the Syndesmotic Staple to the Transsyndesmotic Screw: A Biomechanical Study. <i>Foot and Ankle International</i> , 2005, 26, 224-230.	1.1	27
31	Analysis of Relative Motion Splint in the Treatment of Zone VI Extensor Tendon Injuries. <i>Journal of Hand Surgery</i> , 2006, 31, 1118-1122.	0.7	27
32	The Effect of Tibiotalar Fixation on Foot Biomechanics. <i>Foot and Ankle International</i> , 1997, 18, 792-797.	1.1	26
33	The interaction of ceramide 1-phosphate with group IVA cytosolic phospholipase A ₂ coordinates acute wound healing and repair. <i>Science Signaling</i> , 2019, 12, .	1.6	25
34	Computational Model of the Human Elbow and Forearm: Application to Complex Varus Instability. <i>Annals of Biomedical Engineering</i> , 2011, 39, 1084-1091.	1.3	24
35	High Risk of Surgical Glove Perforation From Surgical Rotatory Instruments. <i>Clinical Orthopaedics and Related Research</i> , 2016, 474, 2513-2517.	0.7	24
36	Complex varus elbow instability: A terrible triad model. <i>Journal of Shoulder and Elbow Surgery</i> , 2009, 18, 269-274.	1.2	23

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37	Plantar Forces in Flexor Hallucis Longus Versus Flexor Digitorum Longus Transfer in Adult Acquired Flatfoot Deformity. <i>Foot and Ankle International</i> , 2013, 34, 1286-1293.	1.1	23
38	The Effect of Prophylactic Cerclage Wires in Primary Total Hip Arthroplasty: A Biomechanical Study. <i>Journal of Arthroplasty</i> , 2017, 32, 2023-2027.	1.5	23
39	Initial Stability of Press-Fit Acetabular Components Under Rotational Forces. <i>Journal of Arthroplasty</i> , 2014, 29, 1038-1042.	1.5	22
40	Elongation Behavior of Calcaneofibular and Cervical Ligaments in a Closed Kinetic Chain: Pathomechanics of Lateral Hindfoot Instability. <i>Foot and Ankle International</i> , 2002, 23, 515-520.	1.1	21
41	Does Increased Coefficient of Friction of Highly Porous Metal Increase Initial Stability at the Acetabular Interface?. <i>Journal of Arthroplasty</i> , 2016, 31, 721-726.	1.5	21
42	Proximal humeral fracture fixation: a biomechanical comparison of two constructs. <i>Journal of Shoulder and Elbow Surgery</i> , 2013, 22, 129-136.	1.2	19
43	Single limb immobilization model for bone loss from unloading. <i>Journal of Biomechanics</i> , 2019, 83, 181-189.	0.9	19
44	Elongation Behavior of Calcaneofibular and Cervical Ligaments during Inversion Loads Applied in an Open Kinetic Chain. <i>Foot and Ankle International</i> , 1998, 19, 232-239.	1.1	18
45	Initial Stability of Cemented vs Cementless Tibial Components Under Cyclic Load. <i>Journal of Arthroplasty</i> , 2017, 32, 2556-2562.	1.5	18
46	Patient specific computational models to optimize surgical correction for flatfoot deformity. <i>Journal of Orthopaedic Research</i> , 2017, 35, 1523-1531.	1.2	18
47	Comparison of Two Proximal Osteotomies for the Treatment of Hallux Valgus. <i>Foot and Ankle International</i> , 1998, 19, 425-429.	1.1	17
48	Effect of Pressure Applied During Casting on Temperatures Beneath Casts. <i>Journal of Pediatric Orthopaedics</i> , 2011, 31, 791-797.	0.6	17
49	Parallel Plating of Simulated Distal Humerus Fractures Demonstrates Increased Stiffness Relative to Orthogonal Plating With a Distal Humerus Locking Plate System. <i>Journal of Orthopaedic Trauma</i> , 2016, 30, e118-e122.	0.7	17
50	Biomechanical Comparison of Screw Versus Plate/Screw Construct for Talonavicular Fusion. <i>Foot and Ankle International</i> , 2009, 30, 150-156.	1.1	16
51	Reattachment of Flexor Digitorum Profundus Avulsion: Biomechanical Performance of 3 Techniques. <i>Journal of Hand Surgery</i> , 2014, 39, 2214-2219.	0.7	15
52	Calcium Triglyceride Versus Polymethylmethacrylate Augmentation: A Biomechanical Analysis of Pullout Strength. <i>Spine Deformity</i> , 2013, 1, 10-15.	0.7	14
53	Ibandronate Treatment Before and After Implant Insertion Impairs Osseointegration in Aged Rats with Ovariectomy Induced Osteoporosis. <i>JBMR Plus</i> , 2019, 3, e10184.	1.3	14
54	Effects of Degree of Surgical Correction for Flatfoot Deformity in Patient-Specific Computational Models. <i>Annals of Biomedical Engineering</i> , 2015, 43, 1947-1956.	1.3	13

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55	Fixation for Metacarpal Neck Fracture: A Biomechanical Study. <i>Hand</i> , 2015, 10, 438-443.	0.7	13
56	Ligamentous Lisfranc Injury: A Biomechanical Comparison of Dorsal Plate Fixation and Transarticular Screws. <i>Journal of Orthopaedic Trauma</i> , 2019, 33, e270-e275.	0.7	13
57	Biomechanical Performance of a New Device for Medial Malleolar Fractures. <i>Foot and Ankle International</i> , 2013, 34, 426-433.	1.1	12
58	A Population of Patient-Specific Adult Acquired Flatfoot Deformity Models Before and After Surgery. <i>Annals of Biomedical Engineering</i> , 2014, 42, 1913-1922.	1.3	11
59	Loosely Implanted Cementless Stems May Become Rotationally Stable After Loading. <i>Clinical Orthopaedics and Related Research</i> , 2014, 472, 2231-2236.	0.7	11
60	Contact models of repaired articular surfaces: influence of loading conditions and the superficial tangential zone. <i>Biomechanics and Modeling in Mechanobiology</i> , 2011, 10, 461-471.	1.4	10
61	Biomechanical Evaluation of Osteoporotic Proximal Periprosthetic Femur Fractures With Proximal Bicortical Fixation and Allograft Struts. <i>Journal of Orthopaedic Trauma</i> , 2018, 32, 508-514.	0.7	10
62	Novel potential marker for native anteversion of the proximal femur. <i>Journal of Orthopaedic Research</i> , 2017, 35, 1724-1731.	1.2	9
63	Mechanical Properties and Cellular Proliferation of Electrospun Collagen Type II. <i>Tissue Engineering</i> , 2004, 10, 1510-1517.	4.9	9
64	Unicortical PEEK inset locking fixation for metacarpal fractures: a biomechanical study. <i>European Journal of Orthopaedic Surgery and Traumatology</i> , 2014, 24, 1415-1420.	0.6	8
65	Biomechanical Performance of Lateral Versus Dual Locking Plates for Calcaneal Fractures. <i>Journal of Foot and Ankle Surgery</i> , 2015, 54, 830-835.	0.5	8
66	Simulation of Contact Gait in the Cadaveric Lower Extremity using a Novel Below Knee Simulator. <i>Foot and Ankle International</i> , 2008, 29, 66-71.	1.1	7
67	Automated femoral version estimation without the distal femur. <i>Journal of Orthopaedic Research</i> , 2018, 36, 3161-3168.	1.2	7
68	Acellular mineralized allogenic block bone graft does not remodel during the 10 weeks following concurrent implant placement in a rabbit femoral model. <i>Clinical Oral Implants Research</i> , 2020, 31, 37-48.	1.9	7
69	MECHANICAL EFFECTS OF THE EXTENDED TROCHANTERIC OSTEOTOMY. <i>Journal of Bone and Joint Surgery - Series A</i> , 2005, 87, 521-529.	1.4	7
70	Effect of Pigmentation on the Mechanical and Polymerization Characteristics of Bone Cement. <i>Journal of Arthroplasty</i> , 2006, 21, 606-611.	1.5	6
71	Plantar Measurements to Determine Success of Surgical Correction of Stage IIb Adult Acquired Flatfoot Deformity. <i>Journal of Foot and Ankle Surgery</i> , 2014, 53, 562-566.	0.5	6
72	Biomechanical evaluation of the risk of secondary fracture around short versus long cephalomedullary nails. <i>European Journal of Orthopaedic Surgery and Traumatology</i> , 2017, 27, 1103-1108.	0.6	6

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73	Predictive Behavior of a Computational Foot/Ankle Model through Artificial Neural Networks. Computational and Mathematical Methods in Medicine, 2017, 2017, 1-8.	0.7	6
74	External Fixation in the Treatment of Tibial Pilon Fractures: Comparison of Two Frames in Torsion. Foot and Ankle International, 2007, 28, 823-830.	1.1	5
75	Soft tissue structures resisting anterior instability in a computational glenohumeral joint model. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 781-789.	0.9	5
76	Application of a Three-Dimensional Computational Wrist Model to Proximal Row Carpectomy. Journal of Biomechanical Engineering, 2015, 137, 061001.	0.6	5
77	Effect of restoration volume on stresses in a mandibular molar: A finite element study. Journal of Prosthetic Dentistry, 2014, 112, 925-931.	1.1	3
78	Automatic Characterization of Pelvic and Sacral Measures from 200 Subjects. Journal of Bone and Joint Surgery - Series A, 2020, 102, e130.	1.4	3
79	Computational wrist analysis of functional restoration after scapholunate dissociation repair. Medical and Biological Engineering and Computing, 2019, 57, 1465-1479.	1.6	2
80	Proximal Tendon-Prosthesis Junction for Active Tendon Implants of the Hand: A Biomechanical Comparison of 2 Techniques. Journal of Hand Surgery, 2015, 40, 109-114.	0.7	1
81	Neural Network Optimization of Ligament Stiffnesses for the Enhanced Predictive Ability of a Patient-Specific, Computational Foot/Ankle Model. Journal of Biomechanical Engineering, 2017, 139, .	0.6	1
82	In vitro biomechanical testing of the 3.5Åmm LCP in torsion: a comparison of unicortical locking to bicortical nonlocking screws placed nearest the fracture gap. BMC Research Notes, 2017, 10, 768.	0.6	1
83	Computed tomography confirmation of component rotation in nanosensor-balanced total knee arthroplasty. Arthroplasty Today, 2019, 5, 64-67.	0.8	1
84	Computational analysis of the clinical presentation of a ligamentous Lisfranc injury. Journal of Orthopaedic Research, 2021, 39, 2725-2731.	1.2	1
85	Influence of the Superficial Tangential Zone for Cartilage Modeled in Finite Deformation and With Tension/Compression Nonlinearity. , 2008, , .		1
86	Bone-Prosthesis Junction for Active Tendon Implants: A Biomechanical Comparison of 2 Fixation Techniques. Journal of Hand Surgery, 2016, 41, 526-531.	0.7	0
87	Capturing the 2019 H. R. Lissner Medal Presentation With Jennifer S. Wayne. Journal of Biomechanical Engineering, 2020, 142, .	0.6	0
88	Computational analysis of Lisfranc surgical repairs. Journal of Orthopaedic Research, 2022, , .	1.2	0