Wilson C Hayes

List of Publications by Year
in descending order

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80 papers	9,410 citations	41344 49 h-index	66911 78 g-index
81 all docs	81 docs citations	81 times ranked	5521 citing authors

#	Article	IF	Citations
1	Biomechanics of Fractures. , 2009, , 51-81.		3
2	Forensic Injury Biomechanics. Annual Review of Biomedical Engineering, 2007, 9, 55-86.	12.3	39
3	Determining Fall Direction and Impact Location for Various Disturbances and Gait Speeds Using the Articulated Total Body Model. Journal of Biomechanical Engineering, 2007, 129, 393-399.	1.3	9
4	Stride Width Discriminates Gait of Side-Fallers Compared to Other-Directed Fallers During Overground Walking. Journal of Aging and Health, 2007, 19, 200-212.	1.7	31
5	Preventative ibandronate treatment has the most beneficial effect on the microstructure of bone in experimental tumor osteolysis. Journal of Bone and Mineral Metabolism, 2007, 25, 86-92.	2.7	5
6	Agility and Balance Differ Between Older Community and Retirement Facility Residents. Journal of Applied Gerontology, 2004, 23, 457-468.	2.0	12
7	Balance Self-Efficacy Predicts Risk Factors for Side Falls and Frequent Falls in Community-Dwelling Elderly. Journal of Aging and Physical Activity, 2003, 11, 28-39.	1.0	9
8	The Quick Step: A New Test for Measuring Reaction Time and Lateral Stepping Velocity. Journal of Applied Biomechanics, 2002, 18, 271-277.	0.8	9
9	The evaluation of a rat model for the analysis of densitometric and biomechanical properties of tumor-induced osteolysis. Journal of Orthopaedic Research, 2001, 19, 200-205.	2.3	22
10	The threshold trip duration for which recovery is no longer possible is associated with strength and reaction time. Journal of Biomechanics, 2001, 34, 589-595.	2.1	42
11	Disturbance type and gait speed affect fall direction and impact location. Journal of Biomechanics, 2001, 34, 309-317.	2.1	150
12	1999 Young Investigator Research Award Runner-Up. Spine, 2000, 25, 158.	2.0	119
13	Postfracture Instability of Vertebrae With Simulated Defects Can Be Predicted From Computed Tomography Data. Spine, 2000, 25, 1775-1781.	2.0	17
14	Functional Mobility Discriminates Nonfallers From One-Time and Frequent Fallers. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2000, 55, M672-M676.	3.6	98
15	Hamstring Tendon Grafts for Reconstruction of the Anterior Cruciate Ligament. Journal of Bone and Joint Surgery - Series A, 1999, 81, 549-57.	3.0	554
16	A Comparison of the Synthes 4.5â€mm Cannulated Screw and the Synthes 4.5â€mm Standard Cortex Screw Systems in Equine Bone. Veterinary Surgery, 1998, 27, 540-546.	1.0	12
17	Bone regeneration by implantation of purified, cultureâ€expanded human mesenchymal stem cells. Journal of Orthopaedic Research, 1998, 16, 155-162.	2.3	680
18	Computed tomography-based finite element analysis predicts failure loads and fracture patterns for vertebral sections. Journal of Orthopaedic Research, 1998, 16, 300-308.	2.3	122

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19	Fall Direction, Bone Mineral Density, and Function: Risk Factors for Hip Fracture in Frail Nursing Home Elderly. American Journal of Medicine, 1998, 104, 539-545.	1.5	300
20	Tibiofemoral Contact Pressures in Degenerative Joint Disease. Clinical Orthopaedics and Related Research, 1998, 348, 233???245.	1.5	51
21	Predicting Failure of Thoracic Vertebrae With Simulated and Actual Metastatic Defects. Clinical Orthopaedics and Related Research, 1997, 344, 313???319.	1.5	52
22	<title>Biomechanical competence of microstructural bone in the progress of adaptive bone remodeling</title>. , 1997, 3149, 69.		10
23	Load Sharing Between the Shell and Centrum in the Lumbar Vertebral Body. Spine, 1997, 22, 140-150.	2.0	174
24	Characterization of partially saturated poly(propylene fumarate) for orthopaedic application. Journal of Biomaterials Science, Polymer Edition, 1997, 8, 893-904.	3.5	79
25	Distribution of contact force during impact to the hip. Annals of Biomedical Engineering, 1997, 25, 499-508.	2.5	68
26	Ex vivo degradation of a poly(propylene glycol-fumarate) biodegradable particulate composite bone cement. , 1997, 35, 383-389.		51
27	In vitro degradation of a poly(propylene fumarate)-based composite material. Biomaterials, 1996, 17, 2127-2130.	11.4	154
28	Hip impact velocities and body configurations for voluntary falls from standing height. Journal of Biomechanics, 1996, 29, 807-811.	2.1	150
29	Age-related differences in post-yield damage in human cortical bone. Experiment and model. Journal of Biomechanics, 1996, 29, 1463-1471.	2.1	117
30	The tensile behavior of demineralized bovine cortical bone. Journal of Biomechanics, 1996, 29, 1497-1501.	2.1	74
31	The effect of impact direction on the structural capacity of the proximal femur during falls. Journal of Bone and Mineral Research, 1996, 11, 377-383.	2.8	135
32	In-Vivo Degradation of a Poly(Propylene-Fumarate) Biodegradable, Particulate Composite Bone Cement. Materials Research Society Symposia Proceedings, 1995, 394, 15.	0.1	12
33	Force attenuation in trochanteric soft tissues during impact from a fall. Journal of Orthopaedic Research, 1995, 13, 956-962.	2.3	163
34	Effects of selected thermal variables on the mechanical properties of trabecular bone. Biomaterials, 1995, 16, 545-551.	11.4	72
35	The Ingrowth of New Bone Tissue and Initial Mechanical Properties of a Degrading Polymeric Composite Scaffold. Tissue Engineering, 1995, 1, 41-52.	4.6	151
36	Patellofemoral contact pressures exceed the compressive yield strength of UHMWPE in total knee arthroplasties. Journal of Arthroplasty, 1995, 10, 363-368.	3.1	59

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37	Maxillary molar extraction causes increased bone loss in the mandible of ovariectomized rats. Journal of Bone and Mineral Research, 1995, 10, 1087-1093.	2.8	35
38	Anterior Cruciate Ligament Graft Fixation. American Journal of Sports Medicine, 1994, 22, 240-247.	4.2	358
39	The Effects of Donor Age and Strain Rate on the Biomechanical Properties of Bone-Patellar Tendon-Bone Allografts. American Journal of Sports Medicine, 1994, 22, 328-333.	4.2	167
40	How do we prevent hip fractures?. Calcified Tissue International, 1994, 54, 175-177.	3.1	5
41	Compressive creep behavior of bovine trabecular bone. Journal of Biomechanics, 1994, 27, 301-310.	2.1	76
42	Mechanical behavior of damaged trabecular bone. Journal of Biomechanics, 1994, 27, 1309-1318.	2.1	103
43	Trabecular bone exhibits fully linear elastic behavior and yields at low strains. Journal of Biomechanics, 1994, 27, 1127-1136.	2.1	270
44	Finite element modeling of damage accumulation in trabecular bone under cyclic loading. Journal of Biomechanics, 1994, 27, 145-155.	2.1	89
45	A method for measuring the structural properties of the rat mandible. Archives of Oral Biology, 1994, 39, 1029-1033.	1.8	13
46	Differences between the tensile and compressive strengths of bovine tibial trabecular bone depend on modulus. Journal of Biomechanics, 1994, 27, 1137-1146.	2.1	290
47	Age-related hip fractures. Current Opinion in Orthopaedics, 1994, 5, 9-15.	0.3	6
48	Trochanteric bone mineral density is associated with type of hip fracture in the elderly. Journal of Bone and Mineral Research, 1994, 9, 1889-1894.	2.8	121
49	Compressive fatigue behavior of bovine trabecular bone. Journal of Biomechanics, 1993, 26, 453-463.	2.1	90
50	Theoretical analysis of the experimental artifact in trabecular bone compressive modulus. Journal of Biomechanics, 1993, 26, 599-607.	2.1	122
51	Trabecular bone modulus and strength can depend on specimen geometry. Journal of Biomechanics, 1993, 26, 991-1000.	2.1	133
52	Impact near the hip dominates fracture risk in elderly nursing home residents who fall. Calcified Tissue International, 1993, 52, 192-198.	3.1	379
53	Geometric variables from DXA of the radius predict forearm fracture load in vitro. Calcified Tissue International, 1993, 52, 199-204.	3.1	127
54	Read my hips: Measuring trochanteric soft tissue thickness. Calcified Tissue International, 1993, 52, 85-89.	3.1	50

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55	The biomechanics of interference screw fixation of patellar tendon anterior cruciate ligament grafts. American Journal of Sports Medicine, 1993, 21, 880-886.	4.2	137
56	A 20-Year Perspective on the Mechanical Properties of Trabecular Bone. Journal of Biomechanical Engineering, 1993, 115, 534-542.	1.3	239
57	Biodegradable Polymer Composites for Temporary Replacement of Trabecular Bone: The Effect of Polymer Molecular Weight on Composite Strength and Modulus. Materials Research Society Symposia Proceedings, 1993, 331, 251.	0.1	2
58	Strength Reductions from Trabecular Destruction Within Thoracic Vertebrae. Journal of Spinal Disorders, 1993, 6, 130???136.	1.1	38
59	Role of loads and prosthesis material properties on the mechanics of the proximal femur after total hip arthroplasty. Journal of Orthopaedic Research, 1992, 10, 405-422.	2.3	189
60	Mechanical properties of trabecular bone within and adjacent to osseous metastases. Journal of Bone and Mineral Research, 1992, 7, 1165-1171.	2.8	41
61	Local Demineralization as a Model for Bone Strength Reductions in Lytic Transcortical Metastatic Lesions. Investigative Radiology, 1991, 26, 934-938.	6.2	20
62	Biomechanical evaluation of a biodegradable composite as an adjunct to internal fixation of proximal femur fractures. Journal of Orthopaedic Research, 1991, 9, 48-53.	2.3	20
63	Correlations between photon absorption properties and failure load of the distal radiusin vitro. Calcified Tissue International, 1991, 49, 292-297.	3.1	67
64	Mechanical Properties of Trabecular Bone from the Proximal Femur. Journal of Computer Assisted Tomography, 1990, 14, 107-114.	0.9	244
65	Effects of retinacular release and tibial tubercle elevation in patellofemoral degenerative joint disease. Journal of Orthopaedic Research, 1990, 8, 856-862.	2.3	57
66	In vivo histologic and biomechanical characterization of a biodegradable particulate composite bone cement. Journal of Biomedical Materials Research Part B, 1989, 23, 1-16.	3.1	40
67	Biomechanical properties of the proximal femur determined in vitro by single-energy quantitative computed tomography. Journal of Bone and Mineral Research, 1989, 4, 715-722.	2.8	88
68	Contact pressures in chondromalacia patellae and the effects of capsular reconstructive procedures. Journal of Orthopaedic Research, 1988, 6, 499-508.	2.3	104
69	Sex differences in ageâ€related remodeling of the femur and tibia. Journal of Orthopaedic Research, 1988, 6, 886-896.	2.3	359
70	In vitro characterization and biomechanical optimization of a biodegradable particulate composite bone cement. Journal of Biomedical Materials Research Part B, 1988, 22, 1071-1082.	3.1	32
71	Biomechanical optimization of a model particulate composite for orthopaedic applications. Journal of Orthopaedic Research, 1986, 4, 76-85.	2.3	14
72	Stress analysis of a condylar knee tibial component: Influence of metaphyseal shell properties and cement injection depth. Journal of Orthopaedic Research, 1985, 3, 424-434.	2.3	37

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73	Stress analysis of compression plate fixation and its effects on long bone remodeling. Journal of Biomechanics, 1985, 18, 141-150.	2.1	44
74	Tensile strength of bovine trabecular bone. Journal of Biomechanics, 1985, 18, 723-727.	2.1	88
75	Age changes in geometry and mineral content of the lower limb bones. Annals of Biomedical Engineering, 1984, 12, 573-584.	2.5	27
76	Structural changes in the femur with the transition to agriculture on the Georgia coast. American Journal of Physical Anthropology, 1984, 64, 125-136.	2.1	200
77	Cross-sectional geometry of Pecos Pueblo femora and tibiaeâ€"A biomechanical investigation: I. Method and general patterns of variation. American Journal of Physical Anthropology, 1983, 60, 359-381.	2.1	489
78	Cross-sectional geometry of Pecos Pueblo femora and tibiaeâ€"A biomechanical investigation: II. Sex, age, and side differences. American Journal of Physical Anthropology, 1983, 60, 383-400.	2.1	253
79	Multiaxial strength characteristics of trabecular bone. Journal of Biomechanics, 1983, 16, 743-752.	2.1	122
80	An interactive graphics package for calculating cross-sectional properties of complex shapes. Journal of Biomechanics, 1980, 13, 59-64.	2.1	218