Marcus G Pandy

List of Publications by Year
in descending order

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192	15,441	18482	18647
papers	citations	62 h-index	119 g-index

196	196	196	8384
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dynamic Optimization of Human Walking. Journal of Biomechanical Engineering, 2001, 123, 381-390.	1.3	858
2	Static and dynamic optimization solutions for gait are practically equivalent. Journal of Biomechanics, 2001, 34, 153-161.	2.1	650
3	Grand challenge competition to predict in vivo knee loads. Journal of Orthopaedic Research, 2012, 30, 503-513.	2.3	449
4	A Dynamic Optimization Solution for Vertical Jumping in Three Dimensions. Computer Methods in Biomechanics and Biomedical Engineering, 1999, 2, 201-231.	1.6	447
5	Individual muscle contributions to support in normal walking. Gait and Posture, 2003, 17, 159-169.	1.4	446
6	An optimal control model for maximum-height human jumping. Journal of Biomechanics, 1990, 23, 1185-1198.	2.1	408
7	Computer Modeling and Simulation of Human Movement. Annual Review of Biomedical Engineering, 2001, 3, 245-273.	12.3	381
8	Muscular strategy shift in human running: dependence of running speed on hip and ankle muscle performance. Journal of Experimental Biology, 2012, 215, 1944-1956.	1.7	369
9	Muscles that support the body also modulate forward progression during walking. Journal of Biomechanics, 2006, 39, 2623-2630.	2.1	281
10	Contributions of muscles, ligaments, and the ground-reaction force to tibiofemoral joint loading during normal gait. Journal of Orthopaedic Research, 2006, 24, 1983-1990.	2.3	279
11	Muscle and Joint Function in Human Locomotion. Annual Review of Biomedical Engineering, 2010, 12, 401-433.	12.3	268
12	Optimal muscular coordination strategies for jumping. Journal of Biomechanics, 1991, 24, 1-10.	2.1	267
13	Effect of Running Speed on Lower Limb Joint Kinetics. Medicine and Science in Sports and Exercise, 2011, 43, 1260-1271.	0.4	261
14	Mechanics of the Human Hamstring Muscles during Sprinting. Medicine and Science in Sports and Exercise, 2012, 44, 647-658.	0.4	244
15	Pattern of anterior cruciate ligament force in normal walking. Journal of Biomechanics, 2004, 37, 797-805.	2.1	235
16	Storage and utilization of elastic strain energy during jumping. Journal of Biomechanics, 1993, 26, 1413-1427.	2.1	218
17	Subject-specific knee joint geometry improves predictions of medial tibiofemoral contact forces. Journal of Biomechanics, 2013, 46, 2778-2786.	2.1	216
18	Muscle, Ligament, and Joint-Contact Forces at the Knee during Walking. Medicine and Science in Sports and Exercise, 2005, 37, 1948-1956.	0.4	208

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19	Effect of posterior tibial slope on knee biomechanics during functional activity. Journal of Orthopaedic Research, 2011, 29, 223-231.	2.3	202
20	Musculoskeletal Model of the Upper Limb Based on the Visible Human Male Dataset. Computer Methods in Biomechanics and Biomedical Engineering, 2001, 4, 93-126.	1.6	201
21	Physical activity when young provides lifelong benefits to cortical bone size and strength in men. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 5337-5342.	7.1	197
22	Dependence of cruciate-ligament loading on muscle forces and external load. Journal of Biomechanics, 1997, 30, 1015-1024.	2.1	195
23	Non-invasive assessment of soft-tissue artifact and its effect on knee joint kinematics during functional activity. Journal of Biomechanics, 2010, 43, 1292-1301.	2.1	185
24	Muscular contributions to hip and knee extension during the single limb stance phase of normal gait: a framework for investigating the causes of crouch gait. Journal of Biomechanics, 2005, 38, 2181-2189.	2.1	176
25	A musculoskeletal model of the knee for evaluating ligament forces during isometric contractions. Journal of Biomechanics, 1997, 30, 163-176.	2.1	175
26	Model Prediction of Anterior Cruciate Ligament Force during Drop-Landings. Medicine and Science in Sports and Exercise, 2004, 36, 1949-1958.	0.4	175
27	Muscle coordination of mediolateral balance in normal walking. Journal of Biomechanics, 2010, 43, 2055-2064.	2.1	174
28	Moment arm of the patellar tendon in the human knee. Journal of Biomechanics, 2004, 37, 785-788.	2.1	173
29	Estimation of Musculotendon Properties in the Human Upper Limb. Annals of Biomedical Engineering, 2003, 31, 207-220.	2.5	172
30	Biomechanical response to hamstring muscle strain injury. Gait and Posture, 2009, 29, 332-338.	1.4	172
31	Evaluation of predicted kneeâ€joint muscle forces during gait using an instrumented knee implant. Journal of Orthopaedic Research, 2009, 27, 1326-1331.	2.3	156
32	A phenomenological model for estimating metabolic energy consumption in muscle contraction. Journal of Biomechanics, 2004, 37, 81-88.	2.1	151
33	The Obstacle-Set Method for Representing Muscle Paths in Musculoskeletal Models. Computer Methods in Biomechanics and Biomedical Engineering, 2000, 3, 1-30.	1.6	150
34	Muscles that influence knee flexion velocity in double support: implications for stiff-knee gait. Journal of Biomechanics, 2004, 37, 1189-1196.	2.1	149
35	Moment arms of the muscles crossing the anatomical shoulder. Journal of Anatomy, 2008, 213, 383-390.	1.5	149
36	In vivo behavior of the human soleus muscle with increasing walking and running speeds. Journal of Applied Physiology, 2015, 118, 1266-1275.	2.5	147

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37	Moment Arms of the Shoulder Musculature After Reverse Total Shoulder Arthroplasty. Journal of Bone and Joint Surgery - Series A, 2010, 92, 1221-1230.	3.0	146
38	Sensitivity of model predictions of muscle function to changes in moment arms and muscleâ€“tendon properties: A Monte-Carlo analysis. Journal of Biomechanics, 2012, 45, 1463-1471.	2.1	144
39	Simultaneous prediction of muscle and contact forces in the knee during gait. Journal of Biomechanics, 2010, 43, 945-952.	2.1	137
40	Contributions of individual muscles to hip joint contact force in normal walking. Journal of Biomechanics, 2010, 43, 1618-1622.	2.1	126
41	Sensitivity of muscle force estimates to variations in muscleâ€“tendon properties. Human Movement Science, 2007, 26, 306-319.	1.4	123
42	Determinants of cruciate-ligament loading during rehabilitation exercise. Clinical Biomechanics, 1998, 13, 403-413.	1.2	105
43	Contributions of muscle forces and toe-off kinematics to peak knee flexion during the swing phase of normal gait: an induced position analysis. Journal of Biomechanics, 2004, 37, 731-737.	2.1	105
44	Contributions of the Individual Muscles of the Shoulder to Glenohumeral Joint Stability During Abduction. Journal of Biomechanical Engineering, 2008, 130, 021024.	1.3	105
45	Tendon elastic strain energy in the human ankle plantar-flexors and its role with increased running speed. Journal of Experimental Biology, 2014, 217, 3159-68.	1.7	105
46	Comparison of shear forces and ligament loading in the healthy and ACL-deficient knee during gait. Journal of Biomechanics, 2004, 37, 313-319.	2.1	98
47	A neuromusculoskeletal tracking method for estimating individual muscle forces in human movement. Journal of Biomechanics, 2007, 40, 356-366.	2.1	97
48	Lines of action and stabilizing potential of the shoulder musculature. Journal of Anatomy, 2009, 215, 184-197.	1.5	96
49	Lower-Limb Muscular Strategies for Increasing Running Speed. Journal of Orthopaedic and Sports Physical Therapy, 2014, 44, 813-824.	3.5	96
50	Accuracy of generic musculoskeletal models in predicting the functional roles of muscles in human gait. Journal of Biomechanics, 2011, 44, 2096-2105.	2.1	92
51	A Three-Dimensional Musculoskeletal Model of the Human Knee Joint. Part 1: Theoretical Construction. Computer Methods in Biomechanics and Biomedical Engineering, 1997, 1, 87-108.	1.6	88
52	Relationship between muscle forces, joint loading and utilization of elastic strain energy in equine locomotion. Journal of Experimental Biology, 2010, 213, 3998-4009.	1.7	88
53	Evaluation of a subject-specific finite-element model of the equine metacarpophalangeal joint under physiological load. Journal of Biomechanics, 2014, 47, 65-73.	2.1	85
54	A numerical method for simulating the dynamics of human walking. Journal of Biomechanics, 1988, 21, 1043-1051.	2.1	84

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55	Mechanical properties of normal and osteoarthritic human articular cartilage. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 61, 96-109.	3.1	83
56	Effects of foot orthoses and valgus bracing on the knee adduction moment and medial joint load during gait. Clinical Biomechanics, 2008, 23, 814-821.	1.2	80
57	Comparison of different methods for estimating muscle forces in human movement. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2012, 226, 103-112.	1.8	79
58	A Kinematic Model of the Upper Limb Based on the Visible Human Project (VHP) Image Dataset. Computer Methods in Biomechanics and Biomedical Engineering, 1999, 2, 107-124.	1.6	77
59	Axial Rotation Moment Arms of the Shoulder Musculature After Reverse Total Shoulder Arthroplasty. Journal of Bone and Joint Surgery - Series A, 2012, 94, 1886-1895.	3.0	74
60	Hamstring muscle forces prior to and immediately following an acute sprinting-related muscle strain injury. Gait and Posture, 2010, 32, 136-140.	1.4	72
61	4 Moment A r m of a Muscle Force. Exercise and Sport Sciences Reviews, 1999, 27, 79???118.	3.0	69
62	Modulation of work and power by the human lower-limb joints with increasing steady-state locomotion speed. Journal of Experimental Biology, 2015, 218, 2472-81.	1.7	66
63	Moment arms of the shoulder muscles during axial rotation. Journal of Orthopaedic Research, 2011, 29, 658-667.	2.3	65
64	Standardization proposal of soft tissue artefact description for data sharing in human motion measurements. Journal of Biomechanics, 2017, 62, 5-13.	2.1	65
65	A Dynamic Model of the Knee and Lower Limb for Simulating Rising Movements. Computer Methods in Biomechanics and Biomedical Engineering, 2002, 5, 149-159.	1.6	64
66	Effect of Muscle Compensation on Knee Instability during ACL-Deficient Gait. Medicine and Science in Sports and Exercise, 2005, 37, 642-648.	0.4	63
67	Threeâ€dimensional motion of the kneeâ€joint complex during normal walking revealed by mobile biplane xâ€ray imaging. Journal of Orthopaedic Research, 2019, 37, 615-630.	2.3	63
68	Muscle and jointâ€contact loading at the glenohumeral joint after reverse total shoulder arthroplasty. Journal of Orthopaedic Research, 2011, 29, 1850-1858.	2.3	60
69	Patellofemoral Joint Loading During Stair Ambulation in People With Patellofemoral Osteoarthritis. Arthritis and Rheumatism, 2013, 65, 2059-2069.	6.7	60
70	Effects of step length and step frequency on lower-limb muscle function in human gait. Journal of Biomechanics, 2017, 57, 1-7.	2.1	60
71	The effect of gait modification on the external knee adduction moment is reference frame dependent. Clinical Biomechanics, 2008, 23, 601-608.	1.2	59
72	Quadriceps volumes are reduced in people with patellofemoral joint osteoarthritis. Osteoarthritis and Cartilage, 2012, 20, 863-868.	1.3	59

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73	Mobile Biplane X-Ray Imaging System for Measuring 3D Dynamic Joint Motion During Overground Gait. IEEE Transactions on Medical Imaging, 2016, 35, 326-336.	8.9	57
74	Assessing Adaptive Expertise in Undergraduate Biomechanics. Journal of Engineering Education, 2004, 93, 211-222.	3.0	56
75	Integrating modelling and experiments to assess dynamic musculoskeletal function in humans. Experimental Physiology, 2006, 91, 371-382.	2.0	56
76	Exercise, education, manual-therapy and taping compared to education for patellofemoral osteoarthritis: a blinded, randomised clinical trial. Osteoarthritis and Cartilage, 2015, 23, 1457-1464.	1.3	56
77	Estimates of muscle function in human gait depend on how foot-ground contact is modelled. Computer Methods in Biomechanics and Biomedical Engineering, 2012, 15, 657-668.	1.6	55
78	Direct Methods for Predicting Movement Biomechanics Based Upon Optimal Control Theory with Implementation in OpenSim. Annals of Biomedical Engineering, 2016, 44, 2542-2557.	2.5	55
79	Three-dimensional data-tracking dynamic optimization simulations of human locomotion generated by direct collocation. Journal of Biomechanics, 2017, 59, 1-8.	2.1	54
80	Predictive Simulations of Neuromuscular Coordination and Joint-Contact Loading in Human Gait. Annals of Biomedical Engineering, 2018, 46, 1216-1227.	2.5	54
81	Mechanical Loading of the Femoral Neck in Human Locomotion. Journal of Bone and Mineral Research, 2018, 33, 1999-2006.	2.8	53
82	Architectural properties of distal forelimb muscles in horses,Equus caballus. Journal of Morphology, 2003, 258, 106-114.	1.2	52
83	Force- and moment-generating capacities of muscles in the distal forelimb of the horse. Journal of Anatomy, 2003, 203, 101-113.	1.5	52
84	Muscles that do not cross the knee contribute to the knee adduction moment and tibiofemoral compartment loading during gait. Journal of Orthopaedic Research, 2012, 30, 1586-1595.	2.3	52
85	Stretch and activation of the human biarticular hamstrings across a range of running speeds. European Journal of Applied Physiology, 2013, 113, 2813-2828.	2.5	52
86	Muscle coordination of support, progression and balance during stair ambulation. Journal of Biomechanics, 2015, 48, 340-347.	2.1	51
87	Effect of hamstrings muscle action on stability of the ACL-deficient knee in isokinetic extension exercise. Clinical Biomechanics, 2002, 17, 705-712.	1.2	49
88	A computationally efficient method for assessing muscle function during human locomotion. International Journal for Numerical Methods in Biomedical Engineering, 2011, 27, 436-449.	2.1	49
89	Synthesis of human walking: A planar model for single support. Journal of Biomechanics, 1988, 21, 1053-1060.	2.1	48
90	Differences in the degree of bone tissue mineralization account for little of the differences in tissue elastic properties. Bone, 2011, 48, 1246-1251.	2.9	48

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91	Strain energy in the femoral neck during exercise. Journal of Biomechanics, 2014, 47, 1784-1791.	2.1	48
92	Moment arms about the carpal and metacarpophalangeal joints for flexor and extensor muscles in equine forelimbs. American Journal of Veterinary Research, 2003, 64, 351-357.	0.6	47
93	Muscle function during gait is invariant to age when walking speed is controlled. Gait and Posture, 2013, 38, 253-259.	1.4	47
94	Trunk muscle action compensates for reduced quadriceps force during walking after total knee arthroplasty. Gait and Posture, 2013, 38, 79-85.	1.4	47
95	Simple and complex models for studying muscle function in walking. Philosophical Transactions of the Royal Society B: Biological Sciences, 2003, 358, 1501-1509.	4.0	46
96	Forelimb muscle activity during equine locomotion. Journal of Experimental Biology, 2012, 215, 2980-2991.	1.7	45
97	Differences in in vivo muscle fascicle and tendinous tissue behavior between the ankle plantarflexors during running. Scandinavian Journal of Medicine and Science in Sports, 2018, 28, 1828-1836.	2.9	44
98	A massâ€“length scaling law for modeling muscle strength in the lower limb. Journal of Biomechanics, 2011, 44, 2782-2789.	2.1	42
99	Comparison of posteriorâ€stabilized, cruciateâ€retaining, and medialâ€stabilized knee implant motion during gait. Journal of Orthopaedic Research, 2020, 38, 1753-1768.	2.3	42
100	Quantitative evaluation of the major determinants of human gait. Journal of Biomechanics, 2014, 47, 1324-1331.	2.1	41
101	Targeted physiotherapy for patellofemoral joint osteoarthritis: A protocol for a randomised, single-blind controlled trial. BMC Musculoskeletal Disorders, 2008, 9, 122.	1.9	39
102	Altered hip muscle forces during gait in people with patellofemoral osteoarthritis. Osteoarthritis and Cartilage, 2012, 20, 1243-1249.	1.3	39
103	A non-invasive, 3D, dynamic MRI method for measuring muscle moment arms in vivo: Demonstration in the human ankle joint and Achilles tendon. Medical Engineering and Physics, 2015, 37, 93-99.	1.7	39
104	Quantitative assessment of gait determinants during single stance via a three-dimensional modelâ€”Part 1. Normal gait. Journal of Biomechanics, 1989, 22, 717-724.	2.1	38
105	Hip- and patellofemoral-joint loading during gait are increased in children with idiopathic torsional deformities. Gait and Posture, 2018, 63, 228-235.	1.4	37
106	Shoulder muscle function depends on elbow joint position: An illustration of dynamic coupling in the upper limb. Journal of Biomechanics, 2011, 44, 1859-1868.	2.1	36
107	Human ankle plantar flexor muscleâ€“tendon mechanics and energetics during maximum acceleration sprinting. Journal of the Royal Society Interface, 2016, 13, 20160391.	3.4	36
108	Measurement of structural anisotropy in femoral trabecular bone using clinical-resolution CT images. Journal of Biomechanics, 2013, 46, 2659-2666.	2.1	34

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109	Androgen deprivation causes selective deficits in the biomechanical leg muscle function of men during walking: a prospective caseâ€“control study. Journal of Cachexia, Sarcopenia and Muscle, 2017, 8, 102-112.	7.3	34
110	In vivo sixâ€degreeâ€ofâ€freedom kneeâ€joint kinematics in overground and treadmill walking following total knee arthroplasty. Journal of Orthopaedic Research, 2017, 35, 1634-1643.	2.3	34
111	How muscles maximize performance in accelerated sprinting. Scandinavian Journal of Medicine and Science in Sports, 2021, 31, 1882-1896.	2.9	34
112	Can a clinical test of hamstring strength identify football players at risk of hamstring strain?. Knee Surgery, Sports Traumatology, Arthroscopy, 2011, 19, 38-41.	4.2	33
113	A Three-Dimensional Musculoskeletal Model of the Human Knee Joint. Part 2: Analysis of Ligament Function. Computer Methods in Biomechanics and Biomedical Engineering, 1998, 1, 265-283.	1.6	32
114	Influence of Muscle-Tendon Wrapping on Calculations of Joint Reaction Forces in the Equine Distal Forelimb. Journal of Biomedicine and Biotechnology, 2008, 2008, 1-9.	3.0	32
115	Are Knee Biomechanics Different in Those With and Without Patellofemoral Osteoarthritis After Anterior Cruciate Ligament Reconstruction?. Arthritis Care and Research, 2014, 66, 1566-1570.	3.4	31
116	Moment arms of the human neck muscles in flexion, bending and rotation. Journal of Biomechanics, 2011, 44, 475-486.	2.1	30
117	Method for determining musculotendon parameters in subject-specific musculoskeletal models of children developed from MRI data. Multibody System Dynamics, 2012, 28, 143-156.	2.7	30
118	Assessment of Transverse Isotropy in Clinical-Level CT Images of Trabecular Bone Using the Gradient Structure Tensor. Annals of Biomedical Engineering, 2014, 42, 950-959.	2.5	29
119	Subject-specific evaluation of patellofemoral joint biomechanics during functional activity. Medical Engineering and Physics, 2014, 36, 1122-1133.	1.7	27
120	Femoroacetabular impingement and hip OsteoaRthritis Cohort (FORCe): protocol for a prospective study. Journal of Physiotherapy, 2018, 64, 55.	1.7	27
121	Potential of lower-limb muscles to accelerate the body during cerebral palsy gait. Gait and Posture, 2012, 36, 194-200.	1.4	25
122	Quantitative assessment of gait determinants during single stance via a three-dimensional modelâ€”Part 2. Pathological gait. Journal of Biomechanics, 1989, 22, 725-733.	2.1	24
123	Dynamic Simulation of Human Movement Using Large-Scale Models of the Body. Phonetica, 2000, 57, 219-228.	0.6	22
124	Forward-dynamics Simulation of Anterior Cruciate Ligament Forces Developed During Isokinetic Dynamometry. Computer Methods in Biomechanics and Biomedical Engineering, 2002, 5, 33-43.	1.6	22
125	Sensitivity of femoral strain calculations to anatomical scaling errors in musculoskeletal models of movement. Journal of Biomechanics, 2015, 48, 3606-3615.	2.1	22
126	Mechanical loading of the distal end of the third metacarpal bone in horses during walking and trotting. American Journal of Veterinary Research, 2010, 71, 508-514.	0.6	21

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127	The heterogeneity in femoral neck structure and strength. Journal of Bone and Mineral Research, 2013, 28, 1022-1028.	2.8	21
128	Variation of neck muscle strength along the human cervical spine. Stapp Car Crash Journal, 2004, 48, 397-417.	1.1	19
129	Theoretical analysis of ligament and extensor-mechanism function in the ACL-deficient knee. Clinical Biomechanics, 1998, 13, 98-111.	1.2	18
130	Contribution of tibiofemoral joint contact to net loads at the knee in gait. Journal of Orthopaedic Research, 2015, 33, 1054-1060.	2.3	18
131	Application of ultrasound imaging to subject-specific modelling of the human musculoskeletal system. Meccanica, 2017, 52, 665-676.	2.0	18
132	Lower-limb joint mechanics during maximum acceleration sprinting. Journal of Experimental Biology, 2019, 222, .	1.7	18
133	A Randomized Controlled Trial Comparing a Medial Stabilized Total Knee Prosthesis to a Cruciate Retaining and Posterior Stabilized Design: A Report of the Clinical and Functional Outcomes Following Total Knee Replacement. Journal of Arthroplasty, 2020, 35, 1583-1590.e2.	3.1	18
134	Effect of muscle wrapping on model estimates of neck muscle strength. Computer Methods in Biomechanics and Biomedical Engineering, 2006, 9, 343-352.	1.6	17
135	Muscular strategy shift in human running: dependence of running speed on hip and ankle muscle performance. Journal of Experimental Biology, 2012, 215, 2347-2347.	1.7	17
136	Musculoskeletal loading in the symptomatic and asymptomatic knees of middleâ€aged osteoarthritis patients. Journal of Orthopaedic Research, 2017, 35, 321-330.	2.3	16
137	Load Distribution at the Patellofemoral Joint During Walking. Annals of Biomedical Engineering, 2020, 48, 2821-2835.	2.5	16
138	Pelvic and Hip Kinematics During Walking in People With Patellofemoral Joint Osteoarthritis Compared to Healthy Ageâ€Matched Controls. Arthritis Care and Research, 2018, 70, 309-314.	3.4	15
139	Model predictions of increased knee joint loading in regions of thinner articular cartilage after patellar tendon adhesion. Journal of Orthopaedic Research, 2011, 29, 1168-1177.	2.3	14
140	Accuracy of mobile biplane X-ray imaging in measuring 6-degree-of-freedom patellofemoral kinematics during overground gait. Journal of Biomechanics, 2017, 57, 152-156.	2.1	14
141	A novel training-free method for real-time prediction of femoral strain. Journal of Biomechanics, 2019, 86, 110-116.	2.1	14
142	The relationship between tibiofemoral geometry and musculoskeletal function during normal activity. Gait and Posture, 2020, 80, 374-382.	1.4	14
143	Six-Degree-of-Freedom Tibiofemoral and Patellofemoral Joint Motion During Activities of Daily Living. Annals of Biomedical Engineering, 2021, 49, 1183-1198.	2.5	14
144	Measuring Femoral Torsion InÂVivo Using Freehand 3-D Ultrasound Imaging. Ultrasound in Medicine and Biology, 2016, 42, 619-623.	1.5	13

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145	A Systematic Review of Clinical Functional Outcomes After Medial StabilizedÂVersus Non-Medial Stabilized Total Knee Joint Replacement. Frontiers in Surgery, 2018, 5, 25.	1.4	13
146	Hip abductor muscle volumes are smaller in individuals affected by patellofemoral joint osteoarthritis. Osteoarthritis and Cartilage, 2019, 27, 266-272.	1.3	13
147	Efficacy and efficiency of multivariate linear regression for rapid prediction of femoral strain fields during activity. Medical Engineering and Physics, 2019, 63, 88-92.	1.7	12
148	Direct Validation of Human Knee-Joint Contact Mechanics Derived From Subject-Specific Finite-Element Models of the Tibiofemoral and Patellofemoral Joints. Journal of Biomechanical Engineering, 2020, 142, .	1.3	12
149	On the potential of lower limb muscles to accelerate the body's centre of mass during walking. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 1013-1021.	1.6	11
150	Dynamic simulation of knee-joint loading during gait using force-feedback control and surrogate contact modelling. Medical Engineering and Physics, 2017, 48, 196-205.	1.7	11
151	Rupture of the conjoint tendon at the proximal musculotendinous junction of the biceps femoris long head: a case report. Knee Surgery, Sports Traumatology, Arthroscopy, 2008, 16, 797-802.	4.2	10
152	Immediate effects of foot orthoses on gait biomechanics in individuals with persistent patellofemoral pain. Gait and Posture, 2020, 77, 20-28.	1.4	10
153	A generic musculoskeletal model of the juvenile lower limb for biomechanical analyses of gait. Computer Methods in Biomechanics and Biomedical Engineering, 2020, 24, 1-9.	1.6	10
154	Direct Validation of Model-Predicted Muscle Forces in the Cat Hindlimb During Locomotion. Journal of Biomechanical Engineering, 2020, 142, .	1.3	10
155	An Analytical Framework for Quantifying Muscular Action During Human Movement. , 1990, , 653-662.		9
156	Determination of mechanical loading components of the equine metacarpus from measurements of strain during walking. Equine Veterinary Journal, 2006, 38, 440-444.	1.7	9
157	Is Running Better than Walking for Reducing Hip Joint Loads?. Medicine and Science in Sports and Exercise, 2018, 50, 2301-2310.	0.4	9
158	Athletes Rated as Poor Single-Leg Squat Performers Display Measurable Differences in Single-Leg Squat Biomechanics Compared With Good Performers. Journal of Sport Rehabilitation, 2018, 27, 546-553.	1.0	8
159	Three-dimensional geometry of the human biceps femoris long head measured in vivo using magnetic resonance imaging. Clinical Biomechanics, 2013, 28, 278-284.	1.2	7
160	Selective Loss of Levator Ani and Leg Muscle Volumes in Men Undergoing Androgen Deprivation Therapy. Journal of Clinical Endocrinology and Metabolism, 2019, 104, 2229-2238.	3.6	6
161	Variation of Neck Muscle Strength Along the Human Cervical Spine. , 0, , .		6
162	Multi-Joint Coordination of Vertical Arm Movement. Applied Bionics and Biomechanics, 2003, 1, 45-56.	1.1	5

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163	Articular contact motion at the knee during daily activities. Journal of Orthopaedic Research, 2022, 40, 1756-1769.	2.3	5
164	Lowerâ€limb muscle function during gait in varus malâ€aligned osteoarthritis patients. Journal of Orthopaedic Research, 2018, 36, 2157-2166.	2.3	4
165	Moment arm of the knee-extensor mechanism measured in vivo across a range of daily activities. Journal of Biomechanics, 2021, 123, 110484.	2.1	4
166	Lower-limb muscle function in healthy young and older adults across a range of walking speeds. Gait and Posture, 2022, 94, 124-130.	1.4	4
167	An optimal control model for determining articular contact forces at the human knee during rising from a static squat position. Journal of Mechanical Science and Technology, 1998, 12, 847.	0.4	3
168	Multi-joint coordination of vertical arm movement. Applied Bionics and Biomechanics, 2003, 1, 45-56.	1.1	3
169	A nonlinear tracking method of computing net joint torques for human movement. , 2004, 2004, 4633-6.		3
170	A blinded, three-arm randomised trial assessing joint function and measuring three-dimensional knee joint kinematics in individuals six months after a total knee joint replacement; comparing a medially stabilised design, to standard fixed bearing conventional designs â€“ posterior stabilising and cruciate retaining. International Journal of Clinical Trials, 2018, 5, 37.	0.2	3
171	Calculation of Joint Reaction Forces in the Equine Distal Forelimb during Walking and Trotting. , 2007, , .		2
172	Simultaneous Prediction of Muscle and Contact Forces in the Knee During Gait. , 2009, , .		2
173	Biomechanical Leg Muscle Function During Stair Ambulation in Men Receiving Androgen Deprivation Therapy. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2020, 75, 1715-1722.	3.6	2
174	In Vivo Biomechanical Assessment of a Novel Handle-Based Wheelchair Drive. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1669-1678.	4.9	2
175	Muscle and Contact Contributions to Inverse Dynamic Knee Loads During Gait. , 2009, , .		1
176	Response to comment on â€œContributions of individual muscles to hip joint contact force in normal walking [J. Biomech. 43 (2010) 1618â€“1622]â€• Journal of Biomechanics, 2010, 43, 3070-3071.	2.1	1
177	Lower-Limb Muscle Function in Human Running. Mechanisms and Machine Science, 2013, , 323-327.	0.5	1
178	Moment Arms Of Shoulder Muscles During Movement. Medicine and Science in Sports and Exercise, 2005, 37, S278.	0.4	1
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