Walter Herzog

List of Publications by Year in Descending Order

137 papers	2,881 citations	29 h-index	49 g-index
164 ext. papers	3,582 ext. citations	3.7 avg, IF	6.07 L-index

#	Paper	IF	Citations
137	Hip torques and the effect of posture in side-stepping with elastic resistance.. *Gait and Posture*, **2022**, 93, 119-125	2.6	1
136	Attenuated Lower Limb Stretch-Shorten-Cycle Capacity in ACL Injured vs. Non-Injured Female Alpine Ski Racers: Not Just a Matter of Between-Limb Asymmetry.. *Frontiers in Sports and Active Living*, **2022**, 4, 853701	2.3	1
135	Forecasting neuromuscular recovery after anterior cruciate ligament injury: Athlete recovery profiles with generalized additive modeling.. *Journal of Orthopaedic Research*, **2022**,	3.8	1
134	Effect of cells on spatial quantification of proteoglycans in articular cartilage of small animals.. *Connective Tissue Research*, **2022**, 1-12	3.3	
133	Residual force enhancement is attenuated for quick stretch conditions.. *Journal of Biomechanics*, **2022**, 136, 111076	2.9	0
132	What Can We Learn from Single Sarcomere and Myofibril Preparations?. *Frontiers in Physiology*, **2022**, 13, 837611	4.6	1
131	A musculoskeletal finite element model of rat knee joint for evaluating cartilage biomechanics during gait. *PLoS Computational Biology*, **2022**, 18, e1009398	5	0
130	Moderate aerobic exercise, but not dietary prebiotic fibre, attenuates losses to mechanical property integrity of tail tendons in a rat model of diet-induced obesity. *Journal of Biomechanics*, **2021**, 129, 110798	2.9	
129	Early changes in osteochondral tissues in a rabbit model of post-traumatic osteoarthritis. *Journal of Orthopaedic Research*, **2021**, 39, 2556-2567	3.8	2
128	Electromechanical delay of the hamstrings following semitendinosus tendon autografts in return to competition athletes. *European Journal of Applied Physiology*, **2021**, 121, 1849-1858	3.4	0
127	Automated analysis of rabbit knee calcified cartilage morphology using micro-computed tomography and deep learning. *Journal of Anatomy*, **2021**, 239, 251-263	2.9	2
126	Chondrocyte morphology as an indicator of collagen network integrity. *Connective Tissue Research*, **2021**, 1-10	3.3	0
125	Consumption of a high-fat-high-sucrose diet partly diminishes mechanical and structural adaptations of cardiac muscle following resistance training. *Physical Activity and Nutrition*, **2021**, 25, 8-14	1.4	
124	Contractility of permeabilized rat vastus intermedius muscle fibres following high-fat, high-sucrose diet consumption. *Applied Physiology, Nutrition and Metabolism*, **2021**, 46, 1389-1399	3	1
123	Mechanical function of cardiac fibre bundles is partly protected by exercise in response to diet-induced obesity in rats. *Applied Physiology, Nutrition and Metabolism*, **2021**, 46, 46-54	3	4
122	Contractile history affects sag and boost properties of unfused tetanic contractions in human quadriceps muscles. *European Journal of Applied Physiology*, **2021**, 121, 645-658	3.4	1
121	The stretch-shortening cycle effect is prominent in the inhibited force state. *Journal of Biomechanics*, **2021**, 115, 110136	2.9	2

120	Chondrocyte Deformations Under Mild Dynamic Loading Conditions. *Annals of Biomedical Engineering*, **2021**, 49, 846-857	4.7	2
119	Skeletal Muscle in Cerebral Palsy: From Belly to Myofibril. *Frontiers in Neurology*, **2021**, 12, 620852	4.1	4
118	Increased force following muscle stretching and simultaneous fibre shortening: Residual force enhancement or force depression - That is the question?. *Journal of Biomechanics*, **2021**, 116, 110216	2.9	2
117	Sarcomere length measurement reliability in single myofibrils. *Journal of Biomechanics*, **2021**, 126, 110628	2.9	1
116	Sarcomere Lengths Become More Uniform Over Time in Intact Muscle-Tendon Unit During Isometric Contractions. *Frontiers in Physiology*, **2020**, 11, 448	4.6	2
115	Machine Learning Classification of Articular Cartilage Integrity Using Near Infrared Spectroscopy. *Cellular and Molecular Bioengineering*, **2020**, 13, 219-228	3.9	12
114	Monitoring the Return to Sport Transition After ACL Injury: An Alpine Ski Racing Case Study. *Frontiers in Sports and Active Living*, **2020**, 2, 12	2.3	11
113	Multiparametric MR imaging reveals early cartilage degeneration at 2 and 8 weeks after ACL transection in a rabbit model. *Journal of Orthopaedic Research*, **2020**, 38, 1974-1986	3.8	4
112	The influence of maximal and submaximal cyclic concentric and eccentric exercise on chondrocyte death and synovial fluid proteins in the rabbit knee. *Clinical Biomechanics*, **2020**, 78, 105095	2.2	
111	The sarcomere force-length relationship in an intact muscle-tendon unit. *Journal of Experimental Biology*, **2020**, 223,	3	10
110	Mechanical adaptations of skinned cardiac muscle in response to dietary-induced obesity during adolescence in rats. *Applied Physiology, Nutrition and Metabolism*, **2020**, 45, 893-901	3	7
109	A Novel Right Ventricular Volume and Pressure Loaded Piglet Heart Model for the Study of Tricuspid Valve Function. *Journal of Visualized Experiments*, **2020**,	1.6	1
108	Chronic uphill and downhill exercise protocols do not lead to sarcomerogenesis in mouse skeletal muscle. *Journal of Biomechanics*, **2020**, 98, 109469	2.9	11
107	Anterior cruciate ligament transection of rabbits alters composition, structure and biomechanics of articular cartilage and chondrocyte deformation 2 weeks post-surgery in a site-specific manner. *Journal of Biomechanics*, **2020**, 98, 109450	2.9	11
106	Differences in stretch-shortening cycle and residual force enhancement between muscles. *Journal of Biomechanics*, **2020**, 112, 110040	2.9	4
105	Prebiotic and Exercise Do Not Alter Knee Osteoarthritis in a Rat Model of Established Obesity. *Cartilage*, **2020**, 1947603520959399	3	8
104	The effects of inorganic phosphate on contractile function of slow skeletal muscle fibres are length-dependent. *Biochemical and Biophysical Research Communications*, **2020**, 533, 818-823	3.4	2
103	Residual and passive force enhancement in skinned cardiac fibre bundles. *Journal of Biomechanics*, **2020**, 109, 109953	2.9	1

102	Effect of cracks on the local deformations of articular cartilage. *Journal of Biomechanics*, **2020**, 110, 109970	2.9	3
101	Cardiac ventricular muscle mechanical properties through the first year of life in Sprague-Dawley rats. *Mechanisms of Ageing and Development*, **2020**, 192, 111359	5.6	1
100	Differences in force-time parameters and electromyographic characteristics of two high-velocity, low-amplitude spinal manipulations following one another in quick succession. *Chiropractic & Manual Therapies*, **2020**, 28, 67	1.8	1
99	Why do muscles lose torque potential when activated within their agonistic group?. *Journal of Experimental Biology*, **2020**, 223,	3	2
98	Evidence for Muscle Cell-Based Mechanisms of Enhanced Performance in Stretch-Shortening Cycle in Skeletal Muscle. *Frontiers in Physiology*, **2020**, 11, 609553	4.6	3
97	Energy Cost of Force Production After a Stretch-Shortening Cycle in Skinned Muscle Fibers: Does Muscle Efficiency Increase?. *Frontiers in Physiology*, **2020**, 11, 567538	4.6	0
96	Influence of stretch magnitude on the stretch-shortening cycle in skinned muscle fibres. *Journal of Experimental Biology*, **2019**, 222,	3	8
95	Passive force enhancement in striated muscle. *Journal of Applied Physiology*, **2019**, 126, 1782-1789	3.7	13
94	Anterior cruciate ligament transection alters the n-3/n-6 fatty acid balance in the lapine infrapatellar fat pad. *Lipids in Health and Disease*, **2019**, 18, 67	4.4	10
93	Optimal length, calcium sensitivity and twitch characteristics of skeletal muscles from mice with a deletion in N2A titin. *Journal of Experimental Biology*, **2019**, 222,	3	9
92	Effects of macro-cracks on the load bearing capacity of articular cartilage. *Biomechanics and Modeling in Mechanobiology*, **2019**, 18, 1371-1381	3.8	6
91	Effect of strain rate on transient local strain variations in articular cartilage. *Journal of the Mechanical Behavior of Biomedical Materials*, **2019**, 95, 60-66	4.1	11
90	Does stretching velocity affect residual force enhancement?. *Journal of Biomechanics*, **2019**, 89, 143-147	2.9	10
89	Stiffness of hip adductor myofibrils is decreased in children with spastic cerebral palsy. *Journal of Biomechanics*, **2019**, 87, 100-106	2.9	6
88	Contribution of individual quadriceps muscles to knee joint mechanics. *Journal of Experimental Biology*, **2019**, 222,	3	5
87	Protective effect of prebiotic and exercise intervention on knee health in a rat model of diet-induced obesity. *Scientific Reports*, **2019**, 9, 3893	4.9	58
86	Relationship of muscle morphology to hip displacement in cerebral palsy: a pilot study investigating changes intrinsic to the sarcomere. *Journal of Orthopaedic Surgery and Research*, **2019**, 14, 187	2.8	6
85	Triceps Surae Muscle Architecture Adaptations to Eccentric Training. *Frontiers in Physiology*, **2019**, 10, 1456	4.6	12

84	Force depression following a stretch-shortening cycle depends on the amount of residual force enhancement established in the initial stretch phase. *Physiological Reports*, **2019**, 7, e14188	2.6	3
83	Contribution of the Achilles tendon to force potentiation in a stretch-shortening cycle. *Journal of Experimental Biology*, **2019**, 222,	3	1
82	Current Understanding of Residual Force Enhancement: Cross-Bridge Component and Non-Cross-Bridge Component. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	11
81	Reflex Responses of Neck, Back, and Limb Muscles to High-Velocity, Low-Amplitude Manual Cervical and Upper Thoracic Spinal Manipulation of Asymptomatic Individuals-A Descriptive Study. *Journal of Manipulative and Physiological Therapeutics*, **2019**, 42, 572-581	1.3	2
80	The problem with skeletal muscle series elasticity. *BMC Biomedical Engineering*, **2019**, 1, 28	4.3	9
79	On sarcomere length stability during isometric contractions before and after active stretching. *Journal of Experimental Biology*, **2019**, 222,	3	7
78	Functional properties of chondrocytes and articular cartilage using optical imaging to scanning probe microscopy. *Journal of Orthopaedic Research*, **2018**, 36, 620-631	3.8	9
77	The sag response in human muscle contraction. *European Journal of Applied Physiology*, **2018**, 118, 1063-1077	3.4	4
76	Residual Force Enhancement Is Preserved for Conditions of Reduced Contractile Force. *Medicine and Science in Sports and Exercise*, **2018**, 50, 1186-1191	1.2	8
75	Force depression following a stretch-shortening cycle is independent of stretch peak force and work performed during shortening. *Scientific Reports*, **2018**, 8, 1534	4.9	13
74	The multiple roles of titin in muscle contraction and force production. *Biophysical Reviews*, **2018**, 10, 1187-1199	3.7	45
73	Three-dimensional micro-scale strain mapping in living biological soft tissues. *Acta Biomaterialia*, **2018**, 70, 260-269	10.8	7
72	Diet-induced obesity leads to pro-inflammatory alterations to the vitreous humour of the eye in a rat model. *Inflammation Research*, **2018**, 67, 139-146	7.2	16
71	Alteration of Strain Distribution in Distal Tibia After Triple Arthrodesis: Experimental and Finite Element Investigations. *Journal of Medical and Biological Engineering*, **2018**, 38, 469-481	2.2	1
70	A compression system for studying depth-dependent mechanical properties of articular cartilage under dynamic loading conditions. *Medical Engineering and Physics*, **2018**, 60, 103-108	2.4	8
69	Obesity, Metabolic Syndrome, and Musculoskeletal Disease: Common Inflammatory Pathways Suggest a Central Role for Loss of Muscle Integrity. *Frontiers in Physiology*, **2018**, 9, 112	4.6	113
68	Quantifying the Effects of Different Treadmill Training Speeds and Durations on the Health of Rat Knee Joints. *Sports Medicine - Open*, **2018**, 4, 15	6.1	11
67	Single sarcomere contraction dynamics in a whole muscle. *Scientific Reports*, **2018**, 8, 15235	4.9	19

66	The mechanics of agonistic muscles. *Journal of Biomechanics*, **2018**, 79, 15-20	2.9	11
65	Iterative and discrete reconstruction in the evaluation of the rabbit model of osteoarthritis. *Scientific Reports*, **2018**, 8, 12051	4.9	4
64	Residual Force Enhancement Is Attenuated in a Shortening Magnitude-dependent Manner. *Medicine and Science in Sports and Exercise*, **2018**, 50, 2007-2014	1.2	10
63	Why are muscles strong, and why do they require little energy in eccentric action?. *Journal of Sport and Health Science*, **2018**, 7, 255-264	8.2	19
62	Mitigating the bilateral deficit: reducing neural deficits through residual force enhancement and activation reduction. *European Journal of Applied Physiology*, **2018**, 118, 1911-1919	3.4	3
61	Unfolding of membrane ruffles of in situ chondrocytes under compressive loads. *Journal of Orthopaedic Research*, **2017**, 35, 304-310	3.8	10
60	An optimal control solution to the predictive dynamics of cycling. *Sport Sciences for Health*, **2017**, 13, 381-393	1.3	5
59	Energy cost of isometric force production after active shortening in skinned muscle fibres. *Journal of Experimental Biology*, **2017**, 220, 1509-1515	3	22
58	Orthotropic hydraulic permeability of arrays of parallel cylinders. *Physical Review E*, **2017**, 96, 033112	2.4	3
57	In vivo muscle force and muscle power during near-maximal frog jumps. *PLoS ONE*, **2017**, 12, e0173415	3.7	17
56	Skeletal muscle mechanics, energetics and plasticity. *Journal of NeuroEngineering and Rehabilitation* , **2017**, 14, 108	5.3	61
55	Shortening-induced force depression is modulated in a time- and speed-dependent manner following a stretch-shortening cycle. *Physiological Reports*, **2017**, 5, e13279	2.6	22
54	Titin force enhancement following active stretch of skinned skeletal muscle fibres. *Journal of Experimental Biology*, **2017**, 220, 3110-3118	3	15
53	Nonlocalized postactivation performance enhancement (PAPE) effects in trained athletes: a pilot study. *Applied Physiology, Nutrition and Metabolism*, **2017**, 42, 1122-1125	3	39
52	Skeletal muscle mechanics: questions, problems and possible solutions. *Journal of NeuroEngineering and Rehabilitation*, **2017**, 14, 98	5.3	21
51	Sarcomere Lengths Become More Non-uniform upon Activation in Intact Whole Muscle. *Frontiers in Physiology*, **2017**, 8, 1015	4.6	24
50	Reduced knee adduction moments for management of knee osteoarthritis:: A three month phase I/II randomized controlled trial. *Gait and Posture*, **2016**, 50, 60-68	2.6	13
49	Residual force enhancement following shortening is speed-dependent. *Scientific Reports*, **2016**, 5, 21513	4.9	11

48	Letter to the editor: Comments on Cornachione et al. (2016): "The increase in non-cross-bridge forces after stretch of activated striated muscle is related to titin isoforms". *American Journal of Physiology - Cell Physiology*, **2016**, 311, C158-9	5.4	5
47	Reduction in single muscle fiber rate of force development with aging is not attenuated in world class older masters athletes. *American Journal of Physiology - Cell Physiology*, **2016**, 310, C318-27	5.4	32
46	History dependence of the electromyogram: Implications for isometric steady-state EMG parameters following a lengthening or shortening contraction. *Journal of Electromyography and Kinesiology*, **2016**, 27, 30-8	2.5	33
45	Decreased force enhancement in skeletal muscle sarcomeres with a deletion in titin. *Journal of Experimental Biology*, **2016**, 219, 1311-6	3	40
44	In Vivo Dynamic Deformation of Articular Cartilage in Intact Joints Loaded by Controlled Muscular Contractions. *PLoS ONE*, **2016**, 11, e0147547	3.7	17
43	In vivo Sarcomere Lengths and Sarcomere Elongations Are Not Uniform across an Intact Muscle. *Frontiers in Physiology*, **2016**, 7, 187	4.6	53
42	Age-related maintenance of eccentric strength: a study of temperature dependence. *Age*, **2016**, 38, 43		3
41	The role of sarcomere length non-uniformities in residual force enhancement of skeletal muscle myofibrils. *Royal Society Open Science*, **2016**, 3, 150657	3.3	27
40	Finite element modeling of finite deformable, biphasic biological tissues with transversely isotropic statistically distributed fibers: toward a practical solution. *Zeitschrift Fur Angewandte Mathematik Und Physik*, **2016**, 67, 1	1.6	5
39	Intermittent stretch training of rabbit plantarflexor muscles increases soleus mass and serial sarcomere number. *Journal of Applied Physiology*, **2015**, 118, 1467-73	3.7	12
38	Prediction of Stress Shielding Around Orthopedic Screws: Time-Dependent Bone Remodeling Analysis Using Finite Element Approach. *Journal of Medical and Biological Engineering*, **2015**, 35, 545-554	2.2	14
37	Internal Carotid Artery Strains During High-Speed, Low-Amplitude Spinal Manipulations of the Neck. *Journal of Manipulative and Physiological Therapeutics*, **2015**, 38, 664-671	1.3	13
36	Muscle strategies for leg extensions on a "Reformer" apparatus. *Journal of Electromyography and Kinesiology*, **2015**, 25, 260-4	2.5	3
35	Eccentric resistance training of the knee extensor muscle: Training programs and neuromuscular adaptations. *Isokinetics and Exercise Science*, **2015**, 23, 183-198	0.6	13
34	A novel three-filament model of force generation in eccentric contraction of skeletal muscles. *PLoS ONE*, **2015**, 10, e0117634	3.7	67
33	A new paradigm for muscle contraction. *Frontiers in Physiology*, **2015**, 6, 174	4.6	62
32	Cartilage and chondrocyte response to extreme muscular loading and impact loading: Can in vivo pre-load decrease impact-induced cell death?. *Clinical Biomechanics*, **2015**, 30, 537-45	2.2	6
31	The stretch-shortening cycle (SSC) revisited: residual force enhancement contributes to increased performance during fast SSCs of human m. adductor pollicis. *Physiological Reports*, **2015**, 3, e12401	2.6	52

30	Decay of force transients following active stretch is slower in older than young men: support for a structural mechanism contributing to residual force enhancement in old age. *Journal of Biomechanics*, **2014**, 47, 3423-7	2.9	11
29	Titin force is enhanced in actively stretched skeletal muscle. *Journal of Experimental Biology*, **2014**, 217, 3629-36	3	70
28	The role of titin in eccentric muscle contraction. *Journal of Experimental Biology*, **2014**, 217, 2825-33	3	59
27	Alterations in patellofemoral kinematics following vastus medialis transection in the anterior cruciate ligament deficient rabbit knee. *Clinical Biomechanics*, **2014**, 29, 577-82	2.2	5
26	Shortening-induced torque depression in old men: implications for age-related power loss. *Experimental Gerontology*, **2014**, 57, 75-80	4.5	27
25	Mechanisms of enhanced force production in lengthening (eccentric) muscle contractions. *Journal of Applied Physiology*, **2014**, 116, 1407-17	3.7	103
24	Extracellular matrix integrity affects the mechanical behaviour of in-situ chondrocytes under compression. *Journal of Biomechanics*, **2014**, 47, 1004-13	2.9	24
23	Altered mechanical properties of titin immunoglobulin domain 27 in the presence of calcium. *European Biophysics Journal*, **2013**, 42, 301-7	1.9	43
22	Running injuries: is it a question of evolution, form, tissue properties, mileage, or shoes?. *Exercise and Sport Sciences Reviews*, **2012**, 40, 59-60	6.7	5
21	An alternative finite element model for simulation of frictional gap. *Journal of Mechanical Science and Technology*, **2011**, 25, 3099-3105	1.6	4
20	The biomechanics of spinal manipulation. *Journal of Bodywork and Movement Therapies*, **2010**, 14, 280-6	1.6	109
19	Small-Sample Robust Estimators of Noncentrality-Based and Incremental Model Fit. *Structural Equation Modeling*, **2009**, 16, 1-27	3.7	102
18	Brand-Specific Leadership: Turning Employees into Brand Champions. *Journal of Marketing*, **2009**, 73, 122-142	11	388
17	THE EFFECTS OF PARALLEL AND SERIES ELASTIC COMPONENTS ON THE ACTIVE CAT SOLEUS FORCE-LENGTH RELATIONSHIP. *Journal of Mechanics in Medicine and Biology*, **2009**, 09, 105-122	0.7	37
16	Does residual force enhancement increase with increasing stretch magnitudes?. *Journal of Biomechanics*, **2009**, 42, 1488-1492	2.9	33
15	Mysteries of muscle contraction. *Journal of Applied Biomechanics*, **2008**, 24, 1-13	1.2	47
14	Joint Mechanics in Osteoarthritis. *Novartis Foundation Symposium*, **2008**, 79-99		6
13	Convex Fung-type potentials for biological tissues. *Meccanica*, **2008**, 43, 279-288	2.1	24

12	Reply from Walter Herzog (on behalf of the authors) and Tim Leonard. *Journal of Physiology*, **2007**, 578, 617-620	3.9	15
11	The role of muscles in joint degeneration and osteoarthritis. *Journal of Biomechanics*, **2007**, 40 Suppl 1, S54-63	2.9	53
10	The Model-Size Effect on Traditional and Modified Tests of Covariance Structures. *Structural Equation Modeling*, **2007**, 14, 361-390	3.7	82
9	MUSCLE-INDUCED PATELLOFEMORAL JOINT LOADING RAPIDLY AFFECTS CARTILAGE mRNA LEVELS IN A SITE SPECIFIC MANNER. *Journal of Musculoskeletal Research*, **2004**, 08, 1-12	0.1	8
8	History dependence of skeletal muscle force production: implications for movement control. *Human Movement Science*, **2004**, 23, 591-604	2.4	62
7	Joint mechanics in osteoarthritis. *Novartis Foundation Symposium*, **2004**, 260, 79-95; discussion 95-9, 100-4, 277-9		11
6	The effects of training on fatigue and twitch potentiationin human skeletal muscle. *European Journal of Sport Science*, **2001**, 1, 1-8	3.9	9
5	Effect of number of stimuli and timing of twitch application on variability in interpolated twitch torque. *Journal of Applied Physiology*, **2001**, 90, 1036-40	3.7	34
4	Force depression in human quadriceps femoris following voluntary shortening contractions. *Journal of Applied Physiology*, **1999**, 87, 1651-5	3.7	41
3	Excursion is important in regulating sarcomere number in the growing rabbit tibialis anterior. *Journal of Physiology*, **1998**, 508 (Pt 1), 267-80	3.9	56
2	Extent of motor unit activation in the quadriceps muscles of healthy subjects. *Muscle and Nerve*, **1996**, 19, 1046-8	3.4	24
1	Human skeletal muscle fibre types and force: velocity properties. *European Journal of Applied Physiology and Occupational Physiology*, **1993**, 67, 499-506		30