Roger M Enoka

List of Publications by Year
in descending order

102 papers	8,983 citations	61977 43 h-index	46795 89 g-index
105 all docs	105 docs citations	105 times ranked	5870 citing authors

#	Article	IF	Citations
1	Muscle fatigue: what, why and how it influences muscle function. Journal of Physiology, 2008, 586, 11-23.	2.9	847
2	Fatigue and fatigability in neurologic illnesses. Neurology, 2013, 80, 409-416.	1.1	722
3	Translating Fatigue to Human Performance. Medicine and Science in Sports and Exercise, 2016, 48, 2228-2238.	0.4	527
4	The extraction of neural strategies from the surface EMG: an update. Journal of Applied Physiology, 2014, 117, 1215-1230.	2.5	378
5	Discharge Rate Variability Influences the Variation in Force Fluctuations Across the Working Range of a Hand Muscle. Journal of Neurophysiology, 2005, 93, 2449-2459.	1.8	360
6	Motor Unit. , 2012, 2, 2629-2682.		317
7	Motor unit physiology: Some unresolved issues. Muscle and Nerve, 2001, 24, 4-17.	2.2	300
8	Sex differences in the fatigability of arm muscles depends on absolute force during isometric contractions. Journal of Applied Physiology, 2001, 91, 2686-2694.	2.5	285
9	Decoding the neural drive to muscles from the surface electromyogram. Clinical Neurophysiology, 2010, 121, 1616-1623.	1.5	279
10	The increase in muscle force after 4Âweeks of strength training is mediated by adaptations in motor unit recruitment and rate coding. Journal of Physiology, 2019, 597, 1873-1887.	2.9	212
11	Older adults are less steady during submaximal isometric contractions with the knee extensor muscles. Journal of Applied Physiology, 2002, 92, 1004-1012.	2.5	206
12	Practice reduces motor unit discharge variability in a hand muscle and improves manual dexterity in old adults. Journal of Applied Physiology, 2005, 98, 2072-2080.	2.5	185
13	Human motor unit recordings: Origins and insight into the integrated motor system. Brain Research, 2011, 1409, 42-61.	2.2	175
14	Consensus for experimental design in electromyography (CEDE) project: Amplitude normalization matrix. Journal of Electromyography and Kinesiology, 2020, 53, 102438.	1.7	170
15	Task Differences With the Same Load Torque Alter the Endurance Time of Submaximal Fatiguing Contractions in Humans. Journal of Neurophysiology, 2002, 88, 3087-3096.	1.8	155
16	Neural control of lengthening contractions. Journal of Experimental Biology, 2016, 219, 197-204.	1.7	150
17	Principles of Motor Unit Physiology Evolve With Advances in Technology. Physiology, 2016, 31, 83-94.	3.1	147
18	Coactivation of the antagonist muscle does not covary with steadiness in old adults. Journal of Applied Physiology, 2000, 89, 61-71.	2.5	144

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19	Morphological Features and Activation Patterns of Motor Units. Journal of Clinical Neurophysiology, 1995, 12, 538-559.	1.7	137
20	Motor-Unit Activity Differs With Load Type During a Fatiguing Contraction. Journal of Neurophysiology, 2005, 93, 1381-1392.	1.8	136
21	Unraveling the neurophysiology of muscle fatigue. Journal of Electromyography and Kinesiology, 2011, 21, 208-219.	1.7	135
22	Strength training improves the steadiness of slow lengthening contractions performed by old adults. Journal of Applied Physiology, 1999, 87, 1786-1795.	2.5	126
23	Motor unit recruitment strategies and muscle properties determine the influence of synaptic noise on force steadiness. Journal of Neurophysiology, 2012, 107, 3357-3369.	1.8	123
24	Rate Coding Is Compressed But Variability Is Unaltered for Motor Units in a Hand Muscle of Old Adults. Journal of Neurophysiology, 2007, 97, 3206-3218.	1.8	116
25	Motor-Unit Synchronization Is Not Responsible for Larger Motor-Unit Forces in Old Adults. Journal of Neurophysiology, 2000, 84, 358-366.	1.8	103
26	Rate Coding and the Control of Muscle Force. Cold Spring Harbor Perspectives in Medicine, 2017, 7, a029702.	6.2	102
27	Amplitude cancellation reduces the size of motor unit potentials averaged from the surface EMG. Journal of Applied Physiology, 2006, 100, 1928-1937.	2.5	100
28	Inappropriate interpretation of surface EMG signals and muscle fiber characteristics impedes understanding of the control of neuromuscular function. Journal of Applied Physiology, 2015, 119, 1516-1518.	2.5	95
29	Consensus for experimental design in electromyography (CEDE) project: Electrode selection matrix. Journal of Electromyography and Kinesiology, 2019, 48, 128-144.	1.7	95
30	Associations among Strength, Steadiness, and Hand Function across the Adult Life Span. Medicine and Science in Sports and Exercise, 2011, 43, 560-567.	0.4	92
31	The 1- to 2-Hz oscillations in muscle force are exacerbated by stress, especially in older adults. Journal of Applied Physiology, 2004, 97, 225-235.	2.5	91
32	Spinal Mechanisms Contribute to Differences in the Time to Failure of Submaximal Fatiguing Contractions Performed With Different Loads. Journal of Neurophysiology, 2008, 99, 1096-1104.	1.8	87
33	Strength training can improve steadiness in persons with essential tremor. , 2000, 23, 771-778.		82
34	Strength training reduces force fluctuations during anisometric contractions of the quadriceps femoris muscles in old adults. Journal of Applied Physiology, 2004, 96, 1530-1540.	2.5	80
35	Muscle activation and time to task failure differ with load type and contraction intensity for a human hand muscle. Experimental Brain Research, 2005, 167, 165-177.	1.5	79
36	Gender Differences in the Fatigability of Human Skeletal Muscle. Journal of Neurophysiology, 1999, 82, 3590-3593.	1.8	78

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37	Presynaptic Modulation of Ia Afferents in Young and Old Adults When Performing Force and Position Control. Journal of Neurophysiology, 2010, 103, 623-631.	1.8	75
38	Physiological validation of the decomposition of surface EMG signals. Journal of Electromyography and Kinesiology, 2019, 46, 70-83.	1.7	69
39	Muscle fatigue â€“ from motor units to clinical symptoms. Journal of Biomechanics, 2012, 45, 427-433.	2.1	66
40	Force Steadiness: From Motor Units to Voluntary Actions. Physiology, 2021, 36, 114-130.	3.1	66
41	Prolonged muscle vibration increases stretch reflex amplitude, motor unit discharge rate, and force fluctuations in a hand muscle. Journal of Applied Physiology, 2005, 99, 1835-1842.	2.5	63
42	Limb immobilization alters muscle activation patterns during a fatiguing isometric contraction. Muscle and Nerve, 2000, 23, 1381-1392.	2.2	61
43	Variability in common synaptic input to motor neurons modulates both force steadiness and pegboard time in young and older adults. Journal of Physiology, 2018, 596, 3793-3806.	2.9	57
44	Distinguishing between Fatigue and Fatigability in Multiple Sclerosis. Neurorehabilitation and Neural Repair, 2021, 35, 960-973.	2.9	54
45	Muscle activity and time to task failure differ with load compliance and target force for elbow flexor muscles. Journal of Applied Physiology, 2011, 110, 125-136.	2.5	53
46	Neural strategies in the control of muscle force. Muscle and Nerve, 1997, 20, 66-69.	2.2	49
47	Electrical Stimulation of Muscle: Electrophysiology and Rehabilitation. Physiology, 2020, 35, 40-56.	3.1	47
48	Motor unit recruitment in human biceps brachii during sustained voluntary contractions. Journal of Physiology, 2008, 586, 2183-2193.	2.9	45
49	Load Type Influences Motor Unit Recruitment in Biceps Brachii During a Sustained Contraction. Journal of Neurophysiology, 2009, 102, 1725-1735.	1.8	42
50	Force steadiness as a predictor of time to complete a pegboard test of dexterity in young men and women. Journal of Applied Physiology, 2016, 120, 1410-1417.	2.5	41
51	Fatigability of the dorsiflexors and associations among multiple domains of motor function in young and old adults. Experimental Gerontology, 2014, 55, 92-101.	2.8	38
52	Steadiness Training with Light Loads in the Knee Extensors of Elderly Adults. Medicine and Science in Sports and Exercise, 2006, 38, 735-745.	0.4	37
53	Muscle activity differs with load compliance during fatiguing contractions with the knee extensor muscles. Experimental Brain Research, 2010, 203, 307-316.	1.5	34
54	Practicing a Functional Task Improves Steadiness with Hand Muscles in Older Adults. Medicine and Science in Sports and Exercise, 2011, 43, 1531-1537.	0.4	33

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55	Distribution of motor unit properties across human muscles. Journal of Applied Physiology, 2022, 132, 1-13.	2.5	32
56	Differences in postural sway among healthy adults are associated with the ability to perform steady contractions with leg muscles. Experimental Brain Research, 2020, 238, 487-497.	1.5	29
57	Consensus for experimental design in electromyography (CEDE) project: Terminology matrix. Journal of Electromyography and Kinesiology, 2021, 59, 102565.	1.7	29
58	Discharge characteristics of motor units during longâ€duration contractions. Experimental Physiology, 2014, 99, 1387-1398.	2.0	27
59	Discharge properties of motor units during steady isometric contractions performed with the dorsiflexor muscles. Journal of Applied Physiology, 2012, 112, 1897-1905.	2.5	26
60	Motor unit discharge characteristics and walking performance of individuals with multiple sclerosis. Journal of Neurophysiology, 2018, 119, 1273-1282.	1.8	26
61	Motor unit activity, force steadiness, and perceived fatigability are correlated with mobility in older adults. Journal of Neurophysiology, 2018, 120, 1988-1997.	1.8	25
62	Prolonged Vibration of the Biceps Brachii Tendon Reduces Time to Failure When Maintaining Arm Position With a Submaximal Load. Journal of Neurophysiology, 2006, 95, 1185-1193.	1.8	23
63	Sodium nitrite supplementation improves motor function and skeletal muscle inflammatory profile in old male mice. Journal of Applied Physiology, 2015, 118, 163-169.	2.5	23
64	Consensus for experimental design in electromyography (CEDE) project: High-density surface electromyography matrix. Journal of Electromyography and Kinesiology, 2022, 64, 102656.	1.7	22
65	Force control during submaximal isometric contractions is associated with walking performance in persons with multiple sclerosis. Journal of Neurophysiology, 2020, 123, 2191-2200.	1.8	21
66	Enhancing the weight training experience: a comparison of limb kinematics and EMG activity on three machines. European Journal of Applied Physiology, 2010, 109, 789-801.	2.5	20
67	A framework for identifying the adaptations responsible for differences in pegboard times between middle-aged and older adults. Experimental Gerontology, 2017, 97, 9-16.	2.8	19
68	A latent low-dimensional common input drives a pool of motor neurons: a probabilistic latent state-space model. Journal of Neurophysiology, 2017, 118, 2238-2250.	1.8	16
69	Individuals with sacroiliac joint dysfunction display asymmetrical gait and a depressed synergy between muscles providing sacroiliac joint force closure when walking. Journal of Electromyography and Kinesiology, 2018, 43, 95-103.	1.7	16
70	Neuromuscular electrical stimulation can improve mobility in older adults but the time course varies across tasks: Double-blind, randomized trial. Experimental Gerontology, 2018, 108, 269-275.	2.8	16
71	Poor estimates of motor variability are associated with longer grooved pegboard times for middle-aged and older adults. Journal of Neurophysiology, 2019, 121, 588-601.	1.8	16
72	Reply to De Luca, Nawab, and Kline: The proposed method to validate surface EMG signal decomposition remains problematic. Journal of Applied Physiology, 2015, 118, 1085-1085.	2.5	15

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73	Changes in Fatigue Are the Same for Trained Men and Women after Resistance Exercise. Medicine and Science in Sports and Exercise, 2020, 52, 196-204.	0.4	15
74	Force steadiness during a coâ€contraction task can be improved with practice, but only by young adults and not by middleâ€aged or old adults. Experimental Physiology, 2015, 100, 182-192.	2.0	14
75	Fatigue-induced adjustment in antagonist coactivation by old adults during a steadiness task. Journal of Applied Physiology, 2016, 120, 1039-1046.	2.5	14
76	Changes in neural drive to calf muscles during steady submaximal contractions after repeated static stretches. Journal of Physiology, 2021, 599, 4321-4336.	2.9	13
77	Sensory nerve stimulation causes an immediate improvement in motor function of persons with multiple sclerosis: A pilot study. Multiple Sclerosis and Related Disorders, 2020, 38, 101508.	2.0	12
78	Peg-manipulation capabilities during a test of manual dexterity differ for persons with multiple sclerosis and healthy individuals. Experimental Brain Research, 2017, 235, 3487-3493.	1.5	11
79	Pulse Width Does Not Influence the Gains Achieved With Neuromuscular Electrical Stimulation in People With Multiple Sclerosis: Double-Blind, Randomized Trial. Neurorehabilitation and Neural Repair, 2018, 32, 84-93.	2.9	11
80	Modulation of motor unit activity in biceps brachii by neuromuscular electrical stimulation applied to the contralateral arm. Journal of Applied Physiology, 2015, 118, 1544-1552.	2.5	10
81	Control of force during rapid visuomotor force-matching tasks can be described by discrete time PID control algorithms. Experimental Brain Research, 2017, 235, 2561-2573.	1.5	10
82	Patients with sacroiliac joint dysfunction exhibit altered movement strategies when performing a sit-to-stand task. Spine Journal, 2018, 18, 1434-1440.	1.3	10
83	Adjustments in Torque Steadiness During Fatiguing Contractions Are Inversely Correlated With IQ in Persons With Multiple Sclerosis. Frontiers in Physiology, 2018, 9, 1404.	2.8	10
84	Motor unit activity in biceps brachii of left-handed humans during sustained contractions with two load types. Journal of Neurophysiology, 2016, 116, 1358-1365.	1.8	9
85	Electrical nerve stimulation modulates motor unit activity in contralateral biceps brachii during steady isometric contractions. Journal of Neurophysiology, 2018, 120, 2603-2613.	1.8	9
86	The length of tibialis anterior does not influence force steadiness during submaximal isometric contractions with the dorsiflexors. European Journal of Sport Science, 2022, 22, 539-548.	2.7	9
87	Biomechanics and Neuroscience: A Failure to Communicate. Exercise and Sport Sciences Reviews, 2004, 32, 1-3.	3.0	8
88	Manipulation of sensory input can improve stretching outcomes. European Journal of Sport Science, 2018, 18, 83-91.	2.7	8
89	Self-massage prior to stretching improves flexibility in young and middle-aged adults. Journal of Sports Sciences, 2019, 37, 1543-1550.	2.0	8
90	The modulation of force steadiness by electrical nerve stimulation applied to the wrist extensors differs for young and older adults. European Journal of Applied Physiology, 2019, 119, 301-310.	2.5	8

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91	Leg Dominance Does Not Influence Maximal Force, Force Steadiness, or Motor Unit Discharge Characteristics. Medicine and Science in Sports and Exercise, 2022, 54, 1278-1287.	0.4	8
92	Association between effective neural drive to the triceps surae and fluctuations in plantarâ€flexion torque during submaximal isometric contractions. Experimental Physiology, 2022, 107, 489-507.	2.0	7
93	Treatment with electrical stimulation of sensory nerves improves motor function and disability status in persons with multiple sclerosis: A pilot study. Journal of Electromyography and Kinesiology, 2021, 61, 102607.	1.7	5
94	Fatigue, pain, and the recovery of neuromuscular function after consecutive days of full-body resistance exercise in trained men. European Journal of Applied Physiology, 2021, 121, 3103-3116.	2.5	4
95	Peg-manipulation capabilities of middle-aged adults have a greater influence on pegboard times than those of young and old adults. Experimental Brain Research, 2018, 236, 2165-2172.	1.5	3
96	Exercise with TENS does not augment gains in balance and strength for dancers. Journal of Electromyography and Kinesiology, 2021, 56, 102507.	1.7	3
97	Ankle Angle but Not Knee Angle Influences Force Fluctuations During Plantar Flexion. International Journal of Sports Medicine, 2022, 43, 131-137.	1.7	3
98	Declines in muscle contractility and activation during isometric contractions of the knee extensors vary with contraction intensity and exercise volume. Experimental Physiology, 2021, 106, 2096-2106.	2.0	3
99	A primer on motor unit physiology. Journal of Electromyography and Kinesiology, 2019, 47, 123-124.	1.7	2
100	Fatigability of the knee extensors following high- and low-load resistance exercise sessions in trained men. European Journal of Applied Physiology, 2022, 122, 245-254.	2.5	2
101	Bursting TENS increases walking endurance more than continuous TENS in middle-aged adults. Journal of Electromyography and Kinesiology, 2022, 63, 102644.	1.7	2
102	Motor unit physiology: Some unresolved issues. , 0, .		1