

Jacques Duchateau

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94
papers

6,884
citations

45
h-index

82
g-index

99
ext. papers

7,914
ext. citations

3.2
avg, IF

6.32
L-index

#	Paper	IF	Citations
94	Muscle fatigue: what, why and how it influences muscle function. <i>Journal of Physiology</i> , 2008 , 586, 11-23	3.9	637
93	Rate of force development: physiological and methodological considerations. <i>European Journal of Applied Physiology</i> , 2016 , 116, 1091-116	3.4	532
92	Changes in single motor unit behaviour contribute to the increase in contraction speed after dynamic training in humans. <i>Journal of Physiology</i> , 1998 , 513 (Pt 1), 295-305	3.9	478
91	Translating Fatigue to Human Performance. <i>Medicine and Science in Sports and Exercise</i> , 2016 , 48, 2228-2238		320
90	Motor unit behaviour and contractile changes during fatigue in the human first dorsal interosseus. <i>Journal of Physiology</i> , 2001 , 534, 903-12	3.9	214
89	Age-related decline in rate of torque development is accompanied by lower maximal motor unit discharge frequency during fast contractions. <i>Journal of Applied Physiology</i> , 2008 , 104, 739-46	3.7	212
88	Neural Contributions to Muscle Fatigue: From the Brain to the Muscle and Back Again. <i>Medicine and Science in Sports and Exercise</i> , 2016 , 48, 2294-2306	1.2	211
87	Training adaptations in the behavior of human motor units. <i>Journal of Applied Physiology</i> , 2006 , 101, 1766-75	3.7	204
86	Effect of static stretch training on neural and mechanical properties of the human plantar-flexor muscles. <i>Muscle and Nerve</i> , 2004 , 29, 248-55	3.4	164
85	Muscle fatigue during concentric and eccentric contractions. <i>Muscle and Nerve</i> , 2000 , 23, 1727-35	3.4	134
84	Motor unit recruitment order during voluntary and electrically induced contractions in the tibialis anterior. <i>Experimental Brain Research</i> , 1997 , 114, 117-23	2.3	129
83	Human motor unit recordings: origins and insight into the integrated motor system. <i>Brain Research</i> , 2011 , 1409, 42-61	3.7	123
82	Muscle fatigue and the mechanisms of task failure. <i>Exercise and Sport Sciences Reviews</i> , 2004 , 32, 44-9	6.7	121
81	Voluntary activation during maximal contraction with advancing age: a brief review. <i>European Journal of Applied Physiology</i> , 2007 , 100, 543-51	3.4	118
80	Electrical stimulation as a modality to improve performance of the neuromuscular system. <i>Exercise and Sport Sciences Reviews</i> , 2007 , 35, 180-5	6.7	118
79	Reflex regulation during sustained and intermittent submaximal contractions in humans. <i>Journal of Physiology</i> , 2002 , 541, 959-67	3.9	117
78	Effect of time of day on force variation in a human muscle. <i>Muscle and Nerve</i> , 1999 , 22, 1380-7	3.4	116

77	Neural control of shortening and lengthening contractions: influence of task constraints. <i>Journal of Physiology</i> , 2008 , 586, 5853-64	3.9	115
76	Neuromuscular electrical stimulation and voluntary exercise. <i>Sports Medicine</i> , 1992 , 14, 100-13	10.6	115
75	Neural control of lengthening contractions. <i>Journal of Experimental Biology</i> , 2016 , 219, 197-204	3	113
74	Mechanisms of decreased motoneurone excitation during passive muscle stretching. <i>Experimental Brain Research</i> , 2001 , 137, 163-9	2.3	107
73	Age-related fatigability of the ankle dorsiflexor muscles during concentric and eccentric contractions. <i>European Journal of Applied Physiology</i> , 2007 , 100, 515-25	3.4	106
72	Neural aspects of muscle stretching. <i>Exercise and Sport Sciences Reviews</i> , 2006 , 34, 154-8	6.7	106
71	Muscle stretching and motoneuron excitability. <i>European Journal of Applied Physiology and Occupational Physiology</i> , 1988 , 58, 47-52		105
70	Unraveling the neurophysiology of muscle fatigue. <i>Journal of Electromyography and Kinesiology</i> , 2011 , 21, 208-19	2.5	104
69	The relative lengthening of the myotendinous structures in the medial gastrocnemius during passive stretching differs among individuals. <i>Journal of Applied Physiology</i> , 2009 , 106, 169-77	3.7	100
68	Aging does not affect voluntary activation of the ankle dorsiflexors during isometric, concentric, and eccentric contractions. <i>Journal of Applied Physiology</i> , 2005 , 99, 31-8	3.7	85
67	Postactivation potentiation in a human muscle: effect on the rate of torque development of tetanic and voluntary isometric contractions. <i>Journal of Applied Physiology</i> , 2007 , 102, 1394-401	3.7	81
66	Specific modulation of motor unit discharge for a similar change in fascicle length during shortening and lengthening contractions in humans. <i>Journal of Physiology</i> , 2006 , 577, 753-65	3.9	79
65	Inappropriate interpretation of surface EMG signals and muscle fiber characteristics impedes understanding of the control of neuromuscular function. <i>Journal of Applied Physiology</i> , 2015 , 119, 1516-8	3.7	78
64	Spinal mechanisms contribute to differences in the time to failure of submaximal fatiguing contractions performed with different loads. <i>Journal of Neurophysiology</i> , 2008 , 99, 1096-104	3.2	77
63	Mechanical properties and behaviour of motor units in the tibialis anterior during voluntary contractions. <i>Applied Physiology, Nutrition, and Metabolism</i> , 1997 , 22, 585-97		76
62	Insights into the neural control of eccentric contractions. <i>Journal of Applied Physiology</i> , 2014 , 116, 1418-35	3.7	71
61	Specific modulation of corticospinal and spinal excitabilities during maximal voluntary isometric, shortening and lengthening contractions in synergist muscles. <i>Journal of Physiology</i> , 2011 , 589, 2901-16	3.9	71
60	Cortical and spinal modulation of antagonist coactivation during a submaximal fatiguing contraction in humans. <i>Journal of Neurophysiology</i> , 2008 , 99, 554-63	3.2	71

59	Neural adaptations with chronic activity patterns in able-bodied humans. <i>American Journal of Physical Medicine and Rehabilitation</i> , 2002 , 81, S17-27	2.6	70
58	Spinal reflexes and coactivation of ankle muscles during a submaximal fatiguing contraction. <i>Journal of Applied Physiology</i> , 2005 , 99, 1182-8	3.7	64
57	Age-related influence of vision and proprioception on Ia presynaptic inhibition in soleus muscle during upright stance. <i>Journal of Physiology</i> , 2012 , 590, 5541-54	3.9	60
56	Maximal discharge rate of motor units determines the maximal rate of force development during ballistic contractions in human. <i>Frontiers in Human Neuroscience</i> , 2014 , 8, 234	3.3	57
55	Training effects of sub-maximal electrostimulation in a human muscle. <i>Medicine and Science in Sports and Exercise</i> , 1988 , 20, 99-104	1.2	57
54	Preceding muscle activity influences motor unit discharge and rate of torque development during ballistic contractions in humans. <i>Journal of Physiology</i> , 2005 , 562, 635-44	3.9	56
53	Postactivation potentiation in human muscle is not related to the type of maximal conditioning contraction. <i>Muscle and Nerve</i> , 2004 , 30, 328-36	3.4	54
52	Effects of noradrenaline and dopamine on supraspinal fatigue in well-trained men. <i>Medicine and Science in Sports and Exercise</i> , 2012 , 44, 2299-308	1.2	53
51	Change in muscle fascicle length influences the recruitment and discharge rate of motor units during isometric contractions. <i>Journal of Neurophysiology</i> , 2005 , 94, 3126-33	3.2	53
50	Rate Coding and the Control of Muscle Force. <i>Cold Spring Harbor Perspectives in Medicine</i> , 2017 , 7,	5.4	50
49	Influence of age and posture on spinal and corticospinal excitability. <i>Experimental Gerontology</i> , 2015 , 69, 62-9	4.5	43
48	Postactivation potentiation influences differently the nonlinear summation of contractions in young and elderly adults. <i>Journal of Applied Physiology</i> , 2005 , 98, 1243-50	3.7	43
47	Postactivation potentiation in a human muscle: effect on the load-velocity relation of tetanic and voluntary shortening contractions. <i>Journal of Applied Physiology</i> , 2007 , 103, 1318-25	3.7	40
46	Effects of a combined essential amino acids/carbohydrate supplementation on muscle mass, architecture and maximal strength following heavy-load training. <i>European Journal of Applied Physiology</i> , 2010 , 110, 479-88	3.4	38
45	Twitch analysis as an approach to motor unit activation during electrical stimulation. <i>Applied Physiology, Nutrition, and Metabolism</i> , 1994 , 19, 451-61		37
44	Specific modulation of spinal and cortical excitabilities during lengthening and shortening submaximal and maximal contractions in plantar flexor muscles. <i>Journal of Applied Physiology</i> , 2014 , 117, 1440-50	3.7	35
43	Age-related changes in the behavior of the muscle-tendon unit of the gastrocnemius medialis during upright stance. <i>Journal of Applied Physiology</i> , 2012 , 112, 296-304	3.7	35
42	Effects of short-term training combining strength and balance exercises on maximal strength and upright standing steadiness in elderly adults. <i>Experimental Gerontology</i> , 2015 , 61, 38-46	4.5	29

41	The neural control of coactivation during fatiguing contractions revisited. <i>Journal of Electromyography and Kinesiology</i> , 2014 , 24, 780-8	2.5	28
40	Contributions of slow and fast muscles of triceps surae to a cyclic movement. <i>European Journal of Applied Physiology and Occupational Physiology</i> , 1986 , 55, 476-81		26
39	Influence of neural adjustments and muscle oxygenation on task failure during sustained isometric contractions with elbow flexor muscles. <i>Experimental Physiology</i> , 2012 , 97, 918-29	2.4	25
38	Discharge properties of motor units during steady isometric contractions performed with the dorsiflexor muscles. <i>Journal of Applied Physiology</i> , 2012 , 112, 1897-905	3.7	23
37	Load-dependent muscle strategy during plantarflexion in humans. <i>Journal of Electromyography and Kinesiology</i> , 1999 , 9, 1-11	2.5	23
36	Acute effect of muscle stretching on the steadiness of sustained submaximal contractions of the plantar flexor muscles. <i>Journal of Applied Physiology</i> , 2011 , 110, 407-15	3.7	21
35	Velocity-dependent muscle strategy during plantarflexion in humans. <i>Journal of Electromyography and Kinesiology</i> , 1996 , 6, 225-33	2.5	21
34	Postactivation potentiation of short tetanic contractions is differently influenced by stimulation frequency in young and elderly adults. <i>European Journal of Applied Physiology</i> , 2008 , 103, 449-59	3.4	19
33	M-wave potentiation after voluntary contractions of different durations and intensities in the tibialis anterior. <i>Journal of Applied Physiology</i> , 2015 , 118, 953-64	3.7	17
32	The repeated bout effect of eccentric exercise is not associated with changes in voluntary activation. <i>European Journal of Applied Physiology</i> , 2010 , 108, 1065-74	3.4	17
31	Electrical Stimulation of Muscle: Electrophysiology and Rehabilitation. <i>Physiology</i> , 2020 , 35, 40-56	9.8	16
30	Modulation of reflex responses in activated ankle dorsiflexors differs in healthy young and elderly subjects. <i>European Journal of Applied Physiology</i> , 2011 , 111, 1909-16	3.4	15
29	Is the Spensen test valid to assess muscle fatigue of the trunk extensor muscles?. <i>Journal of Back and Musculoskeletal Rehabilitation</i> , 2016 , 29, 31-40	1.4	13
28	Effects of short-term dexamethasone administration on corticospinal excitability. <i>Medicine and Science in Sports and Exercise</i> , 2014 , 46, 695-701	1.2	11
27	Strength Training: In Search of Optimal Strategies to Maximize Neuromuscular Performance. <i>Exercise and Sport Sciences Reviews</i> , 2021 , 49, 2-14	6.7	11
26	Distinguishing between Fatigue and Fatigability in Multiple Sclerosis. <i>Neurorehabilitation and Neural Repair</i> , 2021 , 35, 960-973	4.7	11
25	Peripheral muscle fatigue in hospitalised geriatric patients is associated with circulating markers of inflammation. <i>Experimental Gerontology</i> , 2017 , 95, 128-135	4.5	10
24	Leucine-enriched protein supplementation does not influence neuromuscular adaptations in response to a 6-month strength training programme in older adults. <i>Experimental Gerontology</i> , 2016 , 82, 58-66	4.5	10

23	Effects of load magnitude on muscular activity and tissue oxygenation during repeated elbow flexions until failure. <i>European Journal of Applied Physiology</i> , 2013 , 113, 1895-904	3.4	10
22	Évolution et adaptations de l'entraînement du système neuromusculaire au cours du vieillissement. <i>Science and Sports</i> , 2006 , 21, 199-203	0.8	10
21	Comparison of muscle activity and tissue oxygenation during strength training protocols that differ by their organisation, rest interval between sets, and volume. <i>European Journal of Applied Physiology</i> , 2016 , 116, 1795-806	3.4	8
20	Paths of discovery in motoneuron neurobiology. <i>Brain Research</i> , 2011 , 1409, 1-2	3.7	7
19	Efficacy of a new strength training design: the 3/7 method. <i>European Journal of Applied Physiology</i> , 2019 , 119, 1093-1104	3.4	6
18	Effect of a periodized power training program on the functional performances and contractile properties of the quadriceps in sprinters. <i>Research Quarterly for Exercise and Sport</i> , 2012 , 83, 540-5	1.9	6
17	Spinal and corticospinal pathways are differently modulated when standing at the bottom and the top of a three-step staircase in young and older adults. <i>European Journal of Applied Physiology</i> , 2017 , 117, 1165-1174	3.4	5
16	Acute Effect of Noradrenergic Modulation on Motor Output Adjustment in Men. <i>Medicine and Science in Sports and Exercise</i> , 2018 , 50, 1579-1587	1.2	4
15	Aftereffects of prolonged Achilles tendon vibration on postural control are reduced in older adults. <i>Experimental Gerontology</i> , 2020 , 131, 110822	4.5	4
14	Anodal transcranial direct current stimulation does not influence the neural adjustments associated with fatiguing contractions in a hand muscle. <i>European Journal of Applied Physiology</i> , 2019 , 119, 597-609	3.4	4
13	Muscle Function 2019 , 129-157		3
12	Short vs. long pulses for testing knee extensor neuromuscular properties: does it matter?. <i>European Journal of Applied Physiology</i> , 2018 , 118, 361-369	3.4	3
11	Neural Correlates to the Increase in Maximal Force after Dexamethasone Administration. <i>Medicine and Science in Sports and Exercise</i> , 2018 , 50, 218-224	1.2	2
10	The slack test does not assess maximal shortening velocity of muscle fascicles in humans. <i>Journal of Experimental Biology</i> , 2018 , 221,	3	2
9	Effet du crocheteur myo-aponévrotique du triceps sural sur la tension passive et l'architecture musculaire de l'ensemble. <i>Kinesithérapie</i> , 2009 , 9, 56-61	0.1	2
8	Initial conditions influence the characteristics of ballistic contractions in the ankle dorsiflexors. <i>European Journal of Applied Physiology</i> , 2010 , 110, 805-14	3.4	2
7	Le vieillissement du système neuromusculaire : de la sarcopénie à la dynapénie. <i>Kinesithérapie</i> , 2014 , 14, 45-51	0.1	1
6	Training Adaptation of the Neuromuscular System 2010 , 216-253		1

5	Relation entre les modifications de l'architecture musculo-tendineuse et le développement de la tension pendant l'étirement passif du triceps sural. <i>Kinesithérapie</i> , 2006 , 6, 29-33	0.1	1
4	Modulation of the Hoffmann reflex in soleus and medial gastrocnemius during stair ascent and descent in young and older adults. <i>Gait and Posture</i> , 2019 , 68, 115-121	2.6	1
3	Forearm muscles fatigue induced by repetitive braking on a motorcycle is best discriminated by specific kinetic parameters. <i>PLoS ONE</i> , 2021 , 16, e0246242	3.7	0
2	Changes in corticospinal excitability during the preparation phase of ballistic and ramp contractions. <i>Journal of Physiology</i> , 2021 , 599, 1551-1566	3.9	0
1	Effects of tendon vibration and age on force reproduction task performed with wrist flexors.. <i>Experimental Brain Research</i> , 2022 , 240, 941	2.3	