

# Patrick J Sparto Pt

## List of Publications by Year in descending order

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111  
papers

4,113  
citations

94433

37  
h-index

133252

59  
g-index

113  
all docs

113  
docs citations

113  
times ranked

4320  
citing authors

#	ARTICLE	IF	CITATIONS
1	Vestibular Rehabilitation for Dizziness and Balance Disorders After Concussion. Journal of Neurologic Physical Therapy, 2010, 34, 87-93.	1.4	368
2	Alterations in lower extremity movement and muscle activation patterns in individuals with knee osteoarthritis. Clinical Biomechanics, 2004, 19, 44-49.	1.2	284
3	Cervicogenic Dizziness: A Review of Diagnosis and Treatment. Journal of Orthopaedic and Sports Physical Therapy, 2000, 30, 755-766.	3.5	197
4	The Effect of Fatigue on Multijoint Kinematics, Coordination, and Postural Stability During a Repetitive Lifting Test. Journal of Orthopaedic and Sports Physical Therapy, 1997, 25, 3-12.	3.5	154
5	The Reliability and Validity of the Four Square Step Test for People With Balance Deficits Secondary to a Vestibular Disorder. Archives of Physical Medicine and Rehabilitation, 2007, 88, 99-104.	0.9	127
6	Exercise Prescription Patterns in Patients Treated with Vestibular Rehabilitation After Concussion. Physiotherapy Research International, 2013, 18, 100-108.	1.5	111
7	The Effect of Fatigue on Multijoint Kinematics and Load Sharing During a Repetitive Lifting Test. Spine, 1997, 22, 2647-2654.	2.0	98
8	The five times sit to stand test: Responsiveness to change and concurrent validity in adults undergoing vestibular rehabilitation**. Journal of Vestibular Research: Equilibrium and Orientation, 2007, 16, 233-243.	2.0	94
9	Stiffness and Damping in Postural Control Increase With Age. IEEE Transactions on Biomedical Engineering, 2010, 57, 267-275.	4.2	85
10	Sensory re-weighting in human postural control during moving-scene perturbations. Experimental Brain Research, 2005, 167, 260-267.	1.5	82
11	Comparison of Virtual Reality Based Therapy With Customized Vestibular Physical Therapy for the Treatment of Vestibular Disorders. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2014, 22, 389-399.	4.9	74
12	The influence of dynamic visual cues for postural control in children aged 7â€“12Âyears. Experimental Brain Research, 2006, 168, 505-516.	1.5	72
13	Quantitative comparison of correction techniques for removing systemic physiological signal in functional near-infrared spectroscopy studies. Neurophotonics, 2020, 7, 035009.	3.3	67
14	Wavelet and short-time Fourier transform analysis of electromyography for detection of back muscle fatigue. IEEE Transactions on Rehabilitation Engineering: A Publication of the IEEE Engineering in Medicine and Biology Society, 2000, 8, 433-436.	1.4	63
15	Wavelet Analysis of Electromyography For Back Muscle Fatigue Detection During Isokinetic Constant-Torque Exertions. Spine, 1999, 24, 1791.	2.0	60
16	Reliability and Validity of the Falls Efficacy Scaleâ€“International (FES-I) in Individuals With Dizziness and Imbalance. Otology and Neurotology, 2013, 34, 1104-1108.	1.3	60
17	Physical Activity and Physical Function in Individuals Post-bariatric Surgery. Obesity Surgery, 2011, 21, 1243-1249.	2.1	57
18	Principles of vestibular physical therapy rehabilitation. NeuroRehabilitation, 2011, 29, 157-166.	1.3	56

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19	The Development and Validation of the Vestibular Activities and Participation Measure. Archives of Physical Medicine and Rehabilitation, 2012, 93, 1822-1831.	0.9	56
20	Functional brain imaging of multi-sensory vestibular processing during computerized dynamic posturography using near-infrared spectroscopy. NeuroImage, 2013, 74, 318-325.	4.2	54
21	Relationship Between Cognitive Assessment and Balance Measures in Adolescents Referred for Vestibular Physical Therapy After Concussion. Clinical Journal of Sport Medicine, 2016, 26, 46-52.	1.8	54
22	Acrophobia and Pathological Height Vertigo: Indications for Vestibular Physical Therapy?. Physical Therapy, 2005, 85, 443-458.	2.4	52
23	Postural adaptations to repeated optic flow stimulation in older adults. Gait and Posture, 2008, 28, 385-391.	1.4	50
24	Assessment of Fine Motor Control in Individuals with Parkinson's Disease Using Force Tracking with a Secondary Cognitive Task. Journal of Neurologic Physical Therapy, 2010, 34, 32-40.	1.4	48
25	Neuromuscular Trunk Performance and Spinal Loading During a Fatiguing Isometric Trunk Extension with Varying Torque Requirements. Journal of Spinal Disorders, 1997, 10, 145-156.	1.1	47
26	Responses to a Virtual Reality Grocery Store in Persons with and without Vestibular Dysfunction. Cyberpsychology, Behavior and Social Networking, 2006, 9, 152-156.	2.2	47
27	Estimating Postural Control With the Balance Rehabilitation Unit: Measurement Consistency, Accuracy, Validity, and Comparison With Dynamic Posturography. Archives of Physical Medicine and Rehabilitation, 2014, 95, 65-73.	0.9	47
28	The five times sit to stand test: responsiveness to change and concurrent validity in adults undergoing vestibular rehabilitation. Journal of Vestibular Research: Equilibrium and Orientation, 2006, 16, 233-43.	2.0	47
29	Challenging the motor control of walking: Gait variability during slower and faster pace walking conditions in younger and older adults. Archives of Gerontology and Geriatrics, 2016, 66, 54-61.	3.0	46
30	Neuroimaging of an attention demanding dual-task during dynamic postural control. Gait and Posture, 2017, 57, 193-198.	1.4	46
31	Estimation of Trunk Muscle Forces and Spinal Loads During Fatiguing Repetitive Trunk Exertions. Spine, 1998, 23, 2563-2573.	2.0	45
32	The Influence of Body Mass Index on Self-report and Performance-based Measures of Physical Function in Adult Women. Cardiopulmonary Physical Therapy Journal, 2011, 22, 11-20.	0.3	45
33	Functional MR imaging of a simulated balance task. Brain Research, 2014, 1555, 20-27.	2.2	45
34	Longitudinal posturography and rotational testing in children three to nine years of age: Normative data. Otolaryngology - Head and Neck Surgery, 2010, 142, 708-714.	1.9	42
35	Spectral and Temporal Responses of Trunk Extensor Electromyography to an Isometric Endurance Test. Spine, 1997, 22, 418-426.	2.0	41
36	Comparison of the Ferno Scoop Stretcher with the Long Backboard for Spinal Immobilization. Prehospital Emergency Care, 2006, 10, 46-51.	1.8	40

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37	Correction of motion artifacts and serial correlations for real-time functional near-infrared spectroscopy. <i>Neurophotonics</i> , 2016, 3, 031410.	3.3	40
38	Functional near-infrared spectroscopy (fNIRS) brain imaging of multi-sensory integration during computerized dynamic posturography in middle-aged and older adults. <i>Experimental Brain Research</i> , 2017, 235, 1247-1256.	1.5	39
39	Measurement of brain activation during an upright stepping reaction task using functional near-infrared spectroscopy. <i>Human Brain Mapping</i> , 2013, 34, 2817-2828.	3.6	37
40	Explicit Action Switching Interferes with the Context-Specificity of Motor Memories in Older Adults. <i>Frontiers in Aging Neuroscience</i> , 2017, 9, 40.	3.4	37
41	The steady-state postural response to continuous sinusoidal galvanic vestibular stimulation. <i>Gait and Posture</i> , 2003, 18, 64-72.	1.4	36
42	Postural adjustment errors reveal deficits in inhibition during lateral step initiation in older adults. <i>Journal of Neurophysiology</i> , 2013, 109, 415-428.	1.8	36
43	Responsiveness of Self-Report Measures in Individuals With Vertigo, Dizziness, and Unsteadiness. <i>Otology and Neurotology</i> , 2014, 35, 884-888.	1.3	35
44	Motor sequence learning-induced neural efficiency in functional brain connectivity. <i>Behavioural Brain Research</i> , 2017, 319, 87-95.	2.2	35
45	Altered Gait Characteristics in Individuals With Knee Osteoarthritis and Self-Reported Knee Instability. <i>Journal of Orthopaedic and Sports Physical Therapy</i> , 2015, 45, 351-359.	3.5	33
46	Vestibulo-Ocular Reflex Function in Adolescents With Sport-Related Concussion: Preliminary Results. <i>Sports Health</i> , 2019, 11, 479-485.	2.7	33
47	Simulator sickness when performing gaze shifts within a wide field of view optic flow environment: preliminary evidence for using virtual reality in vestibular rehabilitation. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2004, 1, 14.	4.6	30
48	A technology probe of wearable in-home computer-assisted physical therapy. , 2014, , .		29
49	Vestibular Rehabilitation and Factors That Can Affect Outcome. <i>Seminars in Neurology</i> , 2020, 40, 165-172.	1.4	29
50	Change in Knee Cartilage Volume in Individuals Completing a Therapeutic Exercise Program for Knee Osteoarthritis. <i>Journal of Orthopaedic and Sports Physical Therapy</i> , 2011, 41, 708-722.	3.5	27
51	The reliability and response stability of dynamic testing of the vestibulo-ocular reflex in patients with vestibular disease. <i>Journal of Vestibular Research: Equilibrium and Orientation</i> , 2011, 21, 277-288.	2.0	27
52	The test-retest reliability and minimal detectable change of spatial and temporal gait variability during usual over-ground walking for younger and older adults. <i>Gait and Posture</i> , 2016, 44, 94-99.	1.4	27
53	Performance of High School Adolescents on Functional Gait and Balance Measures. <i>Pediatric Physical Therapy</i> , 2014, 26, 191-199.	0.6	24
54	The usefulness of the video head impulse test in children and adults post-concussion. <i>Journal of Vestibular Research: Equilibrium and Orientation</i> , 2017, 26, 439-446.	2.0	24

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55	Spectrally similar periodic and non-periodic optic flows evoke different postural sway responses. <i>Gait and Posture</i> , 2006, 23, 180-188.	1.4	23
56	The effect of age on postural and cognitive task performance while using vibrotactile feedback. <i>Journal of Neurophysiology</i> , 2015, 113, 2127-2136.	1.8	22
57	Changes in cerebral activation in individuals with and without visual vertigo during optic flow: A functional near-infrared spectroscopy study. <i>NeuroImage: Clinical</i> , 2018, 20, 655-663.	2.7	22
58	Effect of Electromyogram-Force Relationships and Method of Gain Estimation on the Predictions of an Electromyogram-Driven Model of Spinal Loading. <i>Spine</i> , 1998, 23, 423-429.	2.0	21
59	Eye Movements, Dizziness, and Mild Traumatic Brain Injury (mTBI): A Topical Review of Emerging Evidence and Screening Measures. <i>Journal of Neurologic Physical Therapy</i> , 2019, 43, S31-S36.	1.4	21
60	Lateral step initiation behavior in older adults. <i>Gait and Posture</i> , 2014, 39, 799-803.	1.4	20
61	Standing balance and strength measurements in older adults living in residential care communities. <i>Aging Clinical and Experimental Research</i> , 2017, 29, 1021-1030.	2.9	18
62	Functional imaging of cognition in an old-old population: A case for portable functional near-infrared spectroscopy. <i>PLoS ONE</i> , 2017, 12, e0184918.	2.5	17
63	Contributions to lateral balance control in ambulatory older adults. <i>Aging Clinical and Experimental Research</i> , 2018, 30, 633-641.	2.9	17
64	Determination of the effect of lift characteristics on dynamic performance profiles during manual materials handling tasks. <i>Ergonomics</i> , 1999, 42, 126-145.	2.1	16
65	Gray Matter Regions Associated With Functional Mobility in Community-Dwelling Older Adults. <i>Journal of the American Geriatrics Society</i> , 2020, 68, 1023-1028.	2.6	16
66	Acrophobia and pathological height vertigo: indications for vestibular physical therapy?. <i>Physical Therapy</i> , 2005, 85, 443-58.	2.4	16
67	Generalizability of trunk muscle EMG and spinal forces. <i>IEEE Engineering in Medicine and Biology Magazine</i> , 2001, 20, 72-81.	0.8	15
68	The use of virtual reality for people with balance and vestibular disorders: the Pittsburgh experience. <i>Physical Therapy Reviews</i> , 2009, 14, 299-306.	0.8	15
69	Predictors of Functional and Gait Outcomes for Persons Poststroke Undergoing Home-based Rehabilitation. <i>Journal of Stroke and Cerebrovascular Diseases</i> , 2014, 23, 1856-1864.	1.6	15
70	iPod-based in-home system for monitoring gaze-stabilization exercise compliance of individuals with vestibular hypofunction. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2014, 11, 69.	4.6	15
71	Functional near-infrared spectroscopy during optic flow with and without fixation. <i>PLoS ONE</i> , 2018, 13, e0193710.	2.5	15
72	Tympanostomy Tube Placement and Vestibular Function in Children. <i>Otolaryngology - Head and Neck Surgery</i> , 2011, 145, 666-672.	1.9	13

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73	Postural adjustment errors during lateral step initiation in older and younger adults. <i>Experimental Brain Research</i> , 2014, 232, 3977-3989.	1.5	13
74	The Effect of Lifting Belt Use on Multijoint Motion and Load Bearing During Repetitive and Asymmetric Lifting. <i>Journal of Spinal Disorders</i> , 1998, 11, 57-64.	1.1	12
75	Detecting postural responses to sinusoidal sensory inputs: a statistical approach. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2004, 12, 360-366.	4.9	12
76	Contribution of Vision to Balance in Children Four to Eight Years of Age. <i>Annals of Otolaryngology, Rhinology and Laryngology</i> , 2007, 116, 653-657.	1.1	12
77	Delays in auditory-cued step initiation are related to increased volume of white matter hyperintensities in older adults. <i>Experimental Brain Research</i> , 2008, 188, 633-640.	1.5	12
78	A Quality Improvement Project in Balance and Vestibular Rehabilitation and Its Effect on Clinical Outcomes. <i>Journal of Neurologic Physical Therapy</i> , 2016, 40, 90-99.	1.4	11
79	Psychometric properties of instrumented postural sway measures recorded in community settings in independent living older adults. <i>BMC Geriatrics</i> , 2020, 20, 82.	2.7	11
80	Feature extraction and quantification of the variability of dynamic performance profiles due to the different sagittal lift characteristics. <i>IEEE Transactions on Rehabilitation Engineering: A Publication of the IEEE Engineering in Medicine and Biology Society</i> , 1999, 7, 278-288.	1.4	10
81	An Electromyography-Assisted Model to Estimate Trunk Muscle Forces During Fatiguing Repetitive Trunk Exertions. <i>Journal of Spinal Disorders</i> , 1999, 12, 509-518.	1.1	9
82	An investigation of fMRI time series stationarity during motor sequence learning foot tapping tasks. <i>Journal of Neuroscience Methods</i> , 2014, 227, 75-82.	2.5	9
83	Effect of home-based rehabilitation on activities of daily living and gait in older adults with heart failure at risk for falling: A retrospective cohort study. <i>Physiotherapy Theory and Practice</i> , 2017, 33, 943-953.	1.3	9
84	Reliability and Validity of Ratings of Perceived Difficulty During Performance of Static Standing Balance Exercises. <i>Physical Therapy</i> , 2019, 99, 1381-1393.	2.4	9
85	Exploratory Factor Analysis of the Vestibular Activities Avoidance Instrument. <i>JAMA Otolaryngology - Head and Neck Surgery</i> , 2021, 147, 144.	2.2	9
86	Fear Avoidance Beliefs Are Associated With Perceived Disability in Persons With Vestibular Disorders. <i>Physical Therapy</i> , 2021, 101, .	2.4	9
87	Head sway response to optic flow: Effect of age is more important than the presence of unilateral vestibular hypofunction. <i>Journal of Vestibular Research: Equilibrium and Orientation</i> , 2006, 16, 137-145.	2.0	9
88	Effect of Community-Based Group Exercise Interventions on Standing Balance and Strength in Independent Living Older Adults. <i>Journal of Geriatric Physical Therapy</i> , 2019, 42, E7-E15.	1.1	8
89	Neuroimaging correlates of lateral postural control in older ambulatory adults. <i>Aging Clinical and Experimental Research</i> , 2019, 31, 611-619.	2.9	7
90	The reliability and validity of a lift simulator and its functional equivalence with free weight lifting tasks. <i>IEEE Transactions on Rehabilitation Engineering: A Publication of the IEEE Engineering in Medicine and Biology Society</i> , 1995, 3, 155-164.	1.4	6

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91	QUANTIFICATION OF DIRECTION AND MAGNITUDE OF CYCLICAL POSTURAL SWAY USING ELLIPSES. Biomedical Engineering - Applications, Basis and Communications, 2001, 13, 213-217.	0.6	6
92	Vestibular rehabilitation using a wide field of view virtual environment. , 2004, 2004, 4836-9.		6
93	Medial-lateral postural control in older adults exhibits increased stiffness and damping. , 2009, 2009, 7006-9.		6
94	Symptoms elicited in persons with vestibular dysfunction while performing gaze movements in optic flow environments <sup>1</sup> . Journal of Vestibular Research: Equilibrium and Orientation, 2013, 23, 51-60.	2.0	6
95	The Use of Vibrotactile Feedback During Dual-Task Standing Balance Conditions in People With Unilateral Vestibular Hypofunction. Otology and Neurotology, 2018, 39, e349-e356.	1.3	6
96	Shared neural substrates of cognitive function and postural control in older adults. Alzheimer's and Dementia, 2020, 16, 621-629.	0.8	6
97	The Gaze Stabilization Test Following Concussion. Journal of the American Academy of Audiology, 2018, , .	0.7	6
98	Perceptual and Motor Inhibition in Individuals With Vestibular Disorders. Journal of Neurologic Physical Therapy, 2010, 34, 76-81.	1.4	5
99	The Effect of Auditory Cueing on the Spatial and Temporal Gait Coordination in Healthy Adults. Journal of Motor Behavior, 2019, 51, 25-31.	0.9	5
100	The Effect of a Verbal Cognitive Task on Postural Sway Does Not Persist When the Task Is Over. Sensors, 2021, 21, 8428.	3.8	5
101	The Effect of Optotype Size and Velocity Parameters on the Performance of Healthy Young Adult Subjects on the Gaze Stabilization Test. Otology and Neurotology, 2013, 34, 1090-1095.	1.3	4
102	Impact of strength and balance on Functional Gait Assessment performance in older adults. Gait and Posture, 2022, 91, 306-311.	1.4	4
103	Head sway response to optic flow: effect of age is more important than the presence of unilateral vestibular hypofunction. Journal of Vestibular Research: Equilibrium and Orientation, 2006, 16, 137-45.	2.0	4
104	Perception of verticality is altered in people with severe chronic low back pain compared to healthy controls: A cross-sectional study. Musculoskeletal Science and Practice, 2020, 45, 102074.	1.3	3
105	Interpersonal interactions for haptic guidance during balance exercises. Gait and Posture, 2018, 65, 129-136.	1.4	2
106	The adaptations to fatigue during a repetitive lifting test. , 0, , .		1
107	Relation between ability to track force during dual tasking and function in individuals with Parkinson's disease. , 2009, , .		1
108	Vestibular Dysfunction Associated With Mild Traumatic Brain Injury (mTBI). , 2019, , 133-148.		1

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109	Psychometric Properties of Lower Extremity Strength Measurements Recorded in Community Settings in Independent Living Older Adults. <i>Experimental Aging Research</i> , 2019, 45, 282-292.	1.2	1
110	Quadriceps fatigue test: Test-retest reliability study and relationship to quadriceps activation failure. <i>Physiotherapy Practice and Research</i> , 2015, 36, 65-72.	0.1	0
111	Utility Of An Incongruent Visual, Cognitive-balance Dual Task To Assess Impairment In Athletes With Concussion. <i>Medicine and Science in Sports and Exercise</i> , 2016, 48, 653.	0.4	0