

Bradford J Mcfadyen

List of Publications by Year in descending order

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133
papers

7,336
citations

81743

39
h-index

60497

81
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135
all docs

135
docs citations

135
times ranked

7267
citing authors

#	ARTICLE	IF	CITATIONS
1	Traumatic brain injury: integrated approaches to improve prevention, clinical care, and research. <i>Lancet Neurology</i> , The, 2017, 16, 987-1048.	4.9	1,571
2	An integrated biomechanical analysis of normal stair ascent and descent. <i>Journal of Biomechanics</i> , 1988, 21, 733-744.	0.9	570
3	Frontal and sagittal plane analyses of the stair climbing task in healthy adults aged over 40 years: what are the challenges compared to level walking?. <i>Clinical Biomechanics</i> , 2003, 18, 950-959.	0.5	290
4	Scapular behavior in shoulder impingement syndrome. <i>Archives of Physical Medicine and Rehabilitation</i> , 2002, 83, 60-69.	0.5	239
5	A Treadmill and Motion Coupled Virtual Reality System for Gait Training Post-Stroke. <i>Cyberpsychology, Behavior and Social Networking</i> , 2006, 9, 157-162.	2.2	228
6	Three-dimensional gait analysis in women with a total hip arthroplasty. <i>Clinical Biomechanics</i> , 2000, 15, 504-515.	0.5	205
7	The Negotiation of Stationary and Moving Obstructions during Walking: Anticipatory Locomotor Adaptations and Preservation of Personal Space. <i>Motor Control</i> , 2005, 9, 242-269.	0.3	166
8	The development of coordination for reach-to-grasp movements in children. <i>Experimental Brain Research</i> , 2002, 146, 142-154.	0.7	152
9	Reaching in reality and virtual reality: a comparison of movement kinematics in healthy subjects and in adults with hemiparesis. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2004, 1, 11.	2.4	149
10	The effect of foot position and chair height on the asymmetry of vertical forces during sit-to-stand and stand-to-sit tasks in individuals with hemiparesis. <i>Clinical Biomechanics</i> , 2006, 21, 585-593.	0.5	133
11	Efficacy of virtual reality-based intervention on balance and mobility disorders post-stroke: a scoping review. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2015, 12, 46.	2.4	133
12	Modulation of walking speed by changing optic flow in persons with stroke. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2007, 4, 22.	2.4	119
13	When is Vestibular Information Important During Walking?. <i>Journal of Neurophysiology</i> , 2004, 92, 1269-1275.	0.9	117
14	Characteristics of personal space during obstacle circumvention in physical and virtual environments. <i>Gait and Posture</i> , 2008, 27, 239-247.	0.6	112
15	Virtual reality environments for post-stroke arm rehabilitation. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2007, 4, 20.	2.4	99
16	Magnitude effects of galvanic vestibular stimulation on the trajectory of human gait. <i>Neuroscience Letters</i> , 2000, 279, 157-160.	1.0	92
17	Avoidance and Accommodation of Surface Height Changes by Healthy, Community-Dwelling, Young, and Elderly Men. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2002, 57, B166-B174.	1.7	89
18	Is combining gait retraining or an exercise programme with education better than education alone in treating runners with patellofemoral pain? A randomised clinical trial. <i>British Journal of Sports Medicine</i> , 2018, 52, 659-666.	3.1	81

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19	Locomotor adjustments for circumvention of an obstacle in the travel path. <i>Experimental Brain Research</i> , 2003, 152, 409-414.	0.7	80
20	Altered Integrated Locomotor and Cognitive Function in Elite Athletes 30 Days Postconcussion. <i>Journal of Head Trauma Rehabilitation</i> , 2013, 28, 293-301.	1.0	77
21	Modification of the sit-to-stand task with the addition of gait initiation. <i>Gait and Posture</i> , 1996, 4, 232-241.	0.6	76
22	The circumvention of obstacles during walking in different environmental contexts: A comparison between older and younger adults. <i>Gait and Posture</i> , 2006, 24, 364-369.	0.6	76
23	Side difference in the hip and knee joint moments during sit-to-stand and stand-to-sit tasks in individuals with hemiparesis. <i>Clinical Biomechanics</i> , 2007, 22, 795-804.	0.5	76
24	Residual Effects of a Traumatic Brain Injury on Locomotor Capacity. <i>Journal of Head Trauma Rehabilitation</i> , 2003, 18, 512-525.	1.0	72
25	Anticipatory locomotor adjustments for accommodating versus avoiding level changes in humans. <i>Experimental Brain Research</i> , 1997, 114, 500-506.	0.7	69
26	Complementary mechanisms for upright balance during walking. <i>PLoS ONE</i> , 2017, 12, e0172215.	1.1	63
27	Transfer strategies used to rise from a chair in normal and low back pain subjects. <i>Clinical Biomechanics</i> , 1994, 9, 85-92.	0.5	62
28	Effects of Environmental Demands on Locomotion After Traumatic Brain Injury. <i>Archives of Physical Medicine and Rehabilitation</i> , 2006, 87, 806-813.	0.5	62
29	Upper limb motor strategies in persons with and without shoulder impingement syndrome across different speeds of movement. <i>Clinical Biomechanics</i> , 2008, 23, 1227-1236.	0.5	62
30	Kinematics of Pointing Movements Made in a Virtual Versus a Physical 3-Dimensional Environment in Healthy and Stroke Subjects. <i>Archives of Physical Medicine and Rehabilitation</i> , 2009, 90, 793-802.	0.5	62
31	Children use different anticipatory control strategies than adults to circumvent an obstacle in the travel path. <i>Experimental Brain Research</i> , 2005, 167, 119-127.	0.7	56
32	Visuomotor control when reaching toward and grasping moving targets. <i>Acta Psychologica</i> , 1996, 92, 17-32.	0.7	52
33	Vestibular Contributions during Human Locomotor Tasks. <i>Exercise and Sport Sciences Reviews</i> , 2005, 33, 107-113.	1.6	49
34	Traumatic brain injury and post-acute decline: what role does environmental enrichment play? A scoping review. <i>Frontiers in Human Neuroscience</i> , 2013, 7, 31.	1.0	48
35	Running gait impulse asymmetries in below-knee amputees. <i>Prosthetics and Orthotics International</i> , 1992, 16, 19-24.	0.5	45
36	A kinematic and kinetic analysis of locomotion during voluntary gait modification in the cat. <i>Experimental Brain Research</i> , 1995, 106, 39-56.	0.7	45

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37	Visual-vestibular interactions in postural control during the execution of a dynamic task. <i>Experimental Brain Research</i> , 2002, 146, 490-500.	0.7	45
38	A Preliminary Study to Identify Locomotor-Cognitive Dual Tasks That Reveal Persistent Executive Dysfunction After Mild Traumatic Brain Injury. <i>Archives of Physical Medicine and Rehabilitation</i> , 2014, 95, 1594-1597.	0.5	43
39	Guidelines for Gait Assessments in the Canadian Consortium on Neurodegeneration in Aging (CCNA). <i>Canadian Geriatrics Journal</i> , 2018, 21, 157-165.	0.7	43
40	Anticipatory locomotor adjustments for avoiding visible, fixed obstacles of varying proximity. <i>Human Movement Science</i> , 1993, 12, 259-272.	0.6	40
41	Can measures of cognitive function predict locomotor behaviour in complex environments following a traumatic brain injury?. <i>Brain Injury</i> , 2007, 21, 327-334.	0.6	40
42	Vestibular contributions across the execution of a voluntary forward step. <i>Experimental Brain Research</i> , 2002, 143, 100-105.	0.7	39
43	Aging affects the ability to use optic flow in the control of heading during locomotion. <i>Experimental Brain Research</i> , 2009, 194, 183-190.	0.7	39
44	Extracting phase-dependent human vestibular reflexes during locomotion using both time and frequency correlation approaches. <i>Journal of Applied Physiology</i> , 2011, 111, 1484-1490.	1.2	39
45	Anticipatory locomotor control for obstacle avoidance in mid-childhood aged children. <i>Gait and Posture</i> , 2001, 13, 7-16.	0.6	37
46	A Virtual Reality avatar interaction (VRai) platform to assess residual executive dysfunction in active military personnel with previous mild traumatic brain injury: proof of concept. <i>Disability and Rehabilitation: Assistive Technology</i> , 2017, 12, 758-764.	1.3	37
47	Assessing Mobility and Locomotor Coordination after Stroke with the Rise-to-Walk Task. <i>Neurorehabilitation and Neural Repair</i> , 2003, 17, 83-92.	1.4	36
48	Modality-Specific, Multitask Locomotor Deficits Persist Despite Good Recovery After a Traumatic Brain Injury. <i>Archives of Physical Medicine and Rehabilitation</i> , 2009, 90, 1596-1606.	0.5	36
49	Movement patterns and muscular demands during posterior transfers toward an elevated surface in individuals with spinal cord injury. <i>Spinal Cord</i> , 2005, 43, 74-84.	0.9	35
50	The ability of the Biodex Stability System to distinguish level of function in subjects with a second-degree ankle sprain. <i>Clinical Rehabilitation</i> , 2007, 21, 73-81.	1.0	35
51	Alterations to locomotor navigation in a complex environment at 7 and 30 days following a concussion in an elite athlete. <i>Brain Injury</i> , 2009, 23, 362-369.	0.6	35
52	Effects of walking in a force field for varying durations on aftereffects and on next day performance. <i>Experimental Brain Research</i> , 2009, 199, 145-155.	0.7	34
53	A fluidity scale for evaluating the motor strategy of the rise-to-walk task after stroke. <i>Clinical Rehabilitation</i> , 2003, 17, 674-684.	1.0	33
54	Design and Accuracy of an Instrumented Insole Using Pressure Sensors for Step Count. <i>Sensors</i> , 2019, 19, 984.	2.1	33

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55	A method of measuring three-dimensional scapular attitudes using the Optotrak probing system. <i>Clinical Biomechanics</i> , 2000, 15, 1-8.	0.5	32
56	Head, arm and trunk coordination during reaching in children. <i>Experimental Brain Research</i> , 2008, 188, 237-247.	0.7	32
57	Normative childhood EMG gait patterns. <i>Journal of Orthopaedic Research</i> , 1987, 5, 283-295.	1.2	31
58	Kinetic and energetic patterns for hindlimb obstacle avoidance during cat locomotion. <i>Experimental Brain Research</i> , 1999, 125, 502-510.	0.7	31
59	Dual task effects for asymmetric stepping on a split-belt treadmill. <i>Gait and Posture</i> , 2009, 30, 340-344.	0.6	31
60	Validity of Instrumented Insoles for Step Counting, Posture and Activity Recognition: A Systematic Review. <i>Sensors</i> , 2019, 19, 2438.	2.1	31
61	Repeated split-belt treadmill walking improved gait ability in individuals with chronic stroke: A pilot study. <i>Physiotherapy Theory and Practice</i> , 2018, 34, 81-90.	0.6	30
62	Upper Limb Obstacle Avoidance Behavior in Individuals With Stroke. <i>Neurorehabilitation and Neural Repair</i> , 2017, 31, 133-146.	1.4	28
63	Executive dysfunction following a mild traumatic brain injury revealed in early adolescence with locomotor-cognitive dual-tasks. <i>Brain Injury</i> , 2016, 30, 1648-1655.	0.6	27
64	The combined control of locomotion and prehension. <i>Neuroscience Research Communications</i> , 1996, 19, 91-100.	0.2	26
65	Stroke Affects Locomotor Steering Responses to Changing Optic Flow Directions. <i>Neurorehabilitation and Neural Repair</i> , 2010, 24, 457-468.	1.4	26
66	The division of visual attention affects the transition point from level walking to stair descent in healthy, active older adults. <i>Experimental Gerontology</i> , 2014, 50, 26-33.	1.2	26
67	Using dual task walking as an aid to assess executive dysfunction ecologically in neurological populations: A narrative review. <i>Neuropsychological Rehabilitation</i> , 2017, 27, 722-743.	1.0	26
68	Real-time modulation of visual feedback on human full-body movements in a virtual mirror: development and proof-of-concept. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2015, 12, 2.	2.4	24
69	The reliability of three-dimensional scapular attitudes in healthy people and people with shoulder impingement syndrome. <i>BMC Musculoskeletal Disorders</i> , 2007, 8, 49.	0.8	21
70	Segmental control for adaptive locomotor adjustments during obstacle clearance in healthy young adults. <i>Experimental Brain Research</i> , 2010, 202, 307-318.	0.7	21
71	Arm movements during split-belt walking reveal predominant patterns of interlimb coupling. <i>Human Movement Science</i> , 2013, 32, 79-90.	0.6	21
72	Kinematic Adaptations of Spinal Cord-Injured Subjects during Obstructed Walking. <i>Neurorehabilitation and Neural Repair</i> , 2003, 17, 25-31.	1.4	20

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73	Is the use of vestibular information weighted differently across the initiation of walking?. <i>Experimental Brain Research</i> , 2004, 157, 407-16.	0.7	20
74	Footwear characteristics are related to running mechanics in runners with patellofemoral pain. <i>Gait and Posture</i> , 2017, 54, 144-147.	0.6	20
75	Impact of movement training on upper limb motor strategies in persons with shoulder impingement syndrome. <i>BMC Sports Science, Medicine and Rehabilitation</i> , 2009, 1, 8.	0.7	19
76	Visual-vestibular influences on locomotor adjustments for stepping over an obstacle. <i>Experimental Brain Research</i> , 2007, 179, 235-243.	0.7	18
77	The effects of unsupervised movement training with visual feedback on upper limb kinematic in persons with shoulder impingement syndrome. <i>Journal of Electromyography and Kinesiology</i> , 2010, 20, 939-946.	0.7	18
78	Navigational strategies during fast walking: A comparison between trained athletes and non-athletes. <i>Gait and Posture</i> , 2007, 26, 539-545.	0.6	16
79	Assessing the Perception of Trunk Movements in Military Personnel with Chronic Non-Specific Low Back Pain Using a Virtual Mirror. <i>PLoS ONE</i> , 2015, 10, e0120251.	1.1	16
80	Collision avoidance behaviours when circumventing people of different sizes in various positions and locations. <i>Journal of Motor Behavior</i> , 2021, 53, 166-175.	0.5	16
81	The detailed measurement of foot clearance by young adults during stair descent. <i>Journal of Biomechanics</i> , 2013, 46, 1400-1402.	0.9	15
82	Increasing Task Complexity and ICE Hockey Skills of Youth Athletes. <i>Perceptual and Motor Skills</i> , 2011, 112, 29-43.	0.6	14
83	Use of Segmental Coordination Analysis of Nonparetic and Paretic Limbs During Obstacle Clearance in Community-Dwelling Persons After Stroke. <i>PM and R</i> , 2013, 5, 381-391.	0.9	14
84	A PRELIMINARY ANALYSIS OF THE COORDINATION OF REACHING, GRASPING, AND WALKING. <i>Perceptual and Motor Skills</i> , 1995, 81, 515-519.	0.6	13
85	Changes in lower limb muscle activity after walking on a split-belt treadmill in individuals post-stroke. <i>Journal of Electromyography and Kinesiology</i> , 2017, 32, 93-100.	0.7	13
86	Adaptability of the CNS in Human Walking. <i>Advances in Psychology</i> , 1991, 78, 127-144.	0.1	12
87	Acute Physical Exercise Affects Cognitive Functioning in Children With Cerebral Palsy. <i>Pediatric Exercise Science</i> , 2016, 28, 304-311.	0.5	12
88	Gait Training after Stroke on a Self-Paced Treadmill with and without Virtual Environment Scenarios: A Proof-of-Principle Study. <i>Physiotherapy Canada Physiotherapie Canada</i> , 2018, 70, 221-230.	0.3	12
89	Adding Haptic Feedback to Virtual Environments With a Cable-Driven Robot Improves Upper Limb Spatio-Temporal Parameters During a Manual Handling Task. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2020, 28, 2246-2254.	2.7	12
90	Adaptations in Bilateral Mechanical Power Patterns during Obstacle Avoidance Reveal Distinct Control Strategies for Limb Elevation versus Limb Progression. <i>Motor Control</i> , 2004, 8, 160-173.	0.3	11

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91	Increased Obstacle Clearance in People with ARCA-1 Results in Part from Voluntary Coordination Changes Between the Thigh and Shank Segments. <i>Cerebellum</i> , 2011, 10, 732-744.	1.4	11
92	Virtual reality-based assessment of cognitive-locomotor interference in healthy young adults. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2021, 18, 53.	2.4	11
93	Effects of Age on Obstacle Avoidance while Walking and Deciphering Text versus Audio Phone Messages. <i>Gerontology</i> , 2019, 65, 524-536.	1.4	10
94	Effects of physical activity level on unobstructed and obstructed walking in young male adults. <i>Gait and Posture</i> , 2005, 22, 75-81.	0.6	9
95	The regulation of vestibular afferent information during monocular vision while standing. <i>Neuroscience Letters</i> , 2008, 441, 253-256.	1.0	9
96	Split-second decisions on a split belt: does simulated limping affect obstacle avoidance?. <i>Experimental Brain Research</i> , 2012, 223, 33-42.	0.7	9
97	Comparison of gait between young adults fitted with the space foot and nondisabled persons. <i>Archives of Physical Medicine and Rehabilitation</i> , 1993, 74, 1369-1376.	0.5	8
98	The kinematics of upper extremity reaching: a reliability study on people with and without shoulder impingement syndrome. <i>BMC Sports Science, Medicine and Rehabilitation</i> , 2010, 2, 8.	0.7	8
99	Reading text messages at different stages of pedestrian circumvention affects strategies for collision avoidance in young and older adults. <i>Gait and Posture</i> , 2020, 76, 290-297.	0.6	8
100	The Organization of Stepping in Patients with Parkinson's Disease: Bradykinesia or Discoordination?. <i>Canadian Journal of Neurological Sciences</i> , 1992, 19, 8-16.	0.3	7
101	A Preliminary Analysis of the Coordination of Reaching, Grasping, and Walking. <i>Perceptual and Motor Skills</i> , 1995, 81, 515-519.	0.6	7
102	On the Design of a Novel Cable-Driven Parallel Robot Capable of Large Rotation About One Axis. <i>Mechanisms and Machine Science</i> , 2018, , 390-401.	0.3	7
103	The Canadian Pediatric Mild Traumatic Brain Injury Common Data Elements Project: Harmonizing Outcomes to Increase Understanding of Pediatric Concussion. <i>Journal of Neurotrauma</i> , 2018, 35, 1849-1857.	1.7	7
104	Limb movements of another pedestrian affect crossing distance but not path planning during virtual over ground circumvention. <i>Neuroscience Letters</i> , 2020, 736, 135278.	1.0	7
105	Comparison of kinetic strategies for avoidance of an obstacle with either the paretic or non-paretic as leading limb in persons post stroke. <i>Gait and Posture</i> , 2015, 42, 329-334.	0.6	6
106	Phone messages affect the detection of approaching pedestrians in healthy young and older adults immersed in a virtual community environment. <i>PLoS ONE</i> , 2019, 14, e0217062.	1.1	6
107	Methodological Insights into the Scientific Development of Design Guidelines for Accessible Urban Pedestrian Infrastructure. <i>Journal of Urban Technology</i> , 2020, 27, 87-105.	2.5	6
108	Mobile phone use impairs stair gait: A pilot study on young adults. <i>Applied Ergonomics</i> , 2020, 84, 103009.	1.7	6

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109	Substituting anticipatory locomotor adjustments online is time constrained. <i>Experimental Brain Research</i> , 2018, 236, 1985-1996.	0.7	5
110	Community-dwelling older adults with mild cognitive impairments show subtle visual attention costs when descending stairs. <i>Human Movement Science</i> , 2020, 69, 102561.	0.6	5
111	Dual-Task Abilities During Activities Representative of Daily Life in Community-Dwelling Stroke Survivors: A Pilot Study. <i>Frontiers in Neurology</i> , 2022, 13, 855226.	1.1	5
112	A geometric analysis of muscle mechanical power with applications to human gait. <i>Journal of Biomechanics</i> , 1994, 27, 1189-1193.	0.9	4
113	Disability, Rehabilitation Research and Post-Cartesian Embodied Ontologies – Has the Research Paradigm Changed?. <i>Research in Social Science and Disability</i> , 2014, , 73-102.	0.1	4
114	Visuo-locomotor coordination for direction changes in a manual wheelchair as compared to biped locomotion in healthy subjects. <i>Neuroscience Letters</i> , 2015, 588, 83-87.	1.0	4
115	Visuo-locomotor control in persons with spinal cord injury in a manual or power wheelchair for direction change and obstacle circumvention. <i>Experimental Brain Research</i> , 2017, 235, 2669-2678.	0.7	4
116	A Computer Vision System for Virtual Rehabilitation. , 2017, , .		4
117	Modeling spatial navigation in the presence of dynamic obstacles: a differential games approach. <i>Journal of Neurophysiology</i> , 2018, 119, 990-1004.	0.9	4
118	Development of a virtual reality toolkit to enhance community walking after stroke. , 2019, , .		4
119	Performance during dual-task walking in a corridor after mild traumatic brain injury: A potential functional marker to assist return-to-function decisions. <i>Brain Injury</i> , 2021, 35, 173-179.	0.6	4
120	Body’s foot geometries as revealed by perturbed obstacle position with different time constraints. <i>Experimental Brain Research</i> , 2018, 236, 711-720.	0.7	3
121	Poster 7. <i>Archives of Physical Medicine and Rehabilitation</i> , 2003, 84, E7.	0.5	2
122	Proximal lower limb muscle energetics and the adaptation of segment elevation angle phasing for obstacle avoidance. <i>Gait and Posture</i> , 2013, 37, 274-279.	0.6	2
123	Research Priorities for Optimizing Long-term Community Integration after Brain Injury. <i>Canadian Journal of Neurological Sciences</i> , 2018, 45, 643-651.	0.3	2
124	The Switching of Trailing Limb Anticipatory Locomotor Adjustments is Uninfluenced by what the Leading Limb Does, but General Time Constraints Remain. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 2256.	1.3	2
125	A prediction model of multiple resource theory for dual task walking. <i>Theoretical Issues in Ergonomics Science</i> , 0, , 1-24.	1.0	2
126	Infographic: treating runners with patellofemoral pain: appropriate education is key. <i>British Journal of Sports Medicine</i> , 2018, 52, 824.2-825.	3.1	1

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127	Alterations in dual-task walking persist two months after mild traumatic brain injury in young adults. <i>Journal of Concussion</i> , 2019, 3, 205970021987829.	0.2	1
128	Longitudinal Study on the Detection and Evaluation of Onset Mild Traumatic Brain Injury during Dual Motor and Cognitive Tasks. , 2015, , .		1
129	A neurokinetic view of bi-articular muscles and system constraints. <i>Human Movement Science</i> , 1989, 8, 357-362.	0.6	0
130	The superimposed adjustments for obstacle clearance and level-to-stair transition during normal human gait. <i>Journal of Biomechanics</i> , 1994, 27, 809.	0.9	0
131	Comments on "Stepping over an obstacle increases the motions and moments of the joints of the trailing limb in young adults". <i>Journal of Biomechanics</i> , 1997, 30, 1187.	0.9	0
132	The perspective of rehabilitation health care professionals regarding the clinical utility of a body-environment proximity measurement device. <i>Cogent Medicine</i> , 2019, 6, 1605722.	0.7	0
133	Three dimensional validation of an instrumented handrail for stair gait. <i>Medical Engineering and Physics</i> , 2020, 86, 16-19.	0.8	0