Jaap H Van Dien

List of Publications by Citations

567 papers	18,845 citations	69 h-index	109 g-index
636 ext. papers	22,164 ext. citations	3 avg, IF	7.08 L-index

#	Paper	IF	Citations
567	Trunk muscle activation in low-back pain patients, an analysis of the literature. *Journal of Electromyography and Kinesiology*, **2003**, 13, 333-51	2.5	426
566	Sitting comfort and discomfort and the relationships with objective measures. *Ergonomics*, **2003**, 46, 985-97	2.9	376
565	Pregnancy-related pelvic girdle pain (PPP), I: Terminology, clinical presentation, and prevalence. *European Spine Journal*, **2004**, 13, 575-89	2.7	372
564	Mechanics and biology in intervertebral disc degeneration: a vicious circle. *Osteoarthritis and Cartilage*, **2015**, 23, 1057-70	6.2	353
563	Assessing the stability of human locomotion: a review of current measures. *Journal of the Royal Society Interface*, **2013**, 10, 20120999	4.1	338
562	Identification of elderly fallers by muscle strength measures. *European Journal of Applied Physiology*, **2008**, 102, 585-92	3.4	300
561	Trunk Muscle Recruitment Patterns in Patients With Low Back Pain Enhance the Stability of the Lumbar Spine. *Spine*, **2003**, 28, 834-841	3.3	241
560	Kinematic measures for assessing gait stability in elderly individuals: a systematic review. *Journal of the Royal Society Interface*, **2011**, 8, 1682-98	4.1	229
559	Methodological aspects of SEMG recordings for force estimation--a tutorial and review. *Journal of Electromyography and Kinesiology*, **2010**, 20, 375-87	2.5	223
558	Pathophysiology of upper extremity muscle disorders. *Journal of Electromyography and Kinesiology*, **2006**, 16, 1-16	2.5	221
557	Local dynamic stability and variability of gait are associated with fall history in elderly subjects. *Gait and Posture*, **2012**, 36, 527-31	2.6	195
556	Push-off reactions in recovery after tripping discriminate young subjects, older non-fallers and older fallers. *Gait and Posture*, **2005**, 21, 388-94	2.6	189
555	Is slow walking more stable?. *Journal of Biomechanics*, **2009**, 42, 1506-1512	2.9	179
554	Stoop or squat: a review of biomechanical studies on lifting technique. *Clinical Biomechanics*, **1999**, 14, 685-96	2.2	169
553	Statistical precision and sensitivity of measures of dynamic gait stability. *Journal of Neuroscience Methods*, **2009**, 178, 327-33	3	160
552	The effects of arm swing on human gait stability. *Journal of Experimental Biology*, **2010**, 213, 3945-52	3	152
551	Pelvis-thorax coordination in the transverse plane during walking in persons with nonspecific low back pain. *Spine*, **2002**, 27, E92-9	3.3	148

550	Comparison of a laboratory grade force platform with a Nintendo Wii Balance Board on measurement of postural control in single-leg stance balance tasks. *Journal of Biomechanics*, **2013**, 46, 1392-5	2.9	147
549	Effects of dynamic office chairs on trunk kinematics, trunk extensor EMG and spinal shrinkage. *Ergonomics*, **2001**, 44, 739-50	2.9	147
548	The effect of lifting during work on low back pain: a health impact assessment based on a meta-analysis. *Occupational and Environmental Medicine*, **2014**, 71, 871-7	2.1	146
547	Contribution of the support limb in control of angular momentum after tripping. *Journal of Biomechanics*, **2004**, 37, 1811-8	2.9	139
546	Thoracic kyphosis affects spinal loads and trunk muscle force. *Physical Therapy*, **2007**, 87, 595-607	3.3	138
545	Speeding up or slowing down?: Gait adaptations to preserve gait stability in response to balance perturbations. *Gait and Posture*, **2012**, 36, 260-4	2.6	137
544	Tripping without falling; lower limb strength, a limitation for balance recovery and a target for training in the elderly. *Journal of Electromyography and Kinesiology*, **2008**, 18, 188-96	2.5	137
543	Ambulatory fall-risk assessment: amount and quality of daily-life gait predict falls in older adults. *Journals of Gerontology - Series A Biological Sciences and Medical Sciences*, **2015**, 70, 608-15	6.4	133
542	Coordination of leg swing, thorax rotations, and pelvis rotations during gait: the organisation of total body angular momentum. *Gait and Posture*, **2008**, 27, 455-62	2.6	132
541	How early reactions in the support limb contribute to balance recovery after tripping. *Journal of Biomechanics*, **2005**, 38, 627-34	2.9	132
540	Prediction of handgrip forces using surface EMG of forearm muscles. *Journal of Electromyography and Kinesiology*, **2005**, 15, 358-66	2.5	130
539	Steps to take to enhance gait stability: the effect of stride frequency, stride length, and walking speed on local dynamic stability and margins of stability. *PLoS ONE*, **2013**, 8, e82842	3.7	127
538	Control of human gait stability through foot placement. *Journal of the Royal Society Interface*, **2018**, 15,	4.1	126
537	Armed against falls: the contribution of arm movements to balance recovery after tripping. *Experimental Brain Research*, **2010**, 201, 689-99	2.3	111
536	Improving EMG-based muscle force estimation by using a high-density EMG grid and principal component analysis. *IEEE Transactions on Biomedical Engineering*, **2006**, 53, 712-9	5	111
535	Cumulative low back load at work as a risk factor of low back pain: a prospective cohort study. *Journal of Occupational Rehabilitation*, **2013**, 23, 11-8	3.6	104
534	Trunk muscle recruitment patterns in patients with low back pain enhance the stability of the lumbar spine. *Spine*, **2003**, 28, 834-41	3.3	101
533	Assessing gait stability: the influence of state space reconstruction on inter- and intra-day reliability of local dynamic stability during over-ground walking. *Journal of Biomechanics*, **2013**, 46, 137-41	2.9	100

532	Mechanical loading of the low back and shoulders during pushing and pulling activities. *Ergonomics*, **2004**, 47, 1-18	2.9	99
531	Control of support limb muscles in recovery after tripping in young and older subjects. *Experimental Brain Research*, **2005**, 160, 326-33	2.3	99
530	Changes in walking pattern caused by the possibility of a tripping reaction. *Gait and Posture*, **2001**, 14, 11-8	2.6	99
529	Estimating fall risk with inertial sensors using gait stability measures that do not require step detection. *Gait and Posture*, **2013**, 38, 170-4	2.6	97
528	Effects of precision demands and mental pressure on muscle activation and hand forces in computer mouse tasks. *Ergonomics*, **2004**, 47, 202-17	2.9	93
527	Evidence for a role of antagonistic cocontraction in controlling trunk stiffness during lifting. *Journal of Biomechanics*, **2003**, 36, 1829-36	2.9	92
526	Static and dynamic postural loadings during computer work in females: Sitting on an office chair versus sitting on an exercise ball. *Applied Ergonomics*, **2009**, 40, 199-205	4.2	89
525	The effect of a passive trunk exoskeleton on functional performance in healthy individuals. *Applied Ergonomics*, **2018**, 72, 94-106	4.2	89
524	Effects of antagonistic co-contraction on differences between electromyography based and optimization based estimates of spinal forces. *Ergonomics*, **2005**, 48, 411-26	2.9	88
523	Daily-Life Gait Quality as Predictor of Falls in Older People: A 1-Year Prospective Cohort Study. *PLoS ONE*, **2016**, 11, e0158623	3.7	88
522	Mechanical coupling between transverse plane pelvis and thorax rotations during gait is higher in people with low back pain. *Journal of Biomechanics*, **2012**, 45, 342-7	2.9	84
521	The role of dorsal shear forces in the pathogenesis of adolescent idiopathic scoliosis--a hypothesis. *Medical Hypotheses*, **2005**, 65, 501-8	3.8	83
520	Foot positioning instruction, initial vertical load position and lifting technique: effects on low back loading. *Ergonomics*, **2004**, 47, 1365-85	2.9	83
519	Low back pain and postural sway during quiet standing with and without sensory manipulation: a systematic review. *Gait and Posture*, **2013**, 37, 12-22	2.6	82
518	Towards optimal multi-channel EMG electrode configurations in muscle force estimation: a high density EMG study. *Journal of Electromyography and Kinesiology*, **2005**, 15, 1-11	2.5	81
517	Can co-activation reduce kinematic variability? A simulation study. *Biological Cybernetics*, **2005**, 93, 373-81	1.8	80
516	Segment inertial parameter evaluation in two anthropometric models by application of a dynamic linked segment model. *Journal of Biomechanics*, **1996**, 29, 693-704	2.9	80
515	Removing ECG contamination from EMG recordings: a comparison of ICA-based and other filtering procedures. *Journal of Electromyography and Kinesiology*, **2012**, 22, 485-93	2.5	79

514	Effects of a passive exoskeleton on the mechanical loading of the low back in static holding tasks. *Journal of Biomechanics*, **2019**, 83, 97-103	2.9	79
513	Identification of fall risk predictors in daily life measurements: gait characteristics' reliability and association with self-reported fall history. *Neurorehabilitation and Neural Repair*, **2015**, 29, 54-61	4.7	76
512	Heterogeneity of muscle activation in relation to force direction: a multi-channel surface electromyography study on the triceps surae muscle. *Journal of Electromyography and Kinesiology*, **2009**, 19, 882-95	2.5	76
511	The effect of work pace on workload, motor variability and fatigue during simulated light assembly work. *Ergonomics*, **2011**, 54, 154-68	2.9	74
510	Muscle activity during the active straight leg raise (ASLR), and the effects of a pelvic belt on the ASLR and on treadmill walking. *Journal of Biomechanics*, **2010**, 43, 532-9	2.9	74
509	Fractures of the lumbar vertebral endplate in the etiology of low back pain: a hypothesis on the causative role of spinal compression in aspecific low back pain. *Medical Hypotheses*, **1999**, 53, 246-52	3.8	74
508	Age-related intrinsic limitations in preventing a trip and regaining balance after a trip. *Safety Science*, **2005**, 43, 437-453	5.8	73
507	Stability and variability of knee kinematics during gait in knee osteoarthritis before and after replacement surgery. *Clinical Biomechanics*, **2010**, 25, 230-6	2.2	72
506	In vitro biomechanical characteristics of the spine: a comparison between human and porcine spinal segments. *Spine*, **2010**, 35, E35-42	3.3	72
505	Gait coordination in pregnancy: transverse pelvic and thoracic rotations and their relative phase. *Clinical Biomechanics*, **2004**, 19, 480-8	2.2	71
504	Maximum Lyapunov exponents as predictors of global gait stability: a modelling approach. *Medical Engineering and Physics*, **2012**, 34, 428-36	2.4	70
503	A systematic review of the relationship between physical activities in sports or daily life and postural sway in upright stance. *Sports Medicine*, **2013**, 43, 1171-89	10.6	70
502	Stepping strategies for regulating gait adaptability and stability. *Journal of Biomechanics*, **2013**, 46, 905-11	2.9	70
501	Low-Back Pain Patients Learn to Adapt Motor Behavior With Adverse Secondary Consequences. *Exercise and Sport Sciences Reviews*, **2017**, 45, 223-229	6.7	70
500	The effect of osteoporotic vertebral fracture on predicted spinal loads in vivo. *European Spine Journal*, **2006**, 15, 1785-95	2.7	70
499	Coordination of the leg muscles in backlift and leglift. *Journal of Biomechanics*, **1992**, 25, 1279-89	2.9	70
498	Motor Control Changes in Low Back Pain: Divergence in Presentations and Mechanisms. *Journal of Orthopaedic and Sports Physical Therapy*, **2019**, 49, 370-379	4.2	69
497	Joint moments and muscle activity in the lower extremities and lower back in lifting and lowering tasks. *Journal of Biomechanics*, **1993**, 26, 1067-76	2.9	69

496	Physical Performance and Physical Activity in Older Adults: Associated but Separate Domains of Physical Function in Old Age. *PLoS ONE*, **2015**, 10, e0144048	3.7	69
495	Are recruitment patterns of the trunk musculature compatible with a synergy based on the maximization of endurance?. *Journal of Biomechanics*, **1997**, 30, 1095-100	2.9	68
494	Cumulative mechanical low-back load at work is a determinant of low-back pain. *Occupational and Environmental Medicine*, **2014**, 71, 332-7	2.1	66
493	Stepping strategies used by post-stroke individuals to maintain margins of stability during walking. *Clinical Biomechanics*, **2013**, 28, 1041-8	2.2	66
492	Impedance is modulated to meet accuracy demands during goal-directed arm movements. *Experimental Brain Research*, **2006**, 172, 129-38	2.3	66
491	Low-level activity of the trunk extensor muscles causes electromyographic manifestations of fatigue in absence of decreased oxygenation. *Journal of Electromyography and Kinesiology*, **2009**, 19, 398-406	2.5	65
490	Consensus for experimental design in electromyography (CEDE) project: Amplitude normalization matrix. *Journal of Electromyography and Kinesiology*, **2020**, 53, 102438	2.5	64
489	Sensitivity of trunk variability and stability measures to balance impairments induced by galvanic vestibular stimulation during gait. *Gait and Posture*, **2011**, 33, 656-60	2.6	64
488	Effect of lifting height and load mass on low back loading. *Ergonomics*, **2008**, 51, 1053-63	2.9	64
487	Postural sway parameters in seated balancing; their reliability and relationship with balancing performance. *Gait and Posture*, **2010**, 31, 42-6	2.6	62
486	Reduced neural drive in bilateral exertions: a performance-limiting factor?. *Medicine and Science in Sports and Exercise*, **2003**, 35, 111-8	1.2	62
485	Development of fatigue and discomfort in the upper trapezius muscle during light manual work. *Ergonomics*, **2007**, 50, 161-77	2.9	61
484	Gait in Pregnancy-related Pelvic girdle Pain: amplitudes, timing, and coordination of horizontal trunk rotations. *European Spine Journal*, **2008**, 17, 1160-9	2.7	60
483	Effects of EMG processing on biomechanical models of muscle joint systems: sensitivity of trunk muscle moments, spinal forces, and stability. *Journal of Biomechanics*, **2007**, 40, 900-9	2.9	59
482	Is There a Relationship Between Lumbar Proprioception and Low Back Pain? A Systematic Review With Meta-Analysis. *Archives of Physical Medicine and Rehabilitation*, **2017**, 98, 120-136.e2	2.8	57
481	Kinematic changes during running-induced fatigue and relations with core endurance in novice runners. *Journal of Science and Medicine in Sport*, **2014**, 17, 419-24	4.4	57
480	Effects of repetitive lifting on kinematics: inadequate anticipatory control or adaptive changes?. *Journal of Motor Behavior*, **1998**, 30, 20-32	1.4	57
479	Assessing physical activity in older adults: required days of trunk accelerometer measurements for reliable estimation. *Journal of Aging and Physical Activity*, **2015**, 23, 9-17	1.6	56

478	Optimal inertial sensor location for ambulatory measurement of trunk inclination. *Journal of Biomechanics*, **2009**, 42, 2406-9	2.9	56
477	Effects of dorsal versus ventral shear loads on the rotational stability of the thoracic spine: a biomechanical porcine and human cadaveric study. *Spine*, **2007**, 32, 2545-50	3.3	56
476	An investigation into the relevance of the pattern of temporal activation with respect to erector spinae muscle endurance. *European Journal of Applied Physiology and Occupational Physiology*, **1993**, 66, 70-5		56
475	Lumbar loading during lifting: a comparative study of three measurement techniques. *Journal of Electromyography and Kinesiology*, **2001**, 11, 337-45	2.5	55
474	Flexion relaxation during lifting: implications for torque production by muscle activity and tissue strain at the lumbo-sacral joint. *Journal of Biomechanics*, **1995**, 28, 199-210	2.9	55
473	Consistency of gait characteristics as determined from acceleration data collected at different trunk locations. *Gait and Posture*, **2014**, 40, 187-92	2.6	54
472	Quantifying intervertebral disc mechanics: a new definition of the neutral zone. *BMC Musculoskeletal Disorders*, **2011**, 12, 38	2.8	54
471	Factors Contributing to Chronic Ankle Instability: A Systematic Review and Meta-Analysis of Systematic Reviews. *Sports Medicine*, **2018**, 48, 189-205	10.6	51
470	Walking in an unstable environment: strategies used by transtibial amputees to prevent falling during gait. *Archives of Physical Medicine and Rehabilitation*, **2013**, 94, 2186-93	2.8	51
469	Effect of job rotation on need for recovery, musculoskeletal complaints, and sick leave due to musculoskeletal complaints: a prospective study among refuse collectors. *American Journal of Industrial Medicine*, **2005**, 47, 394-402	2.7	51
468	The electro-mechanical delay of the erector spinae muscle: influence of rate of force development, fatigue and electrode location. *European Journal of Applied Physiology and Occupational Physiology*, **1991**, 63, 216-22		51
467	Trunk extensor endurance and its relationship to electromyogram parameters. *European Journal of Applied Physiology and Occupational Physiology*, **1993**, 66, 388-96		51
466	Scaling anticipatory postural adjustments dependent on confidence of load estimation in a bi-manual whole-body lifting task. *Experimental Brain Research*, **1998**, 120, 85-94	2.3	50
465	Biomechanical characteristics of different regions of the human spine: an in vitro study on multilevel spinal segments. *Spine*, **2009**, 34, 2858-64	3.3	49
464	Disc herniations in astronauts: What causes them, and what does it tell us about herniation on earth?. *European Spine Journal*, **2016**, 25, 144-154	2.7	48
463	Ankle proprioception is not targeted by exercises on an unstable surface. *European Journal of Applied Physiology*, **2012**, 112, 1577-85	3.4	48
462	The effects of stride length and stride frequency on trunk coordination in human walking. *Gait and Posture*, **2010**, 31, 444-9	2.6	48
461	Fatigue-induced changes of impedance and performance in target tracking. *Experimental Brain Research*, **2007**, 181, 99-108	2.3	48

460	A research framework for the development and implementation of interventions preventing work-related musculoskeletal disorders. *Scandinavian Journal of Work, Environment and Health*, **2017**, 43, 526-539	4.3	48
459	Effect of arm swing strategy on local dynamic stability of human gait. *Gait and Posture*, **2015**, 41, 504-9	2.6	47
458	Estimating 3D L5/S1 moments and ground reaction forces during trunk bending using a full-body ambulatory inertial motion capture system. *Journal of Biomechanics*, **2016**, 49, 904-912	2.9	47
457	Manifestations of shoulder fatigue in prolonged activities involving low-force contractions. *Ergonomics*, **2009**, 52, 428-37	2.9	47
456	Postural control of the trunk during unstable sitting in Parkinson's disease. *Parkinsonism and Related Disorders*, **2006**, 12, 492-8	3.6	47
455	Impedance modulation and feedback corrections in tracking targets of variable size and frequency. *Journal of Neurophysiology*, **2006**, 96, 2750-9	3.2	47
454	The inertia tensor versus static moment and mass in perceiving length and heaviness of hand-wielded rods.. *Journal of Experimental Psychology: Human Perception and Performance*, **2002**, 28, 180-191	2.6	47
453	Intra-Rater, Inter-Rater and Test-Retest Reliability of an Instrumented Timed Up and Go (iTUG) Test in Patients with Parkinson's Disease. *PLoS ONE*, **2016**, 11, e0151881	3.7	47
452	Beta activity in the premotor cortex is increased during stabilized as compared to normal walking. *Frontiers in Human Neuroscience*, **2015**, 9, 593	3.3	46
451	The effect of a passive trunk exoskeleton on metabolic costs during lifting and walking. *Ergonomics*, **2019**, 62, 903-916	2.9	45
450	Precision control of trunk movement in low back pain patients. *Human Movement Science*, **2013**, 32, 228-39	2.1	45
449	Gait adaptations in low back pain patients with lumbar disc herniation: trunk coordination and arm swing. *European Spine Journal*, **2011**, 20, 491-9	2.7	45
448	How to lift a box that is too large to fit between the knees. *Ergonomics*, **2010**, 53, 1228-38	2.9	45
447	Intervertebral disc recovery after dynamic or static loading in vitro: is there a role for the endplate?. *Journal of Biomechanics*, **2007**, 40, 2230-5	2.9	45
446	Estimating dynamic gait stability using data from non-aligned inertial sensors. *Annals of Biomedical Engineering*, **2010**, 38, 2588-93	4.7	44
445	Lifting an unexpectedly heavy object: the effects on low-back loading and balance loss. *Clinical Biomechanics*, **2000**, 15, 469-77	2.2	44
444	Evaluation of work-rest schedules with respect to the effects of postural workload in standing work. *Ergonomics*, **1998**, 41, 1832-44	2.9	44
443	Central pain processing is altered in people with Achilles tendinopathy. *British Journal of Sports Medicine*, **2016**, 50, 1004-7	10.3	43

442	Consensus for experimental design in electromyography (CEDE) project: Electrode selection matrix. *Journal of Electromyography and Kinesiology*, **2019**, 48, 128-144	2.5	43
441	Validation of a Step Detection Algorithm during Straight Walking and Turning in Patients with Parkinson's Disease and Older Adults Using an Inertial Measurement Unit at the Lower Back. *Frontiers in Neurology*, **2017**, 8, 457	4.1	43
440	Asymmetric low back loading in asymmetric lifting movements is not prevented by pelvic twist. *Journal of Biomechanics*, **1998**, 31, 527-34	2.9	43
439	Proprioception of the shoulder after stroke. *Archives of Physical Medicine and Rehabilitation*, **2008**, 89, 333-8	2.8	43
438	Balance control in stepping down expected and unexpected level changes. *Journal of Biomechanics*, **2007**, 40, 3641-9	2.9	42
437	SPEXOR passive spinal exoskeleton decreases metabolic cost during symmetric repetitive lifting. *European Journal of Applied Physiology*, **2020**, 120, 401-412	3.4	42
436	The effect of control strategies for an active back-support exoskeleton on spine loading and kinematics during lifting. *Journal of Biomechanics*, **2019**, 91, 14-22	2.9	41
435	Effect of initial horizontal object position on peak L5/S1 moments in manual lifting is dependent on task type and familiarity with alternative lifting strategies. *Ergonomics*, **2011**, 54, 72-81	2.9	41
434	Working height, block mass and one- vs. two-handed block handling: the contribution to low back and shoulder loading during masonry work. *Ergonomics*, **2009**, 52, 1104-18	2.9	41
433	Sensitivity of single-equivalent trunk extensor muscle models to anatomical and functional assumptions. *Journal of Biomechanics*, **1999**, 32, 195-8	2.9	41
432	Reproducibility of isometric trunk extension torque, trunk extensor endurance, and related electromyographic parameters in the context of their clinical applicability. *Journal of Orthopaedic Research*, **1996**, 14, 139-43	3.8	41
431	Repetitive lifting and spinal shrinkage, effects of age and lifting technique. *Clinical Biomechanics*, **1994**, 9, 367-74	2.2	41
430	The Instrumented Sit-to-Stand Test (iSTS) Has Greater Clinical Relevance than the Manually Recorded Sit-to-Stand Test in Older Adults. *PLoS ONE*, **2016**, 11, e0157968	3.7	41
429	Low back pain history and postural sway in unstable sitting. *Spine*, **2010**, 35, 812-7	3.3	40
428	Abdominal muscles contribute in a minor way to peak spinal compression in lifting. *Journal of Biomechanics*, **1999**, 32, 655-62	2.9	40
427	Effect of acute noxious stimulation to the leg or back on muscle synergies during walking. *Journal of Neurophysiology*, **2015**, 113, 244-54	3.2	39
426	Interactions of age and leg muscle fatigue on unobstructed walking and obstacle crossing. *Gait and Posture*, **2014**, 39, 985-90	2.6	39
425	Identifying intrinsic and reflexive contributions to low-back stabilization. *Journal of Biomechanics*, **2013**, 46, 1440-6	2.9	39

424	Fatigue effects on tracking performance and muscle activity. *Journal of Electromyography and Kinesiology*, **2008**, 18, 410-9	2.5	39
423	Gastrocnemius muscle fascicle behavior during stair negotiation in humans. *Journal of Applied Physiology*, **2007**, 102, 1618-23	3.7	39
422	Gait in patients with pregnancy-related pain in the pelvis: an emphasis on the coordination of transverse pelvic and thoracic rotations. *Clinical Biomechanics*, **2002**, 17, 678-86	2.2	39
421	Within-subject variability in low back load in a repetitively performed, mildly constrained lifting task. *Spine*, **2001**, 26, 1799-804	3.3	39
420	Spectral analysis of erector spinae EMG during intermittent isometric fatiguing exercise. *Ergonomics*, **1993**, 36, 407-14	2.9	39
419	The use of the relation between relative force and endurance time. *Ergonomics*, **1994**, 37, 231-43	2.9	39
418	The effect of walking speed on quality of gait in older adults. *Gait and Posture*, **2018**, 65, 112-116	2.6	38
417	Stepping asymmetry among individuals with unilateral transtibial limb loss might be functional in terms of gait stability. *Physical Therapy*, **2014**, 94, 1480-8	3.3	38
416	Center of pressure trajectories, trunk kinematics and trunk muscle activation during unstable sitting in low back pain patients. *Gait and Posture*, **2013**, 38, 625-30	2.6	38
415	Effect of muscle fatigue and physical activity level in motor control of the gait of young adults. *Gait and Posture*, **2013**, 38, 702-7	2.6	38
414	Association of postural control with muscle strength, proprioception, self-reported knee instability and activity limitations in patients with knee osteoarthritis. *Journal of Rehabilitation Medicine*, **2013** , 45, 192-7	3.4	38
413	Effects of narrow base gait on mediolateral balance control in young and older adults. *Journal of Biomechanics*, **2016**, 49, 1264-1267	2.9	37
412	In vitro torsion-induced stress distribution changes in porcine intervertebral discs. *Spine*, **2001**, 26, 2582-6	3.3	37
411	Fall-related gait characteristics on the treadmill and in daily life. *Journal of NeuroEngineering and Rehabilitation*, **2016**, 13, 12	5.3	36
410	Observed differences in upper extremity forces, muscle efforts, postures, velocities and accelerations across computer activities in a field study of office workers. *Ergonomics*, **2012**, 55, 670-81	2.9	36
409	Lifting over an obstacle: effects of one-handed lifting and hand support on trunk kinematics and low back loading. *Journal of Biomechanics*, **2004**, 37, 249-55	2.9	36
408	Associations between measures of gait stability, leg strength and fear of falling. *Gait and Posture*, **2015**, 41, 76-80	2.6	35
407	Exercise-Based Fall Prevention in the Elderly: What About Agility?. *Sports Medicine*, **2016**, 46, 143-9	10.6	35

406	A systematic review of postural control during single-leg stance in patients with untreated anterior cruciate ligament injury. *Knee Surgery, Sports Traumatology, Arthroscopy*, **2014**, 22, 1491-504	5.5	35
405	The effects of workplace stressors on muscle activity in the neck-shoulder and forearm muscles during computer work: a systematic review and meta-analysis. *European Journal of Applied Physiology*, **2013**, 113, 2897-912	3.4	35
404	Arm swing in human walking: what is their drive?. *Gait and Posture*, **2014**, 40, 321-6	2.6	35
403	Understanding the Active Straight Leg Raise (ASLR): an electromyographic study in healthy subjects. *Manual Therapy*, **2012**, 17, 531-7		35
402	Independent component analysis of high-density electromyography in muscle force estimation. *IEEE Transactions on Biomedical Engineering*, **2007**, 54, 751-4	5	35
401	Do extreme values of daily-life gait characteristics provide more information about fall risk than median values?. *JMIR Research Protocols*, **2015**, 4, e4	2	35
400	Can Exercise Positively Influence the Intervertebral Disc?. *Sports Medicine*, **2016**, 46, 473-85	10.6	34
399	Analysis of Motor Control in Patients With Low Back Pain: A Key to Personalized Care?. *Journal of Orthopaedic and Sports Physical Therapy*, **2019**, 49, 380-388	4.2	34
398	Learning to balance on one leg: motor strategy and sensory weighting. *Journal of Neurophysiology*, **2015**, 114, 2967-82	3.2	34
397	Sensitivity of local dynamic stability of over-ground walking to balance impairment due to galvanic vestibular stimulation. *Annals of Biomedical Engineering*, **2011**, 39, 1563-9	4.7	34
396	Effect of job rotation on work demands, workload, and recovery of refuse truck drivers and collectors. *Human Factors*, **2004**, 46, 437-48	3.8	34
395	Flow-related mechanics of the intervertebral disc: the validity of an in vitro model. *Spine*, **2005**, 30, E534-9	3.3	34
394	Toward ambulatory balance assessment: estimating variability and stability from short bouts of gait. *Gait and Posture*, **2014**, 39, 695-9	2.6	33
393	Bottom-up estimation of joint moments during manual lifting using orientation sensors instead of position sensors. *Journal of Biomechanics*, **2010**, 43, 1432-6	2.9	33
392	Trunk muscle activation and associated lumbar spine joint shear forces under different levels of external forward force applied to the trunk. *Journal of Electromyography and Kinesiology*, **2007**, 17, 14-24	2.5	33
391	Orientation of tendons in vivo with active and passive knee muscles. *Journal of Biomechanics*, **2005**, 38, 1780-8	2.9	33
390	Controlling the Ground Reaction Force During Lifting. *Journal of Motor Behavior*, **1995**, 27, 225-234	1.4	33
389	Predicting falls among patients with multiple sclerosis: Comparison of patient-reported outcomes and performance-based measures of lower extremity functions. *Multiple Sclerosis and Related Disorders*, **2017**, 17, 69-74	4	32

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