

# Steven A Lavender

## List of Publications by Year in descending order

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107  
papers

3,260  
citations

172207

29  
h-index

155451

55  
g-index

107  
all docs

107  
docs citations

107  
times ranked

1840  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Role of Dynamic Three-Dimensional Trunk Motion in Occupationally-Related Low Back Disorders. <i>Spine</i> , 1993, 18, 617-628.	1.0	681
2	Biomechanical risk factors for occupationally related low back disorders. <i>Ergonomics</i> , 1995, 38, 377-410.	1.1	519
3	The Effects of Preview and Task Symmetry on Trunk Muscle Response to Sudden Loading. <i>Human Factors</i> , 1989, 31, 101-115.	2.1	88
4	The effects of initial lifting height, load magnitude, and lifting speed on the peak dynamic L5/S1 moments. <i>International Journal of Industrial Ergonomics</i> , 2003, 31, 51-59.	1.5	81
5	Biomechanical analyses of paramedics simulating frequently performed strenuous work tasks. <i>Applied Ergonomics</i> , 2000, 31, 167-177.	1.7	80
6	Musculoskeletal Discomfort, Physical Demand, and Caregiving Activities in Informal Caregivers. <i>Journal of Applied Gerontology</i> , 2015, 34, 734-760.	1.0	76
7	Evaluation of muscle force prediction models of the lumbar trunk using surface electromyography. <i>Journal of Orthopaedic Research</i> , 1994, 12, 689-698.	1.2	71
8	Quantitative Dynamic Measures of Physical Exposure Predict Low Back Functional Impairment. <i>Spine</i> , 2010, 35, 914-923.	1.0	68
9	Effects of Fear of Movement on Spine Velocity and Acceleration After Recovery From Low Back Pain. <i>Spine</i> , 2008, 33, 564-570.	1.0	64
10	Postural analysis of paramedics simulating frequently performed strenuous work tasks. <i>Applied Ergonomics</i> , 2000, 31, 45-57.	1.7	55
11	Coactivation of the Trunk Muscles during Asymmetric Loading of the Torso. <i>Human Factors</i> , 1992, 34, 239-247.	2.1	51
12	Trunk kinematics and trunk muscle activity during a rapidly applied load. <i>Journal of Electromyography and Kinesiology</i> , 1998, 8, 215-225.	0.7	51
13	Comparison of Five Methods Used To Determine Low Back Disorder Risk in a Manufacturing Environment. <i>Spine</i> , 1999, 24, 1441.	1.0	42
14	Can a New Behaviorally Oriented Training Process to Improve Lifting Technique Prevent Occupationally Related Back Injuries Due to Lifting?. <i>Spine</i> , 2007, 32, 487-494.	1.0	42
15	Designing ergonomic interventions for EMS workersâ€™ part II: Lateral transfers. <i>Applied Ergonomics</i> , 2007, 38, 227-236.	1.7	42
16	Variance in the Measurement of Sagittal Lumbar Spine Range of Motion Among Examiners, Subjects, and Instruments. <i>Spine</i> , 1995, 20, 1489-1492.	1.0	40
17	Factors affecting recovery from work-related, low back disorders in autoworkers11No commercial party having a direct financial interest in the results of the research supporting this article has or will confer a benefit upon the author(s) or upon any organization with which the author(s) is/are associated. <i>Archives of Physical Medicine and Rehabilitation</i> . 2004. 85. 1362-1364.	0.5	39
18	Are Back Supports Plus Education More Effective Than Education Alone in Promoting Recovery From Low Back Pain?. <i>Spine</i> , 2007, 32, 2050-2057.	1.0	38

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19	Designing ergonomic interventions for EMS workers, Part I: Transporting patients down the stairs. <i>Applied Ergonomics</i> , 2007, 38, 71-81.	1.7	38
20	Quantitative biomechanical workplace exposure measures: Distribution centers. <i>Journal of Electromyography and Kinesiology</i> , 2010, 20, 813-822.	0.7	38
21	Developing Physical Exposure-Based Back Injury Risk Models Applicable to Manual Handling Jobs in Distribution Centers. <i>Journal of Occupational and Environmental Hygiene</i> , 2012, 9, 450-459.	0.4	38
22	Biomechanical aspects of work-related musculoskeletal disorders. <i>Theoretical Issues in Ergonomics Science</i> , 2001, 2, 153-217.	1.0	37
23	Effects of a Lifting Belt on Spine Moments and Muscle Recruitments After Unexpected Sudden Loading. <i>Spine</i> , 2000, 25, 1569-1578.	1.0	36
24	Risk Factors for Recurrent Episodes of Work-Related Low Back Disorders in an Industrial Population. <i>Spine</i> , 2006, 31, 789-798.	1.0	34
25	Designing ergonomic interventions for EMS workers: Concept generation of patient-handling devices. <i>Applied Ergonomics</i> , 2008, 39, 792-802.	1.7	34
26	Association Between Recovery Outcomes for Work-Related Low Back Disorders and Personal, Family, and Work Factors. <i>Spine</i> , 2000, 25, 1259-1265.	1.0	33
27	Instrumentation for measuring dynamic spinal load moment exposures in the workplace. <i>Journal of Electromyography and Kinesiology</i> , 2010, 20, 1-9.	0.7	33
28	Ergonomic and safety risk factors in home health care: Exploration and assessment of alternative interventions. <i>Work</i> , 2012, 42, 341-353.	0.6	32
29	Designing ergonomic interventions for emergency medical services workersâ€™ part III: Bed to stairchair transfers. <i>Applied Ergonomics</i> , 2007, 38, 581-589.	1.7	31
30	Hospital Patient Room Design. <i>Herd</i> , 2015, 8, 98-114.	0.9	30
31	Evaluating the physical demands on firefighters using hand-carried stair descent devices to evacuate mobility-limited occupants from high-rise buildings. <i>Applied Ergonomics</i> , 2014, 45, 389-397.	1.7	28
32	Effect of Lifting Belts, Foot Movement, and Lift Asymmetry on Trunk Motions. <i>Human Factors</i> , 1995, 37, 844-853.	2.1	27
33	Towards development of a nonhuman primate model of carpal tunnel syndrome: Performance of a voluntary, repetitive pinching task induces median mononeuropathy in <i>Macaca fascicularis</i> . <i>Journal of Orthopaedic Research</i> , 2007, 25, 713-724.	1.2	27
34	Does the asymmetry multiplier in the 1991 NIOSH lifting equation adequately control the biomechanical loading of the spine?. <i>Ergonomics</i> , 2009, 52, 71-79.	1.1	27
35	Collaborating with cardiac sonographers to develop work-related musculoskeletal disorder interventions. <i>Ergonomics</i> , 2016, 59, 1193-1204.	1.1	27
36	Trunk Muscle Use during Pulling Tasks: Effects of a Lifting Belt and Footing Conditions. <i>Human Factors</i> , 1998, 40, 159-172.	2.1	26

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37	The effects of a temporal warning signal on the biomechanical preparations for sudden loading. <i>Journal of Electromyography and Kinesiology</i> , 1995, 5, 45-56.	0.7	25
38	Cumulative Spine Loading and Clinically Meaningful Declines in Low-Back Function. <i>Human Factors</i> , 2014, 56, 29-43.	2.1	24
39	Trunk muscle activation and cocontraction while resisting applied moments in a twisted posture. <i>Ergonomics</i> , 1993, 36, 1145-1157.	1.1	23
40	Meeting Patient Expectations During Hospitalization: A Grounded Theoretical Analysis of Patient-Centered Room Elements. <i>Herd</i> , 2017, 10, 95-110.	0.9	23
41	Baggage handling in an airplane cargo hold: An ergonomic intervention study. <i>International Journal of Industrial Ergonomics</i> , 2006, 36, 301-312.	1.5	21
42	Spinal loading during manual materials handling in a kneeling posture. <i>Journal of Electromyography and Kinesiology</i> , 2007, 17, 25-34.	0.7	21
43	Physiological and biomechanical responses to a prolonged repetitive asymmetric lifting activity. <i>Ergonomics</i> , 2014, 57, 575-588.	1.1	21
44	Biomechanical evaluation of the Eco-Pick lift assist: A device designed to facilitate product selection tasks in distribution centers. <i>Applied Ergonomics</i> , 2013, 44, 230-236.	1.7	19
45	Effect of Lifting Belts on Trunk Muscle Activation during a Suddenly Applied Load. <i>Human Factors</i> , 1999, 41, 670-676.	2.1	18
46	The Effects of Lateral Trunk Bending on Muscle Recruitments When Resisting Nonsagittally Symmetric Bending Moments. <i>Spine</i> , 1995, 20, 184-189.	1.0	17
47	Spine loading during the application and removal of lifting slings: the effects of patient weight, bed height and work method. <i>Ergonomics</i> , 2017, 60, 636-648.	1.1	17
48	Developing Evidence-Based Design Guidelines for Medical/Surgical Hospital Patient Rooms That Meet the Needs of Staff, Patients, and Visitors. <i>Herd</i> , 2020, 13, 145-178.	0.9	17
49	Participation in Occupational Health Longitudinal Studies: Predictors of Missed Visits and Dropouts. <i>Annals of Epidemiology</i> , 2007, 17, 9-18.	0.9	15
50	Identification of factors that affect the adoption of an ergonomic intervention among Emergency Medical Service workers. <i>Ergonomics</i> , 2012, 55, 1362-1372.	1.1	15
51	Evaluating the physical demands when using sled-type stair descent devices to evacuate mobility-limited occupants from high-rise buildings. <i>Applied Ergonomics</i> , 2015, 50, 87-97.	1.7	15
52	Evaluating the physical demands on firefighters using track-type stair descent devices to evacuate mobility-limited occupants from high-rise buildings. <i>Applied Ergonomics</i> , 2015, 46, 96-106.	1.7	15
53	Initiating an Ergonomic Analysis. <i>AAOHN Journal</i> , 2000, 48, 423-429.	0.5	14
54	Low-back disorder risk in automotive parts distribution. <i>International Journal of Industrial Ergonomics</i> , 2006, 36, 755-760.	1.5	13

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55	Preference of lid design characteristics by older adults with limited hand function. <i>Journal of Hand Therapy</i> , 2013, 26, 261-271.	0.7	13
56	A biomechanical evaluation of potential ergonomic solutions for use by firefighter and EMS providers when lifting heavy patients in their homes. <i>Applied Ergonomics</i> , 2020, 82, 102910.	1.7	13
57	The use of turnover rate as a passive surveillance indicator for potential low back disorders. <i>Ergonomics</i> , 1994, 37, 971-978.	1.1	12
58	A biomechanical and subjective comparison of two powered ambulance cots. <i>Ergonomics</i> , 2015, 58, 1885-1896.	1.1	11
59	A framework for studying risk factors for lower extremity musculoskeletal discomfort in nurses. <i>Ergonomics</i> , 2020, 63, 1535-1550.	1.1	9
60	Determining what should be taught during lift-training instruction. <i>Physiotherapy Theory and Practice</i> , 2002, 18, 175-191.	0.6	8
61	Collaborating With Sonographers and Vascular Technologists to Develop Ergonomics Interventions to Address Work-Related Musculoskeletal Disorders. <i>Journal of Diagnostic Medical Sonography</i> , 2019, 35, 23-37.	0.1	8
62	Managing the Rhythmic Complexity of Hitting a Golf Ball. <i>Journal of Motor Behavior</i> , 2009, 41, 469-477.	0.5	7
63	Empowering Elderly Women with Osteoarthritis Through Handsâ€™On Exploration of Adaptive Equipment Concepts. <i>Occupational Therapy International</i> , 2013, 20, 163-172.	0.3	7
64	The effects of transfer distance on spine kinematics when placing boxes at different heights. <i>Applied Ergonomics</i> , 2014, 45, 936-942.	1.7	7
65	Effects of Task Precision Demands on Behavioral and Physiological Changes During a Repetitive Asymmetric Lifting Activity. <i>Human Factors</i> , 2015, 57, 435-446.	2.1	7
66	Risks of hand tool injury in U.S. underground mining from 1978 through 1983 part I: coal mining. <i>Journal of Safety Research</i> , 1988, 19, 71-85.	1.7	6
67	A biomechanical and subjective assessment and comparison of three ambulance cot design configurations. <i>Ergonomics</i> , 2012, 55, 1350-1361.	1.1	6
68	A structural equation modelling approach to predicting adoption of a patient-handling intervention developed for EMS providers. <i>Ergonomics</i> , 2013, 56, 1698-1707.	1.1	6
69	Are Workers Who Leave a Job Exposed to Similar Physical Demands as Workers Who Develop Clinically Meaningful Declines in Low-Back Function?. <i>Human Factors</i> , 2014, 56, 58-72.	2.1	6
70	Risks of hand tool injury in U.S. underground mining from 1978 through 1983 part II: Metal-nonmetal mining. <i>Journal of Safety Research</i> , 1988, 19, 115-124.	1.7	5
71	Lifting belts: a psychophysical analysis. <i>Ergonomics</i> , 1995, 38, 1723-1727.	1.1	5
72	Evaluation of jar lid design characteristics by older women with hand use limitations. <i>Applied Ergonomics</i> , 2016, 52, 177-184.	1.7	5

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73	A Grounded Theoretical Analysis of Room Elements Desired by Family Members and Visitors of Hospitalized Patients: Implications for Medical/Surgical Hospital Patient Room Design. <i>Herd</i> , 2019, 12, 124-144.	0.9	5
74	Evaluating Home Healthcare Workers' Safety Hazard Detection Ability Using Virtual Simulation. <i>Home Healthcare Now</i> , 2019, 37, 265-272.	0.1	5
75	Collaborating with radiographers to address their work-related musculoskeletal discomfort. <i>Applied Ergonomics</i> , 2020, 85, 103069.	1.7	5
76	An investigation of an ergonomics intervention to affect neck biomechanics and pain associated with smartphone use. <i>Work</i> , 2021, 69, 127-139.	0.6	5
77	Trunk Muscle Loading in Non-Sagittally Symmetric Postures as a Result of Sudden Unexpected Loading Conditions. <i>Proceedings of the Human Factors Society Annual Meeting</i> , 1988, 32, 665-669.	0.1	4
78	Measuring pad-pad pinch strength in a non-human primate: <i>Macaca fascicularis</i> . <i>Journal of Electromyography and Kinesiology</i> , 2007, 17, 725-730.	0.7	4
79	Developing Ergonomic Interventions to Reduce Musculoskeletal Disorders in Grocery Distribution Centers. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2010, 54, 1229-1233.	0.2	4
80	Effects of Transfer Distance on Spine Kinematics for De-palletizing Tasks. <i>Journal of Occupational and Environmental Hygiene</i> , 2014, 11, 1-8.	0.4	4
81	Collaborating with mammographers to address their work-related musculoskeletal discomfort. <i>Ergonomics</i> , 2016, 59, 1307-1317.	1.1	4
82	Parallel streams versus integrated timing in multilimb pattern generation: A test of Korte's Third Law. <i>Journal of Experimental Psychology: Human Perception and Performance</i> , 2016, 42, 1703-1715.	0.7	4
83	Musculoskeletal discomfort in veterinary healthcare professions. <i>Work</i> , 2022, 71, 1007-1027.	0.6	4
84	Comparisons of tibial accelerations when walking on a wood composite vs. a concrete mezzanine surface. <i>Applied Ergonomics</i> , 2013, 44, 824-827.	1.7	3
85	Architects' and interior designers' perspectives on hospital patient rooms designed by the people who work in these rooms. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2016, 60, 588-592.	0.2	3
86	An electromyographic and kinematic comparison between an extendable conveyor system and an articulating belt conveyor used for truck loading and unloading tasks. <i>Applied Ergonomics</i> , 2017, 58, 398-404.	1.7	3
87	Quantifying the effectiveness of static and dynamic insoles in reducing the tibial shock experienced during walking. <i>Applied Ergonomics</i> , 2019, 74, 118-123.	1.7	3
88	The Effects of Load Stability and Visual Access During Asymmetric Lifting Tasks on Back and Upper Extremity Biomechanical Responses. <i>Human Factors</i> , 2019, 61, 712-721.	2.1	3
89	Assessment of alternative methods for informal caregivers to perform patient repositioning tasks. <i>Applied Ergonomics</i> , 2021, 93, 103360.	1.7	3
90	Ergonomic considerations when slotting piece-pick operations in distribution centers. <i>Applied Ergonomics</i> , 2021, 97, 103554.	1.7	3

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91	The effects of using a footrest during computer tasks varying in complexity and temporal demands: A postural and electromyographic analysis. <i>Applied Ergonomics</i> , 2022, 98, 103550.	1.7	3
92	Industrial Quantification of Occupationally-Related Low Back Disorder Risk Factors. <i>Proceedings of the Human Factors Society Annual Meeting</i> , 1992, 36, 757-760.	0.1	2
93	Age-Related Differences in the Rhythmic Structure of the Golf Swing. <i>Journal of Motor Behavior</i> , 2011, 43, 433-444.	0.5	2
94	The Development of Preparatory Response Strategies in Anticipation of Sudden Loading of the Torso. <i>Proceedings of the Human Factors Society Annual Meeting</i> , 1990, 34, 757-761.	0.1	1
95	An Ergonomic Evaluation of Hand-Carried, Track-Type, and Sled-Type Stair Descent Devices Used for High Rise Building Evacuation. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2013, 57, 976-980.	0.2	1
96	Exploring the Effects of Seated Whole Body Vibration Exposure on Repetitive Asymmetric Lifting Tasks. <i>Journal of Occupational and Environmental Hygiene</i> , 2015, 12, 172-181.	0.4	1
97	The Environmental Services Perspective on Hospital Room Design: A Mixed-Methods Approach. <i>Proceedings of the International Symposium of Human Factors and Ergonomics in Healthcare</i> , 2017, 6, 104-108.	0.2	1
98	Preventing Firefighter Injuries When Handling Obese Patients: Understanding the Patient Handling Scenarios. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2017, 61, 1015-1016.	0.2	1
99	Evaluating the Efficacy of a New Alternating Pressure Air Mattress Aimed at Reducing Pressure Injuries During the Transport of Combat Casualties. <i>Military Medicine</i> , 2023, 188, 3026-3033.	0.4	1
100	The Effects of Seam Height, Scaling Method, and Bar Weight Distribution on Scaling Effectiveness and Electromyographic Activity. <i>Proceedings of the Human Factors Society Annual Meeting</i> , 1987, 31, 471-475.	0.1	0
101	Trunk Muscle Activation While Resisting Asymmetrically Applied Loads in an Axially Rotated Posture. <i>Proceedings of the Human Factors Society Annual Meeting</i> , 1992, 36, 752-756.	0.1	0
102	Developing a Non-Human Primate Experimental Model for Studying Carpal Tunnel Syndrome. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2006, 50, 1318-1322.	0.2	0
103	Understanding Factors that Affect the Adoption of Ergonomic Interventions among Ems Workers. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2010, 54, 1234-1238.	0.2	0
104	Identifying Unmet Patient Expectations via Critical Review of Five Simulated Hospital Rooms. <i>Proceedings of the International Symposium of Human Factors and Ergonomics in Healthcare</i> , 2017, 6, 116-117.	0.2	0
105	Re-thinking floor mat design from an ergonomics perspective: Can a two-part mat system reduce biomechanical loads during normal mat handling tasks?. <i>Applied Ergonomics</i> , 2018, 72, 17-24.	1.7	0
106	The efficacy of a lifting strap as an ergonomic intervention for EMS providers: Does it make it easier to raise a supine patient to an upright sitting posture?. <i>Applied Ergonomics</i> , 2021, 94, 103416.	1.7	0
107	Muscle Recruitment during Simulated Piece Picking Tasks Commonly Performed in Distribution Centers. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2020, 64, 964-964.	0.2	0