

The Biomechanical Differences Between Barefoot and Shoes: A Systematic Review and Preliminary Meta-Analysis

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Citation Report

#	ARTICLE	IF	CITATIONS
1	The Risks and Benefits of Running Barefoot or in Minimalist Shoes. Sports Health, 2014, 6, 475-480.	1.3	54
2	A Biomechanical Analysis of Barefoot versus Shod Distance Running. International Journal of Athletic Therapy and Training, 2014, 19, 34-36.	0.1	0
3	Biomechanical Factors Influencing the Performance of Elite Alpine Ski Racers. Sports Medicine, 2014, 44, 519-533.	3.1	83
4	Reduction in ground reaction force variables with instructed barefoot running. Journal of Sport and Health Science, 2014, 3, 143-151.	3.3	56
6	A consensus definition and rating scale for minimalist shoes. Journal of Foot and Ankle Research, 2015, 8, 42.	0.7	137
7	Foot Morphological Difference between Habitually Shod and Unshod Runners. PLoS ONE, 2015, 10, e0131385.	1.1	36
8	Effect of Minimalist Footwear on Running Efficiency. Sports Health, 2015, 7, 256-260.	1.3	11
9	A comparative biomechanical analysis of habitually unshod and shod runners based on a foot morphological difference. Human Movement Science, 2015, 42, 38-53.	0.6	39
10	Plantar loading and foot-strike pattern changes with speed during barefoot running in those with a natural rearfoot strike pattern while shod. Foot, 2015, 25, 89-96.	0.4	7
11	Dynamic navicular motion measured using a stretch sensor is different between walking and running, and between overground and treadmill conditions. Journal of Foot and Ankle Research, 2015, 8, 5.	0.7	13
12	Biomechanical Differences of Foot-Strike Patterns During Running: A Systematic Review With Meta-analysis. Journal of Orthopaedic and Sports Physical Therapy, 2015, 45, 738-755.	1.7	158
13	Comparative Analysis of User Perception and Step Length Using Toe Separating, Contoured Sandals versus Thong Style Flip-Flops. Clinical Research on Foot & Ankle, 2016, 04, .	0.1	0
14	Orthopaedic Perspective on Barefoot and Minimalist Running. Journal of the American Academy of Orthopaedic Surgeons, The, 2016, 24, 180-187.	1.1	9
15	The Effect of Backpack Carriage on the Biomechanics of Walking: A Systematic Review and Preliminary Meta-Analysis. Journal of Applied Biomechanics, 2016, 32, 614-629.	0.3	49
16	The effects of being habitually barefoot on foot mechanics and motor performance in children and adolescents aged 6-18 years: study protocol for a multicenter cross-sectional study (Barefoot LIFE) Tj ETQq0 007gBT /Overlock 10		
18	Return to Sport Decision-Making for Endurance Athletes. , 2016, , 317-329.		0
19	Biomechanical Changes During a 50-minute Run in Different Footwear and on Various Slopes. Journal of Applied Biomechanics, 2016, 32, 40-49.	0.3	18
20	Shoes alter the spring-like function of the human foot during running. Journal of the Royal Society Interface, 2016, 13, 20160174.	1.5	55

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21	Running retraining to treat lower limb injuries: a mixed-methods study of current evidence synthesised with expert opinion. <i>British Journal of Sports Medicine</i> , 2016, 50, 513-526.	3.1	127
22	Minimalist Running Shoes and Injury Risk Among United States Army Soldiers. <i>American Journal of Sports Medicine</i> , 2016, 44, 1439-1446.	1.9	20
23	Individual Responses to a Barefoot Running Program. <i>American Journal of Sports Medicine</i> , 2016, 44, 777-784.	1.9	29
24	Neuro-mechanical adjustments to shod versus barefoot treadmill runs in the acute and delayed stretch-shortening cycle recovery phases. <i>Journal of Sports Sciences</i> , 2016, 34, 738-745.	1.0	6
26	Confidence crisis of results in biomechanics research. <i>Sports Biomechanics</i> , 2017, 16, 425-433.	0.8	44
27	Long-Term Effects of Habitual Barefoot Running and Walking. <i>Medicine and Science in Sports and Exercise</i> , 2017, 49, 752-762.	0.2	58
28	Medial shoe-ground pressure and specific running injuries: A 1-year prospective cohort study. <i>Journal of Science and Medicine in Sport</i> , 2017, 20, 830-834.	0.6	27
29	The association between hip dysfunction and lower quarter injuries in long distance runners: a systematic review protocol. <i>JBI Database of Systematic Reviews and Implementation Reports</i> , 2017, 15, 2433-2436.	1.7	1
30	Shoe drop reduction influences the lower limb biomechanics of children tennis players during an open stance forehand: A longitudinal study. <i>European Journal of Sport Science</i> , 2017, 17, 1261-1269.	1.4	4
31	Transitioning to Minimal Footwear: a Systematic Review of Methods and Future Clinical Recommendations. <i>Sports Medicine - Open</i> , 2017, 3, 33.	1.3	36
32	Relationship between foot strike pattern, running speed, and footwear condition in recreational distance runners. <i>Sports Biomechanics</i> , 2017, 16, 238-247.	0.8	24
33	Acute effects of barefoot running and running requirement on lower-limb kinematics in habitually shod endurance runners. <i>Apunts Medicine De L'Esport</i> , 2017, 52, 85-91.	0.5	3
34	Effects of fatigue on kinematics and kinetics during overground running: a systematic review. <i>Journal of Sports Medicine and Physical Fitness</i> , 2017, 57, 887-899.	0.4	38
35	Maximalist vs. minimalist shoes: dose-effect response of elastic compression on muscular oscillations. <i>Journal of Sports Medicine and Physical Fitness</i> , 2017, 57, 1290-1298.	0.4	4
36	A public dataset of running biomechanics and the effects of running speed on lower extremity kinematics and kinetics. <i>PeerJ</i> , 2017, 5, e3298.	0.9	88
37	Differences in Pes Planus and Pes Cavus subtalar eversion/inversion before and after prolonged running, using a two-dimensional digital analysis. <i>Journal of Exercise Rehabilitation</i> , 2017, 13, 232-239.	0.4	5
38	Relationships between Habitual Cadence, Footstrike, and Vertical Load Rates in Runners. <i>Medicine and Science in Sports and Exercise</i> , 2018, 50, 1837-1841.	0.2	57
39	Immediate and short-term adaptations to maximalist and minimalist running shoes. <i>Footwear Science</i> , 2018, 10, 95-107.	0.8	15

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40	Sex-Specific Relationships Between Hip Strength and Hip, Pelvis, and Trunk Kinematics in Healthy Runners. <i>Journal of Applied Biomechanics</i> , 2018, 34, 76-81.	0.3	19
41	Foot Strike Patterns Differ Between Children and Adolescents Growing up Barefoot vs. Shod. <i>International Journal of Sports Medicine</i> , 2018, 39, 97-103.	0.8	33
42	8-week training in partial minimalist shoe reduces impact force during running. <i>Human Movement</i> , 2018, 19, 20-28.	0.5	0
43	Effects of barefoot and footwear conditions on learning of a dynamic balance task: a randomized controlled study. <i>European Journal of Applied Physiology</i> , 2018, 118, 2699-2706.	1.2	22
44	Estimation of vertical ground reaction force during running using neural network model and uniaxial accelerometer. <i>Journal of Biomechanics</i> , 2018, 76, 269-273.	0.9	69
45	Being barefoot. Prevalence at home, in school and during sport: a cross-sectional survey of 714 New Zealand secondary school boys. <i>Journal of Foot and Ankle Research</i> , 2018, 11, 42.	0.7	4
46	Motor Skills of Children and Adolescents Are Influenced by Growing up Barefoot or Shod. <i>Frontiers in Pediatrics</i> , 2018, 6, 115.	0.9	20
47	The Effect of a Curved Non-Motorized Treadmill on Running Gait Length, Imbalance and Stride Angle. <i>Sports</i> , 2018, 6, 58.	0.7	10
48	Morphology-Related Foot Function Analysis: Implications for Jumping and Running. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 3236.	1.3	3
49	The effect of running on foot muscles and bones: A systematic review. <i>Human Movement Science</i> , 2019, 64, 75-88.	0.6	16
50	Adaptation of Running Biomechanics to Repeated Barefoot Running: A Randomized Controlled Study. <i>American Journal of Sports Medicine</i> , 2019, 47, 1975-1983.	1.9	33
51	Validity and Reliability of 2-Dimensional Video-Based Assessment to Analyze Foot Strike Pattern and Step Rate During Running: A Systematic Review. <i>Sports Health</i> , 2019, 11, 409-415.	1.3	15
52	The relationship between static and dynamic foot posture and running biomechanics: A systematic review and meta-analysis. <i>Gait and Posture</i> , 2019, 72, 109-122.	0.6	34
53	How are running shoes assessed? A systematic review of characteristics and measurement tools used to describe running footwear. <i>Journal of Sports Sciences</i> , 2019, 37, 1617-1629.	1.0	18
54	The influence of high-intensity interval training on anthropometric variables of adults with overweight or obesity: a systematic review and network meta-analysis. <i>Obesity Reviews</i> , 2019, 20, 142-155.	3.1	72
55	Effect of habitual foot-strike pattern on the gastrocnemius medialis muscle-tendon interaction and muscle force production during running. <i>Journal of Applied Physiology</i> , 2019, 126, 708-716.	1.2	24
56	Running-related muscle activation patterns and tibial acceleration across puberty. <i>Journal of Electromyography and Kinesiology</i> , 2020, 50, 102381.	0.7	3
57	The influence of footwear on walking biomechanics in individuals with chronic ankle instability. <i>PLoS ONE</i> , 2020, 15, e0239621.	1.1	3

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58	Influence of running shoes on muscle activity. PLoS ONE, 2020, 15, e0239852.	1.1	9
59	Most Military Runners Report Recent Changes in Running Parameters Before Lower Limb Injury Onset. Military Medicine, 2020, 186, e1140-e1148.	0.4	9
60	Is markerless, smart phone recorded two-dimensional video a clinically useful measure of relevant lower limb kinematics in runners with patellofemoral pain? A validity and reliability study. Physical Therapy in Sport, 2020, 43, 36-42.	0.8	13
61	Single-Subject Analyses Reveal Altered Performance and Muscle Activation during Vertical Jumping. Biomechanics, 2021, 1, 15-28.	0.5	4
62	Effects of Foot Strike Techniques on Running Biomechanics: A Systematic Review and Meta-analysis. Sports Health, 2021, 13, 71-77.	1.3	29
63	Running barefoot leads to lower running stability compared to shod running - results from a randomized controlled study. Scientific Reports, 2021, 11, 4376.	1.6	8
64	The effect of uneven terrain conditions during shod vs. barefoot running. Acta Gymnica, 0, 51, .	1.1	0
65	Does Site Matter? Impact of Inertial Measurement Unit Placement on the Validity and Reliability of Stride Variables During Running: A Systematic Review and Meta-analysis. Sports Medicine, 2021, 51, 1449-1489.	3.1	19
66	To study prevalence of ankle and foot complex injuries in recreational barefoot and shod marathon runners: A cross-sectional study. Global Journal of Medical and Clinical Case Reports, 2021, , 099-104.	0.0	0
67	Comparison of Minimalist Footwear Strategies for Simulating Barefoot Running: A Randomized Crossover Study. PLoS ONE, 2015, 10, e0125880.	1.1	56
68	Peak oxygen uptake in Paralympic sitting sports: A systematic literature review, meta- and pooled-data analysis. PLoS ONE, 2018, 13, e0192903.	1.1	40
69	Is There a Relationship Between Strike Pattern and Injury During Running: A Review. Physical Activity and Health, 2019, 3, 127-134.	0.6	32
70	Plantar support adaptations in healthy subjects after eight weeks of barefoot running training. PeerJ, 2020, 8, e8862.	0.9	1
71	Barefoot, Minimalist, Maximalist, and Performance. , 2017, , 181-221.		0
73	Does the use of an orthotic increase comfort, decrease injury and improve running performance?. Journal of Novel Physiotherapy and Physical Rehabilitation, 2018, 5, 023-026.	0.1	0
74	Barefoot running: Between fashion and real way to prevent joint osteo lesions?. Journal of Translational Internal Medicine, 2020, 8, 188-194.	1.0	1
75	BIOMECHANICS OF SHOD AND BAREFOOT RUNNING: A LITERATURE REVIEW. Revista Brasileira De Medicina Do Esporte, 2020, 26, 551-557.	0.1	5
76	Lower limb muscle activity during forefoot and rearfoot strike running techniques. International Journal of Sports Physical Therapy, 2014, 9, 888-97.	0.5	18

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77	Effects of wearing athletic shoes, five-toed shoes, and standing barefoot on balance performance in young adults. <i>International Journal of Sports Physical Therapy</i> , 2015, 10, 69-74.	0.5	13
78	A Comparison of Stride Length and Lower Extremity Kinematics during Barefoot and Shod Running in Well Trained Distance Runners. <i>Journal of Sports Science and Medicine</i> , 2016, 15, 417-423.	0.7	5
79	Comparison of Varying Heel to Toe Differences and Cushion to Barefoot Running in Novice Minimalist Runners. <i>International Journal of Exercise Science</i> , 2018, 11, 13-19.	0.5	4
80	Young Adults Performance of Unipedal Dynamic Balance with Various Footwear Conditions. <i>International Journal of Exercise Science</i> , 2020, 13, 206-215.	0.5	3
81	Effects of Minimalist Footwear and Foot Strike Pattern on Plantar Pressure during a Prolonged Running. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 506.	1.3	0
82	Comparative Acceptability of Weightbearing Physical Activity in Sporting Footwear Versus Barefoot in Habitually Shod Individuals. <i>Journal of the American Podiatric Medical Association</i> , 2022, 112, .	0.2	1
86	Current perception and practice of athletics coaches about the modification of footstrike pattern in endurance runners: A survey. <i>International Journal of Sports Science and Coaching</i> , 2022, 17, 1345-1353.	0.7	1
87	Influence of the Shod Condition on Running Power Output: An Analysis in Recreationally Active Endurance Runners. <i>Sensors</i> , 2022, 22, 4828.	2.1	3
88	The Effects of Minimalist Shoes on Plantar Intrinsic Foot Muscle Size and Strength: A Systematic Review. <i>International Journal of Sports Medicine</i> , 2023, 44, 320-328.	0.8	2
89	Alterations in peripheral joint muscle force control in adults with musculoskeletal disease, injury, surgery, or arthroplasty: A systematic review and meta-analysis. <i>Journal of Electromyography and Kinesiology</i> , 2022, 66, 102696.	0.7	4
90	Effects of load carriage on measures of postural sway in healthy, young adults: A systematic review and meta-analysis. <i>Applied Ergonomics</i> , 2023, 106, 103893.	1.7	5
91	A comparison of the kinematics and kinetics of barefoot and shod running in children with cerebral palsy. <i>Gait and Posture</i> , 2022, 98, 271-278.	0.6	0
92	The influence of surface and speed on biomechanical external loads obtained from wearable devices in rearfoot strike runners. <i>Sports Biomechanics</i> , 0, , 1-15.	0.8	4
93	Barefoot Running on Grass as a Potential Treatment for Plantar Fasciitis: A Prospective Case Series. <i>International Journal of Environmental Research and Public Health</i> , 2022, 19, 15466.	1.2	0
94	Effects of minimalist shoes on pelvic floor activity in nulliparous women during running at different velocities: a randomized cross-over clinical trial. <i>Scientific Reports</i> , 2022, 12, .	1.6	1
95	Minimal Shoes: Restoring Natural Running Mechanics. , 2023, , 623-634.		0
96	Heel-to-toe drop of running shoes: a systematic review of its biomechanical effects. <i>Footwear Science</i> , 2023, 15, 77-101.	0.8	2
97	Understanding human gait. , 2023, , 1-241.		0

#	ARTICLE	IF	CITATIONS
98	The foot as a functional unit of gait. , 2023, , 459-625.		0