

# Alan R. Barker

## List of Publications by Year in descending order

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Version: 2024-02-01

113  
papers

2,301  
citations

201658

27  
h-index

302107

39  
g-index

115  
all docs

115  
docs citations

115  
times ranked

2262  
citing authors

#	ARTICLE	IF	CITATIONS
1	Establishing maximal oxygen uptake in young people during a ramp cycle test to exhaustion. <i>British Journal of Sports Medicine</i> , 2011, 45, 498-503.	6.7	147
2	Oxygen Uptake Kinetics in Children and Adolescents: A Review. <i>Pediatric Exercise Science</i> , 2009, 21, 130-147.	1.0	69
3	Endurance Training and Elite Young Athletes. <i>Medicine and Sport Science</i> , 2011, 56, 59-83.	1.4	67
4	Muscle metabolism changes with age and maturation: How do they relate to youth sport performance?. <i>British Journal of Sports Medicine</i> , 2015, 49, 860-864.	6.7	66
5	Physical activity, sedentary time, TV viewing, physical fitness and cardiovascular disease risk in adolescents: The HELENA study. <i>International Journal of Cardiology</i> , 2018, 254, 303-309.	1.7	61
6	Two weeks of high-intensity interval training improves novel but not traditional cardiovascular disease risk factors in adolescents. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2015, 309, H1039-H1047.	3.2	55
7	Is cardiac autonomic function associated with cardiorespiratory fitness and physical activity in children and adolescents? A systematic review of cross-sectional studies. <i>International Journal of Cardiology</i> , 2017, 236, 113-122.	1.7	51
8	Effects of tapering on physical match activities in professional soccer players. <i>Journal of Sports Sciences</i> , 2016, 34, 2189-2194.	2.0	50
9	High intensity interval exercise is an effective alternative to moderate intensity exercise for improving glucose tolerance and insulin sensitivity in adolescent boys. <i>Journal of Science and Medicine in Sport</i> , 2015, 18, 720-724.	1.3	48
10	Perspectives on high-intensity interval exercise for health promotion in children and adolescents. <i>Open Access Journal of Sports Medicine</i> , 2017, Volume 8, 243-265.	1.3	48
11	Perceptual and Cardiorespiratory Responses to High-Intensity Interval Exercise in Adolescents: Does Work Intensity Matter?. <i>Journal of Sports Science and Medicine</i> , 2019, 18, 1-12.	1.6	47
12	A protocol to determine valid in young cystic fibrosis patients. <i>Journal of Science and Medicine in Sport</i> , 2013, 16, 539-544.	1.3	44
13	The Acute Effect of Exercise Intensity on Vascular Function in Adolescents. <i>Medicine and Science in Sports and Exercise</i> , 2015, 47, 2628-2635.	0.4	43
14	Muscle phosphocreatine and pulmonary oxygen uptake kinetics in children at the onset and offset of moderate intensity exercise. <i>European Journal of Applied Physiology</i> , 2008, 102, 727-738.	2.5	40
15	Muscle phosphocreatine kinetics in children and adults at the onset and offset of moderate-intensity exercise. <i>Journal of Applied Physiology</i> , 2008, 105, 446-456.	2.5	40
16	Acute cardiorespiratory, perceptual and enjoyment responses to high-intensity interval exercise in adolescents. <i>European Journal of Sport Science</i> , 2017, 17, 1335-1342.	2.7	40
17	Effects of Arterial Stiffness and Carotid Intima-Media Thickness Progression on the Risk of Overweight/Obesity and Elevated Blood Pressure/Hypertension: a Cross-Lagged Cohort Study. <i>Hypertension</i> , 2022, 79, 159-169.	2.7	40
18	Age- and sex-related differences in muscle phosphocreatine and oxygenation kinetics during high-intensity exercise in adolescents and adults. <i>NMR in Biomedicine</i> , 2010, 23, 569-577.	2.8	39

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19	The Impact of Sport Participation on Bone Mass and Geometry in Male Adolescents. <i>Medicine and Science in Sports and Exercise</i> , 2017, 49, 317-326.	0.4	39
20	Reproducibility of maximal cardiopulmonary exercise testing for young cystic fibrosis patients. <i>Journal of Cystic Fibrosis</i> , 2013, 12, 644-650.	0.7	37
21	Perceptual Responses to High- and Moderate-Intensity Interval Exercise in Adolescents. <i>Medicine and Science in Sports and Exercise</i> , 2018, 50, 1021-1030.	0.4	36
22	Determinants of Bone Outcomes in Adolescent Athletes at Baseline. <i>Medicine and Science in Sports and Exercise</i> , 2017, 49, 1389-1396.	0.4	35
23	Longitudinal Adaptations of Bone Mass, Geometry, and Metabolism in Adolescent Male Athletes: The PRO-BONE Study. <i>Journal of Bone and Mineral Research</i> , 2017, 32, 2269-2277.	2.8	35
24	The effect of 12-month participation in osteogenic and non-osteogenic sports on bone development in adolescent male athletes. The PRO-BONE study. <i>Journal of Science and Medicine in Sport</i> , 2018, 21, 404-409.	1.3	34
25	The effect of a high-impact jumping intervention on bone mass, bone stiffness and fitness parameters in adolescent athletes. <i>Archives of Osteoporosis</i> , 2018, 13, 128.	2.4	34
26	Effect of Arterial Stiffness and Carotid Intima-Media Thickness Progression on the Risk of Dysglycemia, Insulin Resistance, and Dyslipidemia: a Temporal Causal Longitudinal Study. <i>Hypertension</i> , 2022, 79, 667-678.	2.7	34
27	Exercise intensity and the protection from postprandial vascular dysfunction in adolescents. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2015, 308, H1443-H1450.	3.2	33
28	High-fat Overfeeding Does Not Exacerbate Rapid Changes in Forearm Glucose and Fatty Acid Balance During Immobilization. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2020, 105, 276-289.	3.6	29
29	Exercise Testing Elite Young Athletes. <i>Medicine and Sport Science</i> , 2011, 56, 106-125.	1.4	28
30	The influence of 2 weeks of low-volume high-intensity interval training on health outcomes in adolescent boys. <i>Journal of Sports Sciences</i> , 2014, 32, 757-765.	2.0	28
31	Quadriceps Muscle Energetics during Incremental Exercise in Children and Adults. <i>Medicine and Science in Sports and Exercise</i> , 2010, 42, 1303-1313.	0.4	26
32	Effect of a program of short bouts of exercise on bone health in adolescents involved in different sports: the PRO-BONE study protocol. <i>BMC Public Health</i> , 2015, 15, 361.	2.9	26
33	Beneficial effects of acute high-intensity exercise on electrophysiological indices of attention processes in young adult men. <i>Behavioural Brain Research</i> , 2019, 359, 474-484.	2.2	26
34	The influence of priming exercise on oxygen uptake, cardiac output, and muscle oxygenation kinetics during very heavy-intensity exercise in 9- to 13-yr-old boys. <i>Journal of Applied Physiology</i> , 2010, 109, 491-500.	2.5	24
35	Aerobic Function and Muscle Deoxygenation Dynamics during Ramp Exercise in Children. <i>Medicine and Science in Sports and Exercise</i> , 2015, 47, 1877-1884.	0.4	24
36	Cardiorespiratory Fitness, Fat Mass, and Cardiometabolic Health with Endothelial Function, Arterial Elasticity, and Stiffness. <i>Medicine and Science in Sports and Exercise</i> , 2022, 54, 141-152.	0.4	23

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37	Insights Into Developmental Muscle Metabolism Through the Use of <sup>31</sup> P-Magnetic Resonance Spectroscopy: A Review. <i>Pediatric Exercise Science</i> , 2010, 22, 350-368.	1.0	22
38	The influence of age and sex on cerebrovascular reactivity and ventilatory response to hypercapnia in children and adults. <i>Experimental Physiology</i> , 2020, 105, 1090-1101.	2.0	22
39	Cystic fibrosis and physiological responses to exercise. <i>Expert Review of Respiratory Medicine</i> , 2014, 8, 751-762.	2.5	21
40	Exercise intensity and postprandial health outcomes in adolescents. <i>European Journal of Applied Physiology</i> , 2015, 115, 927-936.	2.5	21
41	Agreement Between Standard Body Composition Methods to Estimate Percentage of Body Fat in Young Male Athletes. <i>Pediatric Exercise Science</i> , 2018, 30, 402-410.	1.0	21
42	Critical power in adolescents: physiological bases and assessment using all-out exercise. <i>European Journal of Applied Physiology</i> , 2012, 112, 1359-1370.	2.5	20
43	The Effect of Ivacaftor in Adolescents With Cystic Fibrosis (G551D Mutation). <i>Pediatric Physical Therapy</i> , 2014, 26, 454-461.	0.6	20
44	Impaired Aerobic Function in Patients with Cystic Fibrosis during Ramp Exercise. <i>Medicine and Science in Sports and Exercise</i> , 2014, 46, 2271-2278.	0.4	20
45	A 9-Month Jumping Intervention to Improve Bone Geometry in Adolescent Male Athletes. <i>Medicine and Science in Sports and Exercise</i> , 2018, 50, 2544-2554.	0.4	20
46	A web-based intervention to promote physical activity in adolescents and young adults with cystic fibrosis: protocol for a randomized controlled trial. <i>BMC Pulmonary Medicine</i> , 2019, 19, 253.	2.0	20
47	Peak oxygen uptake cut-points to identify children at increased cardiometabolic risk – The PANIC Study. <i>Scandinavian Journal of Medicine and Science in Sports</i> , 2019, 29, 16-24.	2.9	20
48	School-based high-intensity interval training programs in children and adolescents: A systematic review and meta-analysis. <i>PLoS ONE</i> , 2022, 17, e0266427.	2.5	20
49	The effect of baseline metabolic rate on pulmonary O <sub>2</sub> uptake kinetics during very heavy intensity exercise in boys and men. <i>Respiratory Physiology and Neurobiology</i> , 2012, 180, 223-229.	1.6	19
50	Validity of the Supramaximal Test to Verify Maximal Oxygen Uptake in Children and Adolescents. <i>Pediatric Exercise Science</i> , 2019, 31, 213-222.	1.0	19
51	Cardiorespiratory Fitness, Physical Activity, and Insulin Resistance in Children. <i>Medicine and Science in Sports and Exercise</i> , 2020, 52, 1144-1152.	0.4	19
52	Effect of maturational timing on bone health in male adolescent athletes engaged in different sports: The PRO-BONE study. <i>Journal of Science and Medicine in Sport</i> , 2019, 22, 253-258.	1.3	18
53	Longitudinal Changes in the Oxygen Uptake Kinetic Response to Heavy-Intensity Exercise in 14- to 16-Year-Old Boys. <i>Pediatric Exercise Science</i> , 2010, 22, 69-80.	1.0	16
54	The effect of pedal rate on pulmonary O <sub>2</sub> uptake kinetics during very heavy intensity exercise in trained and untrained teenage boys. <i>Respiratory Physiology and Neurobiology</i> , 2011, 177, 149-154.	1.6	16

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55	The effect of priming exercise on $\dot{V}O_{2\max}$ uptake kinetics, muscle $\dot{V}O_{2\max}$ delivery and utilization, muscle activity, and exercise tolerance in boys. <i>Applied Physiology, Nutrition and Metabolism</i> , 2014, 39, 308-317.	1.9	16
56	Impaired Pulmonary $\dot{V}E\dot{V}O_2$ Kinetics in Cystic Fibrosis Depend on Exercise Intensity. <i>Medicine and Science in Sports and Exercise</i> , 2016, 48, 2090-2099.	0.4	16
57	Acute Exercise and Insulin Sensitivity in Boys: A Time-Course Study. <i>International Journal of Sports Medicine</i> , 2017, 38, 967-974.	1.7	16
58	Accumulating exercise and postprandial health in adolescents. <i>Metabolism: Clinical and Experimental</i> , 2015, 64, 1068-1076.	3.4	15
59	A single bout of high-intensity interval exercise and work-matched moderate-intensity exercise has minimal effect on glucose tolerance and insulin sensitivity in 7- to 10-year-old boys. <i>Journal of Sports Sciences</i> , 2018, 36, 149-155.	2.0	15
60	Mechanisms of blood pressure control following acute exercise in adolescents: Effects of exercise intensity on haemodynamics and baroreflex sensitivity. <i>Experimental Physiology</i> , 2018, 103, 1056-1066.	2.0	15
61	The role of cardiopulmonary exercise testing in predicting mortality and morbidity in people with congenital heart disease: a systematic review and meta-analysis. <i>European Journal of Preventive Cardiology</i> , 2022, 29, 513-533.	1.8	14
62	Prevalence and burden of health problems in competitive adolescent distance runners: A 6-month prospective cohort study. <i>Journal of Sports Sciences</i> , 2021, 39, 1366-1375.	2.0	14
63	Perceptual and prefrontal cortex haemodynamic responses to high-intensity interval exercise with decreasing and increasing work-intensity in adolescents. <i>International Journal of Psychophysiology</i> , 2018, 133, 140-148.	1.0	13
64	Assessment of Physical Activity by Accelerometer and IPAQ-Short Version in Patients with Chronic Kidney Disease Undergoing Hemodialysis. <i>Blood Purification</i> , 2015, 40, 250-255.	1.8	12
65	Longitudinal Changes in the Oxygen Uptake Kinetic Response to Heavy-Intensity Exercise in 14- to 16-Year-Old Boys. <i>Pediatric Exercise Science</i> , 2010, 22, 314-325.	1.0	11
66	New insights in paediatric exercise metabolism. <i>Journal of Sport and Health Science</i> , 2012, 1, 18-26.	6.5	11
67	Soft tissues, areal bone mineral density and hip geometry estimates in active young boys: the PRO-BONE study. <i>European Journal of Applied Physiology</i> , 2017, 117, 833-842.	2.5	11
68	High-intensity interval exercise and glycemic control in adolescents with type one diabetes mellitus: a case study. <i>Physiological Reports</i> , 2017, 5, e13339.	1.7	11
69	Exercise intolerance in cystic fibrosis-the role of CFTR modulator therapies. <i>Journal of Cystic Fibrosis</i> , 2022, 21, 282-292.	0.7	10
70	Effects of negative air ions on oxygen uptake kinetics, recovery and performance in exercise: a randomized, double-blinded study. <i>International Journal of Biometeorology</i> , 2014, 58, 1503-1512.	3.0	9
71	Muscle metabolism during fatiguing isometric quadriceps exercise in adolescents and adults. <i>Applied Physiology, Nutrition and Metabolism</i> , 2014, 39, 439-445.	1.9	9
72	Cardiac Autonomic Function, Cardiovascular Risk and Physical Activity in Adolescents. <i>International Journal of Sports Medicine</i> , 2018, 39, 89-96.	1.7	9

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73	The reliability of a breathhold protocol to determine cerebrovascular reactivity in adolescents. <i>Journal of Clinical Ultrasound</i> , 2020, 48, 544-552.	0.8	9
74	The within- and between-day reliability of cerebrovascular reactivity using traditional and novel analytical approaches. <i>Experimental Physiology</i> , 2022, 107, 29-41.	2.0	9
75	Agreement and Reliability of Fasted and Oral Glucose Tolerance Test-Derived Indices of Insulin Sensitivity and Beta Cell Function in Boys. <i>International Journal of Sports Medicine</i> , 2017, 38, 411-417.	1.7	8
76	The reliability of a single protocol to determine endothelial, microvascular and autonomic functions in adolescents. <i>Clinical Physiology and Functional Imaging</i> , 2017, 37, 703-709.	1.2	7
77	Scaling the Oxygen Uptake Efficiency Slope for Body Size in Cystic Fibrosis. <i>Medicine and Science in Sports and Exercise</i> , 2017, 49, 1980-1986.	0.4	7
78	The oxygen uptake efficiency slope is not a valid surrogate of aerobic fitness in cystic fibrosis. <i>Pediatric Pulmonology</i> , 2018, 53, 36-42.	2.0	7
79	The effects of two weeks high-intensity interval training on fasting glucose, glucose tolerance and insulin resistance in adolescent boys: a pilot study. <i>BMC Sports Science, Medicine and Rehabilitation</i> , 2019, 11, 29.	1.7	7
80	Calibration and validation of accelerometry using cut-points to assess physical activity in paediatric clinical groups: A systematic review. <i>Preventive Medicine Reports</i> , 2020, 19, 101142.	1.8	7
81	Differences in cerebrovascular regulation and ventilatory responses during ramp incremental cycling in children, adolescents, and adults. <i>Journal of Applied Physiology</i> , 2021, 131, 1200-1210.	2.5	7
82	Enhancing intrinsic motivation for physical activity among adolescents with cystic fibrosis: a qualitative study of the views of healthcare professionals. <i>BMJ Open</i> , 2019, 9, e028996.	1.9	6
83	Physical activity for cystic fibrosis: perceptions of people with cystic fibrosis, parents and healthcare professionals. <i>ERJ Open Research</i> , 2020, 6, 00294-2019.	2.6	6
84	Influence of personality and self-efficacy on perceptual responses during high-intensity interval exercise in adolescents. <i>Journal of Applied Sport Psychology</i> , 2020, , 1-19.	2.3	6
85	The acute effect of high- and moderate-intensity interval exercise on vascular function before and after a glucose challenge in adolescents. <i>Experimental Physiology</i> , 2021, 106, 913-924.	2.0	6
86	Influence of thigh activation on the $\dot{V} \dot{V} \dot{E}^{\text{TM}}$ O <sub>2</sub> slow component in boys and men. <i>European Journal of Applied Physiology</i> , 2014, 114, 2309-2319.	2.5	5
87	Quantification of thigh muscle volume in children and adolescents using magnetic resonance imaging. <i>European Journal of Sport Science</i> , 2020, 20, 1215-1224.	2.7	5
88	Objectively Measured Aerobic Fitness is Not Related to Vascular Health Outcomes and Cardiovascular Disease Risk In 9-10 Year Old Children. <i>Journal of Sports Science and Medicine</i> , 2019, 18, 513-522.	1.6	5
89	The acute effect of exercise intensity on peripheral and cerebral vascular function in healthy adults. <i>Journal of Applied Physiology</i> , 2022, 133, 461-470.	2.5	5
90	Reliability of autonomic and vascular components of baroreflex sensitivity in adolescents. <i>Clinical Physiology and Functional Imaging</i> , 2018, 38, 986-993.	1.2	4

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91	Calibration and Cross-validation of Accelerometry in Children and Adolescents with Cystic Fibrosis. Measurement in Physical Education and Exercise Science, 2023, 27, 51-59.	1.8	4
92	A Compositional Analysis of Physical Activity, Sedentary Time, and Sleep and Associated Health Outcomes in Children and Adults with Cystic Fibrosis. International Journal of Environmental Research and Public Health, 2022, 19, 5155.	2.6	4
93	The effect of exercise intensity and cardiorespiratory fitness on the kinetic response of middle cerebral artery blood velocity during exercise in healthy adults. Journal of Applied Physiology, 2022, 133, 214-222.	2.5	4
94	Reliability and validity of using the global school-based student health survey to assess 24 hour movement behaviours in adolescents from Saudi Arabia. Journal of Sports Sciences, 2022, 40, 1578-1586.	2.0	4
95	Relationship between (non)linear phase II pulmonary oxygen uptake kinetics with skeletal muscle oxygenation and age in 11-15 year olds. Experimental Physiology, 2019, 104, 1929-1941.	2.0	3
96	Reliability of low-flow vasoreactivity in the brachial artery of adolescents. Journal of Clinical Ultrasound, 2019, 47, 133-138.	0.8	3
97	The impact of physical activity and exercise interventions for physical health in people with cystic fibrosis: protocol for a systematic review. Systematic Reviews, 2021, 10, 64.	5.3	3
98	Abstract 080: A 15-year Cumulative High Exposure to Lean Mass and Blood Pressure but not Fat Mass predicts the 7-year change in Carotid-Femoral Pulse Wave Velocity and Carotid Intima-Media Thickness: The ALSPAC study. Circulation, 2021, 143, .	1.6	3
99	Injuries and Training Practices in Competitive Adolescent Distance Runners: A Retrospective Cross-Sectional Study. Frontiers in Sports and Active Living, 2021, 3, 664632.	1.8	3
100	The acute and postprandial effects of sugar moiety on vascular and metabolic health outcomes in adolescents. Applied Physiology, Nutrition and Metabolism, 2021, 46, 906-914.	1.9	3
101	Sleep, Sedentary Time and Physical Activity Levels in Children with Cystic Fibrosis. International Journal of Environmental Research and Public Health, 2022, 19, 7133.	2.6	3
102	Confirming the Value of Swimming-Performance Models for Adolescents. International Journal of Sports Physiology and Performance, 2017, 12, 1177-1185.	2.3	2
103	Muscle function and size in the lumbar spine before and after a four week exercise intervention. Journal of Back and Musculoskeletal Rehabilitation, 2017, 30, 717-724.	1.1	2
104	Measurement of $\dot{V}_{I\dot{t}2max}$ in clinical groups is feasible and necessary. Journal of Applied Physiology, 2017, 123, 1017-1017.	2.5	2
105	Effects of exercise intensity on vascular and autonomic components of the baroreflex following glucose ingestion in adolescents. European Journal of Applied Physiology, 2019, 119, 867-878.	2.5	2
106	The role of cardiopulmonary exercise testing (CPET) in predicting mortality and morbidity in people with congenital heart disease: a systematic review and meta-analysis (Protocol). Journal of Congenital Cardiology, 2020, 4, .	0.5	2
107	CHAPTER 32. Bone Health: The Independent and Combined Effects of Calcium, Vitamin D and Exercise in Children and Adolescents. Food and Nutritional Components in Focus, 0, , 530-546.	0.1	2
108	Validity and Reliability Concerns Associated with Cardiopulmonary Exercise Testing Young People with Cystic Fibrosis. Respiration, 2016, 92, 61-62.	2.6	1

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109	Exercise capacity following a percutaneous endoscopic gastrostomy in a young female with cystic fibrosis: a case report. <i>Physiological Reports</i> , 2016, 4, e12904.	1.7	1
110	Prediction of peak oxygen uptake using the modified shuttle test – Methodological concerns and implications for clinical practice. <i>Pediatric Pulmonology</i> , 2019, 54, 1104-1105.	2.0	1
111	The Positive Relationship between Moderate-to-Vigorous Physical Activity and Bone Mineral Content Is Not Mediated by Free Leptin Index in Prepubertal Children: The PANIC Study. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 5365.	2.6	1
112	Two Protocols to Measure Mitochondrial Capacity in Women and Adolescent Girls: A 31P-MRS Preliminary Study. <i>Pediatric Exercise Science</i> , 2014, 26, 210-217.	1.0	0
113	Intracranial Cerebrovascular Reactivity by Traditional and Novel Methods in Young, Middle, and Old Aged Healthy Males and Females. <i>FASEB Journal</i> , 2022, 36, .	0.5	0