

# Berend E Westerhof

## List of Publications by Year in descending order

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75  
papers

4,264  
citations

236925

25  
h-index

114465

63  
g-index

75  
all docs

75  
docs citations

75  
times ranked

4924  
citing authors

#	ARTICLE	IF	CITATIONS
1	The arterial Windkessel. Medical and Biological Engineering and Computing, 2009, 47, 131-141.	2.8	837
2	The Relationship Between the Right Ventricle and its Load in Pulmonary Hypertension. Journal of the American College of Cardiology, 2017, 69, 236-243.	2.8	509
3	Quantification of Wave Reflection in the Human Aorta From Pressure Alone. Hypertension, 2006, 48, 595-601.	2.7	267
4	Time-domain cross-correlation baroreflex sensitivity. Journal of Hypertension, 2004, 22, 1371-1380.	0.5	204
5	Total arterial inertance as the fourth element of the windkessel model. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 276, H81-H88.	3.2	202
6	Nexfin Noninvasive Continuous Blood Pressure Validated Against Riva-Rocci/Korotkoff. American Journal of Hypertension, 2009, 22, 378-383.	2.0	195
7	Accuracy of Cuff-Measured Blood Pressure. Journal of the American College of Cardiology, 2017, 70, 572-586.	2.8	186
8	Finometer, finger pressure measurements with the possibility to reconstruct brachial pressure. Blood Pressure Monitoring, 2003, 8, 27-30.	0.8	179
9	Location of a Reflection Site Is Elusive. Hypertension, 2008, 52, 478-483.	2.7	127
10	Evaluation of Noninvasive Methods to Assess Wave Reflection and Pulse Transit Time From the Pressure Waveform Alone. Hypertension, 2009, 53, 142-149.	2.7	108
11	Steep fall in cardiac output is main determinant of hypotension during drug-free and nitroglycerine-induced orthostatic vasovagal syncope. Heart Rhythm, 2008, 5, 1695-1701.	0.7	92
12	Time course analysis of baroreflex sensitivity during postural stress. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H2864-H2874.	3.2	75
13	Wave Separation, Wave Intensity, the Reservoir-Wave Concept, and the Instantaneous Wave-Free Ratio. Hypertension, 2015, 66, 93-98.	2.7	73
14	Effects on Peripheral and Central Blood Pressure of Cocoa With Natural or High-Dose Theobromine. Hypertension, 2010, 56, 839-846.	2.7	70
15	Magnitude and return time of the reflected wave. Journal of Hypertension, 2012, 30, 932-939.	0.5	66
16	Sublingual Nitroglycerin Used in Routine Tilt Testing Provokes a Cardiac Output-Mediated Vasovagal Response. Journal of the American College of Cardiology, 2004, 44, 588-593.	2.8	60
17	Individualization of transfer function in estimation of central aortic pressure from the peripheral pulse is not required in patients at rest. Journal of Applied Physiology, 2008, 105, 1858-1863.	2.5	59
18	Treatment strategies for the right heart in pulmonary hypertension. Cardiovascular Research, 2017, 113, 1465-1473.	3.8	55

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19	Arterial pressure transfer characteristics: effects of travel time. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H800-H807.	3.2	47
20	Noninvasive Blood Pressure Measurement by the Nexfin Monitor During Reduced Arterial Pulsatility: A Feasibility Study. ASAIO Journal, 2010, 56, 221-227.	1.6	47
21	Snapshots of Hemodynamics. , 2019, , .		44
22	Changes in finger-aorta pressure transfer function during and after exercise. Journal of Applied Physiology, 2006, 101, 1207-1214.	2.5	38
23	Comparison of arterial waves derived by classical wave separation and wave intensity analysis in a model of aortic coarctation. Medical and Biological Engineering and Computing, 2009, 47, 211-220.	2.8	36
24	Red wine polyphenols do not lower peripheral or central blood pressure in high normal blood pressure and hypertension. American Journal of Hypertension, 2012, 25, 718-723.	2.0	33
25	Carotid Flow Augmentation, Arterial Aging, and Cerebral White Matter Hyperintensities. Arteriosclerosis, Thrombosis, and Vascular Biology, 2018, 38, 2843-2853.	2.4	31
26	Modeling the Instantaneous Pressure-Volume Relation of the Left Ventricle: A Comparison of Six Models. Annals of Biomedical Engineering, 2009, 37, 1710-1726.	2.5	30
27	Left ventricular wall stress normalization in chronic pressure-overloaded heart: a mathematical model study. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 279, H1120-H1127.	3.2	27
28	Validity and variability of xBRS: instantaneous cardiac baroreflex sensitivity. Physiological Reports, 2017, 5, e13509.	1.7	27
29	Influence of Age on Upper Arm Cuff Blood Pressure Measurement. Hypertension, 2020, 75, 844-850.	2.7	27
30	Noninvasive Arterial Blood Pressure Waveforms in Patients with Continuous-Flow Left Ventricular Assist Devices. ASAIO Journal, 2014, 60, 154-161.	1.6	26
31	Uniform tube models with single reflection site do not explain aortic wave travel and pressure wave shape. Physiological Measurement, 2018, 39, 124006.	2.1	26
32	Vena cava backflow and right ventricular stiffness in pulmonary arterial hypertension. European Respiratory Journal, 2019, 54, 1900625.	6.7	25
33	Contribution of the Arterial System and the Heart to Blood Pressure during Normal Aging - A Simulation Study. PLoS ONE, 2016, 11, e0157493.	2.5	24
34	Waves and Windkessels reviewed. Artery Research, 2017, 18, 102.	0.6	23
35	Wave transmission and reflection of waves - The myth is in their use. Artery Research, 2012, 6, 1.	0.6	22
36	Beta-blocking therapy in patients with the Marfan syndrome and entire aortic replacement. European Journal of Cardio-thoracic Surgery, 2004, 26, 901-906.	1.4	19

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37	Arterial hemodynamics and wave analysis in the frequency and time domains: an evaluation of the paradigms. <i>Medical and Biological Engineering and Computing</i> , 2009, 47, 107-110.	2.8	19
38	Arterial wave reflection decreases gradually from supine to upright. <i>Blood Pressure</i> , 2011, 20, 370-375.	1.5	19
39	Early return of reflected waves increases right ventricular wall stress in chronic thromboembolic pulmonary hypertension. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2020, 319, H1438-H1450.	3.2	18
40	Arterial Pressure Variation as a Biomarker of Preload Dependency in Spontaneously Breathing Subjects – A Proof of Principle. <i>PLoS ONE</i> , 2015, 10, e0137364.	2.5	17
41	The right treatment for the right ventricle. <i>Current Opinion in Pulmonary Medicine</i> , 2019, 25, 410-417.	2.6	15
42	Right atrial function is associated with right ventricular diastolic stiffness: RA–RV interaction in pulmonary arterial hypertension. <i>European Respiratory Journal</i> , 2022, 59, 2101454.	6.7	15
43	Abnormal haemodynamic postural response in patients with chronic heart failure. <i>ESC Heart Failure</i> , 2017, 4, 146-153.	3.1	14
44	Determinants of vascular and cardiac baroreflex sensitivity values in a random population sample. <i>Medical and Biological Engineering and Computing</i> , 2014, 52, 65-73.	2.8	13
45	Lower complexity and higher variability in beat-to-beat systolic blood pressure are associated with elevated long-term risk of dementia: The Rotterdam Study. <i>Alzheimer's and Dementia</i> , 2021, 17, 1134-1144.	0.8	13
46	Conduit arterial wave reflection promotes pressure transmission but impedes hydraulic energy transmission to the microvasculature. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2020, 319, H66-H75.	3.2	13
47	Arterial pressure variations as parameters of brain perfusion in response to central blood volume depletion and repletion. <i>Frontiers in Physiology</i> , 2014, 5, 157.	2.8	12
48	Support Vector Machine Based Monitoring of Cardio-Cerebrovascular Reserve during Simulated Hemorrhage. <i>Frontiers in Physiology</i> , 2017, 8, 1057.	2.8	12
49	Interplay of sex hormones and long-term right ventricular adaptation in a Dutch PAH-cohort. <i>Journal of Heart and Lung Transplantation</i> , 2022, 41, 445-457.	0.6	12
50	Hemodynamic mechanisms underlying prolonged post-faint hypotension. <i>Clinical Autonomic Research</i> , 2011, 21, 405-413.	2.5	11
51	Bridging cardiovascular physics, physiology, and clinical practice: Karel H. Wesseling, pioneer of continuous noninvasive hemodynamic monitoring. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2015, 308, H153-H156.	3.2	11
52	Accuracy of oscillometric blood pressure measurement in atrial fibrillation. <i>Blood Pressure Monitoring</i> , 2018, 23, 59-63.	0.8	11
53	Cardiac remodeling in aortic and mitral valve disease: a simulation study with clinical validation. <i>Journal of Applied Physiology</i> , 2019, 126, 1377-1389.	2.5	11
54	Aortic pressure wave reconstruction during exercise is improved by adaptive filtering: a pilot study. <i>Medical and Biological Engineering and Computing</i> , 2011, 49, 909-916.	2.8	10

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55	Bisoprolol therapy does not reduce right ventricular sympathetic activity in pulmonary arterial hypertension patients. <i>Pulmonary Circulation</i> , 2020, 10, 1-9.	1.7	10
56	Baroreflex sensitivity is higher during acute psychological stress in healthy subjects under Î²-adrenergic blockade. <i>Clinical Science</i> , 2011, 120, 161-167.	4.3	9
57	Right Ventricular Load and Function in Chronic Thromboembolic Pulmonary Hypertension: Differences between Proximal and Distal Chronic Thromboembolic Pulmonary Hypertension. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2019, 199, 1163-1166.	5.6	9
58	Pressure and Flow Relations in the Systemic Arterial Tree Throughout Development From Newborn to Adult. <i>Frontiers in Pediatrics</i> , 2020, 8, 251.	1.9	9
59	When right ventricular pressure meets volume: The impact of arrival time of reflected waves on right ventricle load in pulmonary arterial hypertension. <i>Journal of Physiology</i> , 2022, 600, 2327-2344.	2.9	9
60	Myocardial preload alters central pressure augmentation through changes in the forward wave. <i>Journal of Hypertension</i> , 2018, 36, 544-551.	0.5	8
61	Detecting central hypovolemia in simulated hypovolemic shock by automated feature extraction with principal component analysis. <i>Physiological Reports</i> , 2018, 6, e13895.	1.7	7
62	Estimation of Intraglomerular Pressure Using Invasive Renal Arterial Pressure and Flow Velocity Measurements in Humans. <i>Journal of the American Society of Nephrology: JASN</i> , 2020, 31, 1905-1914.	6.1	7
63	Central Versus Peripheral Blood Pressure in Malignant Hypertension; Effects of Antihypertensive Treatment. <i>American Journal of Hypertension</i> , 2013, 26, 574-579.	2.0	6
64	Wave Reflection: Wasted Effort in Left Ventricular Hypertrophy. <i>American Journal of Hypertension</i> , 2008, 21, 243-243.	2.0	5
65	The Arterial Load and Its Role on the Heart. <i>Hypertension</i> , 2015, 65, 29-30.	2.7	4
66	Identifying Isolated Systolic Hypertension From Upper-Arm Cuff Blood Pressure Compared With Invasive Measurements. <i>Hypertension</i> , 2021, 77, 632-639.	2.7	4
67	Distinct morphologies of arterial waveforms reveal preload, contractility, and afterload-deficient hemodynamic instability: An in silico simulation study. <i>Physiological Reports</i> , 2022, 10, e15242.	1.7	4
68	Cardiac oxygen supply is compromised during the night in hypertensive patients. <i>Medical and Biological Engineering and Computing</i> , 2011, 49, 1073-81.	2.8	3
69	Central-to-peripheral stiffness gradients determine diastolic pressure and flow fluctuation waveforms: time domain analysis of femoral artery pulse. <i>Journal of Hypertension</i> , 2022, 40, 338-347.	0.5	3
70	Application of the wave-reservoir approach to different aortic sites. <i>Journal of Hypertension</i> , 2018, 36, 963-964.	0.5	2
71	Modeling Arterial Pulse Pressure From Heart Rate During Sympathetic Activation by Progressive Central Hypovolemia. <i>Frontiers in Physiology</i> , 2018, 9, 353.	2.8	2
72	Central Hypovolemia Detection During Environmental Stress—A Role for Artificial Intelligence?. <i>Frontiers in Physiology</i> , 2021, 12, 784413.	2.8	1

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73	The success of pulmonary hypertension treatment: improved cardiac function by reducing the arterial load. <i>Pulmonary Circulation</i> , 2018, 8, 1-2.	1.7	0
74	Pulmonary arterial load and ventricular-arterial coupling in pulmonary hypertension. , 2022, , 899-915.		0
75	Reply from Masafumi Fukumitsu, Anton Vonk Noordegraaf and Berend E. Westerhof. <i>Journal of Physiology</i> , 2022, 600, 3635-3635.	2.9	0