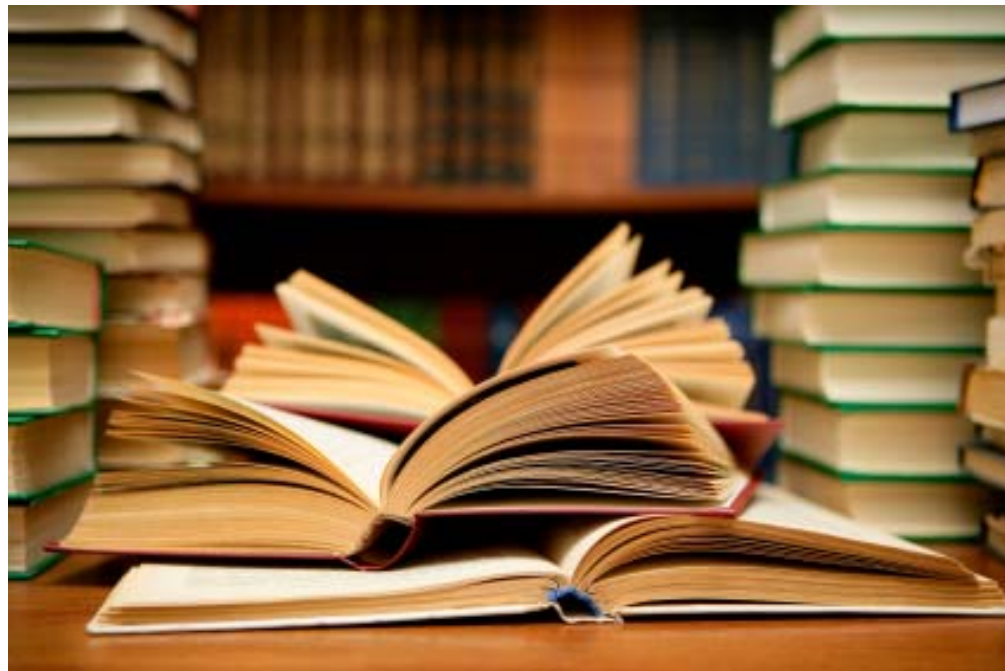

SCIENTIFIC EVIDENCE

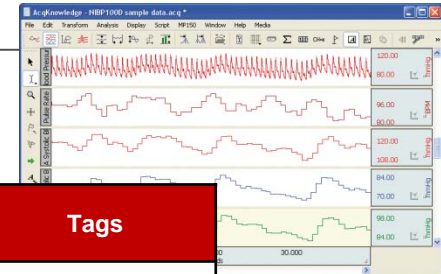
CNAP[®] HD (sold as NIBP100D/100D-HD by BIOPAC)



Validation & Research Papers Overview
29.10.2015, v1.8

Scientific Evidence CNAP[®] HD (sold as NIBP100D/100D-HD by BIOPAC)

RESEARCH – BIOPAC NIBP100D



Nr.	University /Hospital	Author	Field	Source	Impact	Year	Name	Tags
021	Uttarakhand, India	Telles et al.	Research	Medical Science Monitor Basic Research	N.A.	2014	Blood Pressure and Heart Rate Variability during Yoga-Based Alternate Nostril Breathing Practice and Breath Awareness.	Research, Yoga
035	Florida, USA	Sanchez-Gonzalez et al.	Research	Journal of Human Hypertension	2.700	2015	Trait anxiety mimics age-related cardiovascular autonomic modulation in young adults	Research, CV, BP, HRV, BPV
036	Sta Barbara, CA, USA	Cornick & Blascovich	Research	Health Psychology Open	2.319	2015	Consequences of objective self-awareness during exercise	Research, exercise, CV
037	Milwaukee & Michigan, USA	Pereira et al.	Research	European Journal of Applied Physiology	2.187	2015	Age and sex differences in steadiness of elbow flexor muscles with imposed cognitive demand	Research, Gerontology, BP, HR
038	Austin, TX, USA	Hurr et al.	Research	Experimental Physiology	2.669	2015	Attenuated cerebral vasodilatory capacity in response to hypercapnia in college-aged African Americans	Research, Physiology, Kinesiology, Hypercapnia, Vasodilation



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RESEARCH



Nr.	University /Hospital	Author	Field	Source	Impact	Year	Name	Tags
028	Texas USA	Gonzales et al.	Research	Experimental Gerontology	3.529	2015	Arterial stiffness is higher in older adults with increased perceived fatigue and fatigability during walking	Research, Gerontology, older adults, arterial stiffness
022	Graz Austria	Trapp et al.	Research	PLoS ONE	3.534	2014	Impact of Mental and Physical Stress on Blood Pressure and Pulse Pressure under Normobaric versus Hypoxic Conditions	Research, mental and physical Stress, high altitude
023	Austin USA	Lee et al.	Research	Journal of Applied Physiology	3.434	2013	The magnitude of heat-stress induced reductions in cerebral perfusion does not predict heat-stress induced reductions in tolerance to a simulated	Research, Biopac, heat stress, brain blood flow, blood pressure, hemorrhage
024	Erlangen Germany	Hilz et al.	Research	Stroke; a journal of cerebral circulation	6.018	2011	High NIHSS values predict impairment of cardiovascular autonomic control.	Research, acute stroke, autonomic imbalance, poststroke prognosis
025	Graz Austria	Pfurtscheller et al.	Research	Neuroscience letters	2.055	2010	Does conscious intention to perform a motor act depend on slow cardiovascular rhythms?	Research, slow blood pressure oscillations, self-paced movements, heart rate, baroreflex loop

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VALIDATION



Nr.	University /Hospital	Author	Field	Source	Impact	Year	Name	Tags
041	Graz, Austria	Smolle et al.	ICU	Anesthesia & Analgesia	3.472	2015	The Accuracy of the CNAP(R) Device Compared with Invasive Radial Artery Measurements for Providing Continuous Noninvasive Arterial Blood Pressure Readings at a Medical Intensive Care Unit: A Method-Comparison Study.	ICU, CNAP® BP vs. IBP
033	Hamburg Germany	Wagner et. al.	ICU	Journal of Clinical Monitoring and Computing	1.448	2015	Continuous noninvasive cardiac output determination using the CNAP® Monitor: evaluation of a cardiac output algorithm for the analysis of volume clamp method-derived pulse contour.	ICU, CO vs. TD
032	Hamburg Germany	Wagner et al.	ICU	Journal of Clin Monit Comp	1.448	2015	Continuous noninvasive arterial pressure measurement using the volume clamp method: an evaluation of the CNAP device in intensive care unit patients	Medical ICU, CNAP® vs. IBP
029	Bangalore India	Kumar et al.	Anesthesia	Indian Journal of Anaesthesia	N.A.	2015	Evaluation of continuous non-invasive arterial pressure monitoring during induction of general anaesthesia in patients undergoing cardiac surgery	CNAP® vs. IBP, Cardiac surgery, induction of anesthesia
001	Kiel Germany	Ilies et al.	ICU	European Journal of Anaesthesiology	2.792	2014	Comparison of a continuous noninvasive arterial pressure device with invasive measurements in cardiovascular postsurgical intensive care patients: A prospective observational study.	ICU, CNAP® vs. IBP, Cardiac arrhythmia vs. catecholamine dosage vs. weaning procedures

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VALIDATION



Nr.	University /Hospital	Author	Field	Source	Impact	Year	Name	Tags
002	Kiel Germany	Ilies et al.	Anesthesia	British Journal of Anesthesia	4.354	2012	Investigation of the agreement of a continuous non-invasive arterial pressure device in comparison with invasive radial artery measurement	CNAP® vs. IBP, induction, maintenance, hypotension, normotension
003	Bangalore India	Jagadeesh et al.	ICU	Annals of Cardiac Anaesthesia	N.A.	2012	A comparison of a continuous noninvasive arterial pressure (CNAP™) monitor with an invasive arterial blood pressure monitor in the cardiac surgical ICU.	Cardiac ICU, CNAP® vs. IBP
004	Vienna Austria	Hahn et al.	Anesthesia	British Journal of Anesthesia	4.354	2012	Clinical validation of a continuous non-invasive haemodynamic monitor (CNAP™ 500) during general anaesthesia	General Anesthesia, CNAP® vs. IBP
005	Bordeaux France	Biais et al.	Anesthesia	ANNFAR	0.836	2010	Continuous non invasive arterial pressure measurement: Evaluation of CNAP device during vascular surgery	CNAP® vs. IBP, vascular surgery
006	Erlangen Germany	Jelezcov et al.	Anesthesia	British Journal of Anesthesia	4.354	2010	Precision and accuracy of a new device (CNAP™) for continuous non invasive arterial pressure monitoring: assessment during general anaesthesia	CNAP® vs. IBP, abdominal surgery, cardio-, or neurosurgery

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VALIDATION THEORY



Nr.	University /Hospital	Author	Field	Source	Impact	Year	Name	Tags
030	Graz Austria	Fortin et al.	Anesthesia	Anesthesiology	6.168	2015	Is the Standard Supplied by the Association for the Advancement of Medical Instrumentation the Measure of All Things for Noninvasive Continuous Hemodynamic Devices?	Question if available evaluation standards for hemodynamic devices are suitable for noninvasive continuous methods
031	Irvine US	Cannesson	Anesthesia	Anesthesiology	6.168	2015	In reply: Is the Standard Supplied by the Association for the Advancement of Medical Instrumentation the Measure of All Things for Noninvasive Continuous Hemodynamic Devices?	Confirmation of need for suitable evaluation standards for noninvasive continuous hemodynamic devices