

Baroreflex

[View the current Baroreflex InDepth page on BioPortfolio.com](http://www.bioportfolio.com/indepth/Baroreflex.html)

(<http://www.bioportfolio.com/indepth/Baroreflex.html>)

In cardiovascular physiology, the baroreflex or baroreceptor reflex is one of the body's homeostatic mechanisms for maintaining blood pressure. It provides a negative feedback loop in which an elevated blood pressure reflexively causes blood pressure to decrease; similarly, decreased blood pressure depresses the baroreflex, causing blood pressure to rise. The system relies on specialized neurons in the aortic arch, carotid sinuses, and elsewhere to monitor changes in blood pressure and relay them to the brainstem. Subsequent changes in blood pressure are mediated by the autonomic nervous system.



Recent Publications on Baroreflex:

- [Point: Counterpoint "Respiratory sinus arrhythmia is due to a central mechanism vs. the baroreflex mechanism."](#)
*n/a...*23rd August, 2008
Medical College of Virginia.- J Appl Physiol. 2008 Aug 21. ([DOI Direct Link](#))
- [The cholinergic system in cyclophosphamide induced-Chagas dilated cardiomyopathy in Trypanosoma cruzi infected rats: an electrocardiographic study.](#)
*Chronic Chagasic Cardiomyopathy (CCC) has been related to the cholinergic...*23rd August, 2008
Unidad de Bioquímica Jose Antonio Moreno Yanes, Decanato de Medicina,- Invest Clin. 2008 Jun;49(2):207-24.
- [Two anomalous cardiovascular responses to active standing in essential hypertension.](#)
*INTRODUCTION: In a previous work we studied, non-invasively, autonomic...*23rd August, 2008
Laboratório Moniz de Bettencourt, Instituto de Fisiologia, Faculdade de- Rev Port Cardiol. 2008 May;27(5):613-21.
- [Role of hyperglycaemia in the pathogenesis of hypotension observed in type-1 diabetic rats.](#)
*The role of hyperglycaemia in the pathogenesis of hypotension in diabetic...*22nd August, 2008
Department of Pharmacy, Tajen University, Yen-Pou, Ping Tung Shien,- Int J Exp Pathol. 2008 Aug;89(4):292-300. ([DOI Direct Link](#))
- [The impact of blood pressure and baroreflex sensitivity on wind-up.](#)
*BACKGROUND: Elevated resting blood pressure (BP) and spontaneous...*21st August, 2008
Department of Anesthesiology, Vanderbilt University Medical Center,- Anesth Analg. 2008 Sep;107(3):1018-25. ([DOI Direct Link](#))
- [Role of the Multidomain Protein Spinophilin in Blood Pressure and Cardiac Function Regulation.](#)
*Spinophilin controls intensity/duration of G protein-coupled receptor...*20th August, 2008
Max Delbrück Center for Molecular Medicine, Berlin, Germany; the Institute- Hypertension. 2008 Aug 18. ([DOI Direct Link](#))
- [DYNAMIC ADAPTATION OF CARDIAC BAROREFLEX SENSITIVITY TO PROLONGED EXPOSURE TO MICROGRAVITY: DATA FROM A 16-DAY SPACEFLIGHT.](#)

- Aims. This study explored the process of arterial baroreflex adaptation to...*5th May, 2007
Fondazione Don C. Gnocchi.- J Appl Physiol. 2008 Aug 28. ([DOI Direct Link](#))
- [Cardiovascular dynamics in healthy subjects with differing heart rate responses to tilt.](#)
*Orthostatic stress such as head-up tilt (HUT) elicits a wide range of...*5th May, 2007
Mayo Clinic College of Medicine.- J Appl Physiol. 2008 Aug 28. ([DOI Direct Link](#))
 - [Schizophrenia and sudden cardiac death-A review.](#)
*Schizophrenia is a devastating mental disorder, which is often associated...*5th May, 2007
Department of Psychiatry, University of Kuopio, Kuopio, Finland.- Nord J Psychiatry. 2008 Aug 27:1-4.
([DOI Direct Link](#))
 - [Status epilepticus produces chronic alterations in cardiac sympathovagal balance.](#)
*Purpose: Status epilepticus (SE) activates the autonomic nervous system,...*5th May, 2007
Department of Pharmacology and Toxicology, College of Pharmacy, University- Epilepsia. 2008 Aug 25. ([DOI Direct Link](#))
 - [Restorative Effect of Atrial Natriuretic Peptide or Chronic Neutral Endopeptidase Inhibition on Blunted Cardiopulmonary Vagal Reflexes in Aged Rats.](#)
*Arterial baroreflex function diminishes with age, but whether...*5th May, 2007
Howard Florey Institute, The University of Melbourne, Victoria, Australia.- Hypertension. 2008 Aug 28. ([DOI Direct Link](#))
 - [Investigation of heart rate and blood pressure variability, baroreflex sensitivity, and approximate entropy in acute brain injury patients.](#)
*PURPOSE: The purpose of the study was to investigate longitudinally over...*5th May, 2007
Department of Anesthesiology and Intensive Care Medicine, Intensive Care- J Crit Care. 2008 Sep;23(3):380-6. Epub 2007 Dec 11. ([DOI Direct Link](#))
 - [Impaired arterial baroreflex function before nitrate-induced vasovagal syncope during head-up tilt test.](#)
*Aims The aim of this study was to evaluate arterial baroreflex control of...*5th May, 2007
Cardiology Unit, Emergency and Organ Transplantation Department,- Europace. 2008 Aug 22. ([DOI Direct Link](#))
 - [Parasympathetic response to acute stress is attenuated in young Zucker obese rats.](#)
*We compared arterial blood pressure (BP) and heart rate (HR) control in 9-...*5th May, 2007
Department of Physiology, Faculty of Medicine, Suez Canal University,- Auton Neurosci. 2008 Aug 21. ([DOI Direct Link](#))
 - [The interaction between pupil function and cardiovascular regulation in patients with acute schizophrenia.](#)
*OBJECTIVE: Cardiac autonomic dysregulation has been reported in patients...*5th May, 2007
Department of Psychiatry, Friedrich-Schiller-University, Philosophenweg 3,- Clin Neurophysiol. 2008 Aug 21. ([DOI Direct Link](#))

BioNews Results for Baroreflex

- [Reports summarize heart failure animal studies research from Loyola University, Department of Pharmacology](#)
Therapeutics Daily: Aug 21 2008 10:06PM Matching: baroreflex
- [Heart rate turbulence predicts death risk in HF patients](#)
MedWire News: Aug 11 2008 6:44PM Matching: baroreflex
- [Marker of autonomic dysfunction predicts sudden-death risk in heart failure](#)
Theheart.org: Aug 8 2008 4:52AM Matching: baroreflex
- [AChE Inhibitor May Finesse Baroreflex Problems Common to Ganglionopathies](#)
Consultant Live: Aug 6 2008 4:27PM Matching: baroreflex



Baroreflex Patents:

- 7020524- [Implantable cardiac stimulation device having optimized AV/PV delays for improved atrial kick during automatic capture and threshold determinations](#)
- 7162303- [Renal nerve stimulation method and apparatus for treatment of patients](#)
- 7163512- [Method and apparatus for facilitating physiological coherence and autonomic balance](#)
- 7181277- [Methods and systems for reducing the likelihood of arrhythmia onset](#)
- 7183255- [Method for stabilizing blood pressure in hemodialysis subjects](#)
- 7194313- [Baroreflex therapy for disordered breathing](#)
- 7218964- [Closed-loop neuromodulation for prevention and treatment of cardiac conditions](#)
- 7221979- [Methods and apparatus for the regulation of hormone release](#)
- 7236822- [Wireless electric modulation of sympathetic nervous system](#)
- 7239912- [Electric modulation of sympathetic nervous system](#)
- 7245967- [Parasympathetic nerve stimulation for termination of supraventricular arrhythmias](#)
- 7158832- [Electrode designs and methods of use for cardiovascular reflex control devices](#)
- 7155284- [Treatment of hypertension](#)
- 7149574- [Treatment of conditions through electrical modulation of the autonomic nervous system](#)
- 7039461- [Cardiac pacing system for prevention of ventricular fibrillation and ventricular tachycardia episode](#)
- 7070803- [Controlled release pharmaceutical composition for oral use containing midodrine and/or active metabolite, desglymidodrine](#)
- 7074190- [Non-invasive apparatus system for monitoring drug hepatotoxicity and uses thereof](#)
- 7079887- [Method and apparatus for gauging cardiac status using post premature heart rate turbulence](#)
- 7081747- [System and method for characterizing a sample by low-frequency spectra](#)
- 7090648- [External addition of pulses to fluid channels of body to release or suppress endothelial mediators and to determine effectiveness of such intervention](#)
- 7094532- [Genetic mutation underlying orthostatic intolerance and diagnostic and therapeutic methods relating thereto](#)
- 7104958- [Systems and methods for investigating intracranial pressure](#)
- 7138123- [Methods for diagnosing and treating dysautonomia and other dysautonomic conditions](#)
- 7144706- [Methods of modulating localization and physiological function of IP3 receptors](#)
- 7260431- [Combined remodeling control therapy and anti-remodeling therapy by implantable cardiac device](#)
- 7273872- [Inhibition of inflammation using .alpha. 7 receptor-binding cholinergic agonists](#)
- 7367941- [Detection and characterization of cholinergic oscillatory control in peripheral microvasculature](#)
- 7373204- [Implantable device and method for treatment of hypertension](#)
- 7374541- [System for determining endothelial dependent vasoactivity](#)
- 7375073- [Angiotensin-\(1-7\) and angiotensin-\(1-7\) agonists for inhibition of cancer cell growth](#)
- 7378420- [Urea derivatives as calcium channel blockers](#)
- 7381185- [Method and apparatus for detecting physiologic signals](#)
- 7389149- [Connection structures for extra-vascular electrode lead body](#)
- 7396333- [Prediction of disordered breathing](#)
- 7407485- [Monitoring pain-related responses of a patient](#)
- 7416848- [DNA encoding SNORF25 receptor](#)
- 7363076- [Treatment of conditions through modulation of the autonomic nervous system](#)
- 7348305- [Inhibitor of cardiac tachyarrhythmias](#)

- 7333643- [System and method for facilitating cardiac intervention](#)
- 7277746- [Method and apparatus for analyzing heart rate variability](#)
- 7277761- [Vagal stimulation for improving cardiac function in heart failure or CHF patients](#)
- 7288257- [Diagnosis and treatment of human dormancy syndrome](#)
- 7291112- [Method and apparatus for control of non-invasive parameter measurements](#)
- 7317380- [Visual recognition support system](#)
- 7318834- [Apparatus and method for hypothermia and rewarming by altering the temperature of the cerebrospinal fluid in the brain](#)
- 7321793- [Vagal stimulation for atrial fibrillation therapy](#)
- 7322973- [Method and apparatus for preventing atrial fibrillation](#)
- 7324845- [Assessment of sleep quality and sleep disordered breathing based on cardiopulmonary coupling](#)
- 7327862- [System and method for facilitating cardiac intervention](#)
- 7417038- [Methods of treating cachexia](#)

Resources from the [NCBI](#) used in this document, [NCBI's standard disclaimer applies](#).

Nothing in this document should be used in place of personal medical advice from your own qualified medical practitioner. See BioPortfolio.com [User Agreement](#)

Send comments and feedback to:

Peter Barfoot Managing Director, BioPortfolio Ltd.

UK Tel: (+44) 1300 321501

USA Voicemail and Fax: (+1) 415 680 2472

[Peter Barfoot peter.barfoot@bioportfolio.com](mailto:peter.barfoot@bioportfolio.com)

All rights reserved. All other trademarks recognized.

BioPortfolio Limited is registered in England & Wales at Wessex Barn, Dorchester Road, Frampton, Dorset, DT2 9NB, UK. No.3312883 VAT No. GB 744 6483 10

Copyright 1997-2008 - BioPortfolio Limited.

