



Heart rate variability

<https://libcat.nshealth.ca/en/permalink/provcat33401>

Available Online: View e-Book

Author: Ernst, Gernot

Responsibility: Gernot Ernst

Place of Publication: London

Publisher: Springer

Date of Publication: c2014

Physical Description: 1 online resource (xvi, 352 pages)

ISBN: 9781447143093 (electronic bk.)
9781447143086

Subjects (MeSH): Heart Rate
Arrhythmias, cardiac
Cardiovascular Physiological Phenomena

Subjects (LCSH): Heart Rate
Arrhythmias, Cardiac
Heart beat
Arrhythmia

Abstract: This book is an evaluation of heart rate variability (HRV), the tendency for the heart rate to oscillate, increasing and decreasing depending on a number of factors. Such oscillations can give information on the state of the complex systems involved and can reveal a higher mortality risk. The author discusses the basic functional structures responsible for HRV and the evidence for this. In addition, the book provides a framework to understand HRV within the perspective of systems biology and presents basic principles and related mathematical models. Heart Rate Variability provides a thorough investigation of the clinical aspects of the concept, defining the level of risk, the practical management algorithms and clarification of the common mechanisms, such as heart rate turbulence. As such, this book will be of interest to all involved in the research and management of all the cardiovascular conditions related to this phenomenon.

Contents: Part I. Theoretical and Pathophysiological Background – History of Heart Rate Variability – Linear, Nonlinear and Complex Systems – The Autonomic Nervous System – Methodological issues – HRV and Alterations in the Vegetative Nervous System – Pathophysiological and Systems Biology considerations – Part II. Clinical Studies and Applications – General Mortality – Cardiology – Perioperative Care – Intensive Care and Trauma – Neurologic disorders – Pain – HRV in Oncology and Palliative Medicine – Psychiatry – Diabetes – Other Studies – Conclusion.

Format: e-Book

Location: Online