

## Short-term measurement of the Pulse Rate Variability (PRV) in overweight patients with 2 type diabetes

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### Abstract:

**Background:** The problem Pulse Rate Variability (PRV) in type 2 diabetes and increased body mass index has not been studied enough. Type 2 diabetes affects the peripheral vasculature leading to coronary, cerebral and peripheral vascular disease associated with oxidative stress and inflammatory processes. Similarly increased body weight also changes oxidative stress and inflammation that may adversely affect diabetes disease progression.

**Methods:** The Heart Rhythm Scanner Special Edition Version 1 (Biocom Technologies, USA) was used for PPG (Photoplethysmography) recording and PRV analysis.

**Results:** Our study found that short-term measurement of PRV shows some statistically significant differences using multifactorial analysis of type 2 diabetes with overweight and a healthy control group with normal weight. Short-term measurements of PRV can be used as an alternative method for HRV. PPG-method can be used as preliminary screening tool for large populations with increased risk of heart problems. This is because the PPG method is simple to use and takes much less time.



### Biography:

Dr. Ivan Domuschiev was graduated in 1986 the Medical University in Plovdiv city with fully excellent marks as promotor of the course (speciality“medicine“). He was defended a dissertation with a conference on the scientific degree”Philosophy Doctor in Medicine“(Ph.D.) in the field of the



endocrinology (diabetology). He was long time Assistant-Professor in the internal diseases and endocrinology as well as he leded clinical exercises in postgraduated teaching. He worked as Assistant-Professor at the Clinic of Endocrinology – Medical University in Plovdiv, Clinic of Endocrinology.His scientific publications are in the field of endocrinology, diabetology, cardiology and other areas of the internal medicine, neurovegetology, phytotherapy and also anti-aging medicine. He has own scientific investigations in the field of the heart rate variability (HRV) in patients with various diseases.

### Speaker Publications:

- 1.Analysis of Heart Rate Variability by Applying Nonlinear Methods with Different Approaches for Graphical Representation of Results.

[18th Global Conference on Diabetes, Endocrinology and Primary Healthcare](#) August 21-22, 2020- Webinar.

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