



- Non invasive patented method for the early diagnosis of atherosclerosis
- Full arterial tree assessment
- Easy control of data acquisition









BPULS is a device to determine Pulse Wave Velocity in humans based on the method and measurements introduced by Cardiologist Dr. Helen Marcoyannopoulou Fojas. The method is protected by the international patent publication number WO/2000/013584 and US Pat US 6537226.

Dr. Helen Marcoyannopoulou Fojas has introduced a new and original method of determining Pulse Wave Velocity, which is an indirect way of detecting the elasticity of the arterial wall. The method measures the time delay between the recorded pulses of the left external carotid artery as the central point and the left dorsalis



pedis artery as the peripheral point . This time delay is normally affected by the age and the height of subjects examined. A shorter time delay would indicate decrease in arterial wall elasticity. It is a valuable tool to diagnose atherosclerosis in its very early stages so that proper measures can be implemented to delay its progress.

The optical sensors technology developed by Standard Instruments allows to have a very high quality signals. Adaption to individual signal levels is easily done with the system.

A single lead ECG is simultaneously recorded with the arterial pulses for easier identification of the latter. The Q wave of the ECG serves as the reference point for measurement of the time delay between the two pulses.

## **Technical Data**

2 Channels for Optical Blood Pulse Wave Recording 1 Channel ECG

Weight 220 g **USB** Powered device

**Data Resolution** 

Sample rates 100-500 Hz

**Software Requirements** 

Computer
Display
Operating System

USB connection, 2 GB RAM 1 GB free HD space, Mouse Minimum 800 X 600 Windows XP, Windows Vista, Windows 7 Mac OS X 10.5 or higher Linux Ubuntu 8.04 LTS or higher

**CE**<sub>0297</sub>

An extensive range of accessories is available.





