Cardio Wave Analyser

ANS Function & Blood Circulation Assessment
Heart Rate Variability [HRV]

HRV test measures the overall health status and the autonomic nervous system function that is composed of sympathetic nerve system (SNS) and parasympathetic nerve system (PNS).

SNS plays a role of an accelerator in our body while PNS is functioning as a brake. If one of them is broken, it will be easier to get cardiovascular diseases as ANS is not balanced.

For the healthy people, HRV shows complicated and irregular heart rates while the unhealthy people have simple and regular heart rates.

Stress & Homeostasis

HRV analysis is based on the Sinus Rhythm so that it is very important to get clear signals. It is a valuable means to evaluate the general health status. Cardio Wave is in accordance with standard guidelines of task force team. We developed our own reference for Asians. The client can choose one of them which is "Asia" or "West" reference.
Accelerated Plethysmograph [APG]

APG test measures the blood circulation state and an aging level of blood vessel with the vascular elasticity and hardening through the signal at the finger tip.

Waveform Pattern According to the Vessel State

1 Level 2 Level 3 Level 4 Level 5 Level 6 Level 7 Level

Aging Progress

The arteries are sites of a very common disease such as atherosclerosis. Here, the atherosclerotic plaque has formed in a coronary artery. It consists of cholesterol, inflammatory cells, and fibrosis, and it reduces the space for blood flow in the artery.
HRV + APG Clinical Applications

HRV as a predictable indicator of the cardiovascular disease (Autonomic Nerve Balance Test)

- Predict the cardiovascular disease
- Evaluate the autonomic nerve balance
- Predict the high risk factor with the stress status

APG as a predictable indicator of the peripheral disease (Peripheral Circulation Disorder Test)

- Peripheral nerve disorder
- Cardiovascular disease like myocardial infarction
- Endothelial dysfunction like arteriosclerosis
Main Features

- Simple connection to a PC.
- Small enough to fit in a purse or a laptop case.
- Color graphical displays on the PC during the test.
- Color report prints on standard letter paper.
- Reasonable price with all functions included.

Foreign Certificates

FDA

SFDA

CE
## Specifications

### Configuration
1. HRV + APG Module
2. PPG Probe
3. Power Adaptor
4. USB Interface
5. S/W CD

### H/W Specs
1. **Power**
   - 100~240VAC, 0.4A, 50~60Hz
   - Power Fail Protection
2. **Environment**
   - Operation Temperature: 10~40°C (50~104°F)
3. **System**
   - Built in Body / Power / finger probe
   - O/S : Window XP & Window Vista
4. **Dimension**
   - 6"W x 5.5"D x 1.4"H / 15cmW x 12cmD x 3.5cmH
5. **Weight**
   - 650 g / 1.43 LBS

### Performance
1. **HR**
   - Heart rate measurement range: 30~300bpm
   - Accuracy: ± 2 %
   - Input Signal Range: ± 0.05~5mV peak

### Functions
1. **Heart Rate Variability (HRV)**
   - HRV is defined as the degree of fluctuation in the length of the interval between heart beats. It is used to:
     - Predict cardiovascular disease
     - Analyze the ANS
     - Evaluate the stress response

2. **Accelerated Plethysmography (APG)**
   - APG is defined using a mathematical term. It is the 2nd differentiated waveform of the pulsation gathered by the optical finger probe. It is used to indicate and predict:
     - Peripheral circulation disorder
     - Arterial stiffness
     - Cardiovascular disease

### Price & Warranty
**CardioWA $4495.00**
1. **Standard**
   - The warranty is for one year with options for extended years. Warranty repair is performed in our factory authorized repair center in San Marcos, Texas.

### Features of CardioWA
1. Assessment of Autonomic Nervous System function and Peripheral Circulation at the same time.
2. Provides report for the patient.
3. Simple and non-invasive quick measurement.
4. Outstanding accuracy & reproducibility.
5. Reliable and scientific evaluation tool according to HRV Guidelines and Clinical References.
6. Training / Certification Course which can be completed without travel.

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