Heart Rhythm Scanner

PROFESSIONAL EDITION

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Comprehensive Health Assessment system

In the USA for research and educational purpose only

The Heart Rhythm Scanner is a versatile instrument for measuring and evaluating the Heart Rate Variability (HRV) in the way you need it. It does live recording of the electrocardiograph (ECG) or Photoplethysmographs (PPG) signal, computing of the instantaneous changes of Heart Rate Variability after session is done.

Heart Rhythm Scanner uses cutting edge technology to give you the ability to measure parasympathetic and sympathetic activities and assess the autonomic balance in the body (evaluation of the autonomic nervous system's regulatory function).
The Heart Rhythm Scanner completes full HRV analysis and creates detailed reports for all trials.

Assessments included in HRS PE

- **Autonomic Balance Test**
  A standard 5-min resting HRV assessment is conducted.
  A standard short-term HRV analysis is performed.
- **Cardiovascular Health Test**
  A standard standup assessment is conducted. Then analysis of the autonomic balance before and after standup along with standup maneuver analysis is performed.
- **Baroreceptor Sensitivity Test**
  A standard deep metronomic breathing assessment is conducted. Then analysis of HR variation caused by paced breathing is performed.

Contact Information

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Key Features

- **Comprehensive Autonomic Assessment**
- **Autonomic Balance Test**
- **Cardiovascular Health Test**
- **Baroreceptor Sensitivity Test**
- **Flexible testing protocols**
- **Automatic artifact detection and visual data editing**
- **Multiple hardware configuration**
- **Adjustable time scale for the raw signal graph**
- **Detailed assessment report on HRV results of selected test**
- **Progress reports on HRV results across all tests**
- **Import test data from HRV Live! picked with interactive data selection protocol**
- **Export data in Excel or ASCII format**

The Heart Rhythm Scanner software was developed according to the standards and mathematical procedures for short-term HRV analysis set forth by:

- **The European Society of Cardiology**
- **The North American Society of Pacing and Electrophysiology**
- **Association for the Advancement of Medical Instrumentation**

Normative database included

Software provides analysis of HRV test results based on a large population normative database.

Interpretation of test results included in report for all types of tests!

Hardware Options

Electrocardiographs (ECGs)

ECG BC-4000 (USB)

ECG BC-5000 (Bluetooth-wireless)

Photoplethysmographs (PPGs)

PPG BC-1200 (USB)

PPG HRS-08WE (Bluetooth-wireless)

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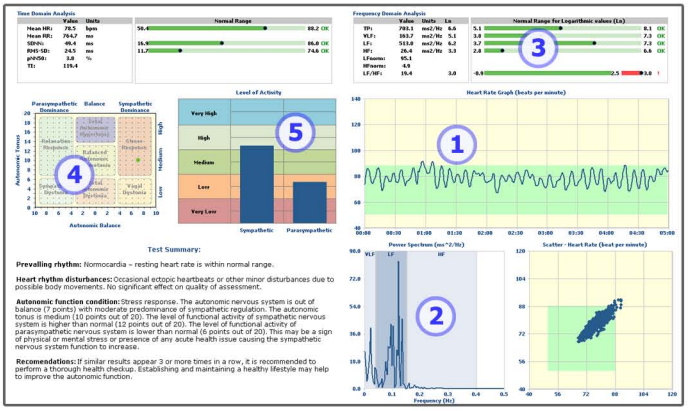
Health Assessment Reports

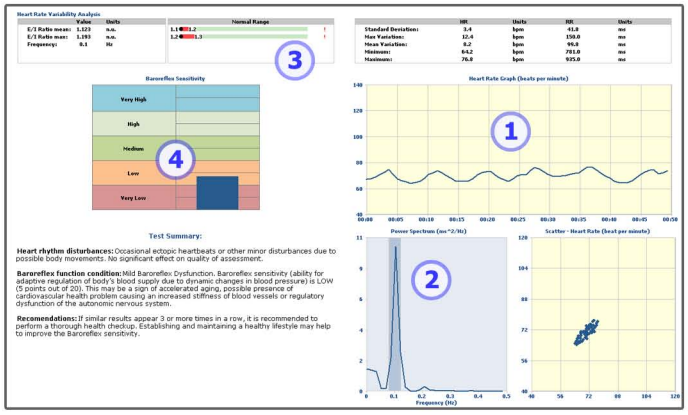
Examples of some most popular reports are shown.
The Heart Rhythm Scanner also creates many other types of reports. Please visit our website for more information.

Autonomic Balance
Single Standard Report



1. The graph shows heart rate during the Autonomic Balance Test.
2. The graph shows the power spectrum of heart rate during the test. VLF, LF and HF frequency ranges are presented on the graph.
3. The numerical chart shows time-domain and frequency-domain HRV parameters and their normal rage.
4. The diagram shows the resulting assessment of the autonomic nervous system regulatory function condition based on two variables: Autonomic Balance and Autonomic Tonus.
5. The diagram shows the level of sympathetic and parasympathetic activity compared to their age depended normal range.

Baroreceptor Sensitivity
Single Standard Report



1. The heart rate graph shows the amplitude of waves synchronized to the slow breathing process. The amplitude depends on the baroreflex sensitivity.
2. The power spectrum graph shows the frequency peak. If this peak is in 0.1Hz, it indicates that breathing was synchronized and the test requirements were followed.
3. The numerical chart shows HRV parameters and their normal range for the breathing test.
4. The diagram shows the resulting bar of the baroreflex sensitivity.

Cardiovascular Health
Single Standard Report

1. The graph shows the heart rate during three phases of the Cardiovascular Health Test: baseline, standup maneuver, and recovery. One minute of standup maneuver indicates how the cardiovascular system reacts to the maneuver and recovers to the baseline level.
2. The graph shows the power spectrum of heart rate before the standup maneuver.
3. The graph shows the power spectrum of heart rate 1 minute after the standup maneuver.
4. The diagram shows the resulting assessment of the Cardiovascular Health based on cardiovascular tolerance and adaptation parameters.

Users of HRS PE

- Clinical Researchers
- Stress Management Counselors
- Alternative Therapy Specialists
- Biofeedback Therapists
- Physiology Class Teachers
- Physical / Occupational / Recreational Therapists
- Cardiovascular Rehabilitation Specialists

System Requirements

- CPU Pentium 4, 1.6 GHz (or equivalent)
- 1 Gb of RAM
- Video card with at least 1024x768 and High-Color resolution
- 1 Gb of free hard disk space
- CD ROM drive
- One available USB port, version 1.1 or higher
- Windows Me/2000/XP/Vista or 7 Operating system

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