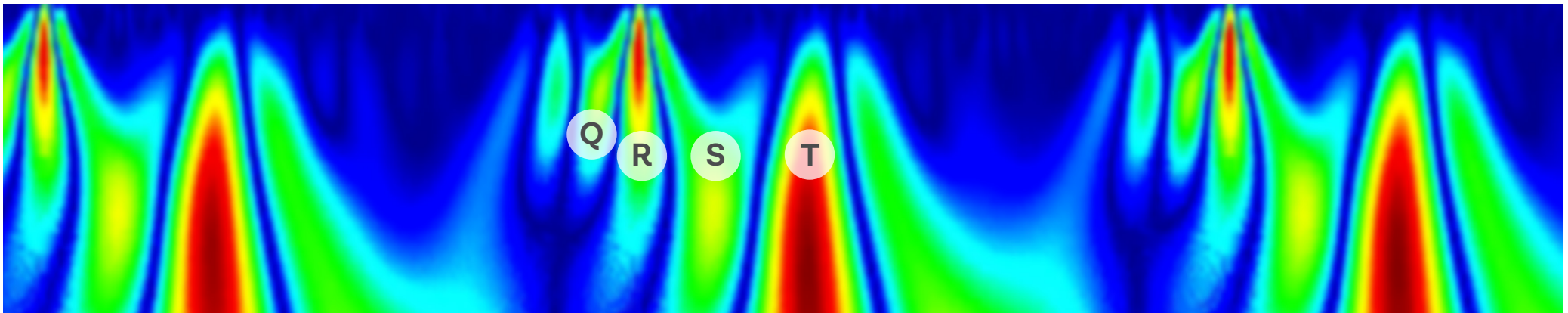




Wavelet ECG (wavECG™)

Advanced Technology for the
Detection of Cardiac Dysfunction

The **Power** of Wavelet Signal Processing plus Artificial Intelligence...



MyoVista Energy Waveform

HeartSciences' MyoVista® Wavelet ECG (*wavECG*™) Cardiac Testing Device is a new resting 12-lead electrocardiograph that uses continuous wavelet transform (CWT) signal processing to extract additional frequency information from the acquired ECG signal. This new information is a key aspect of the MyoVista *wavECG* AI-based algorithm that is designed to detect left ventricular (LV) relaxation abnormalities which are typically the earliest manifestation of left ventricular diastolic dysfunction (LVDD). Extensive research confirms that almost all forms and co-morbidities of heart disease are associated with LVDD including hypertension, diabetes, valvular disease, ischemia, and reduced systolic function.

The MyoVista *wavECG* Device is an innovative advancement for electrocardiographic testing designed to provide physicians with new information to improve patient risk-assessment related to cardiac dysfunction related to heart disease. This new *wavECG* LV Relaxation Algorithm Result information displays as either a “Highly Negative”, “Negative”,

“Borderline”, “Positive” or “Highly Positive” result for LV relaxation abnormality. In conjunction with other health-related patient information this additional *wavECG* Information assists physicians in determining whether a patient should receive further testing, evaluation and/or treatment.

In addition to new *wavECG* Information, the MyoVista Device also provides all the information and capabilities of a full-featured conventional resting 12-lead ECG within the same test and follows the same clinical AHA/IEC lead placement protocol.

The MyoVista *wavECG* Device benefits from years of research and development by HeartSciences to improve the ability of an ECG to detect heart disease related to LV relaxation abnormalities.

Not yet available in EU for sale.

...is the Future of Electrocardiography

“LVDD appears early during any cardiovascular disease and is recognized in approximately 20% to 30% of the general adult population.”¹

“LV diastolic function is impaired by all of the common pathological processes that affect LV function or produce LV hypertrophy or fibrosis, including hypertension, diabetes mellitus, ischemia, myocarditis, toxins, and infiltrative cardiomyopathies. Thus, LV diastolic performance is a sensitive indicator of cardiovascular dysfunction.”²

Clinical Value

- Non-invasive
- Assists a physician in the detection of left ventricular (LV) relaxation abnormalities
- Additional heart disease risk stratification by determining risk for LV impairment
- Overall wavECG Result provides a categorization of “Highly Negative”, “Negative”, “Borderline”, “Positive” or “Highly Positive” for LV relaxation abnormality.
- Includes conventional 12-lead ECG information and University of Glasgow Interpretive Analysis Report in the same test

Functional Value

- Intuitive touch screen
- Easy to perform
- Follows conventional AHA/IEC lead placement ECG protocols
- No change to clinical work flow
- Data storage capacity = 50,000+ records
- EMR-EHR capable
- Wi-Fi printer enabled
- PDF/XML file exportable (HL7 capable)
- High definition 1920 x 1080 display

Economic Value

- MyoVista wavECG Result and conventional ECG result are provided as independent test results
- New heart disease risk stratification information using AI-based electrocardiography
- Reimbursable use of conventional resting 12-lead ECG coding
- Quick: 20/30/60 second test with immediate results
- PDF printing eliminates need for thermal recording chart paper

¹ Partho P. Sengupta, Hemant Kulkarni and Jagat Narula. Prediction of Abnormal Myocardial Relaxation From Signal Processed Surface ECG. Journal of the American College of Cardiology. Apr 2018, 71 (15) 1650-1660; DOI: 10.1016/j.jacc.2018.02.024

² LV Diastolic Dysfunction and Prognosis, Dalane W. Kitzman, MD and William C. Little, MD AHA Circ 2012 Feb 14; 125(6): 743–745.

Not yet available in EU for sale.

Features | Functions | Design

Myocardial Frequency Information

The MyoVista *wav*ECG Device utilizes continuous wavelet transform (CWT) based signal processing to extract significant additional frequency information from the acquired ECG signal which is then analyzed using artificial intelligence. Results of the *wav*ECG LV Relaxation Algorithm provide information related to patient risk for left ventricular relaxation abnormalities associated with LVDD.

MyoVista *wav*ECG Information

MyoVista *wav*ECG Information has been developed to correlate to echocardiographic e-prime (e') and should be used in conjunction with other health-related patient information. Echo measurements of septal e' <7 cm/s or lateral e' <10 cm/s are used as the criteria for abnormality in accordance with the ASE/AECVI guidelines for the evaluation of LV diastolic function in echocardiography.

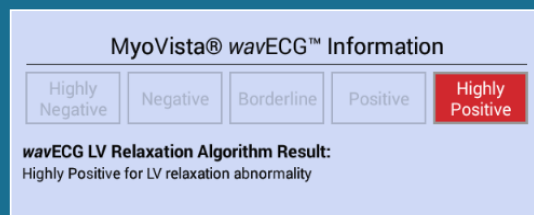
Intuitive Touch Screen Interface

The MyoVista *wav*ECG Device has a high definition (1920 x 1080) touch screen that incorporates many easy and intuitive features commonly associated with a tablet device. The MyoVista *wav*ECG Device follows conventional AHA/IEC resting 12-lead placement protocols, thereby minimizing training requirements.



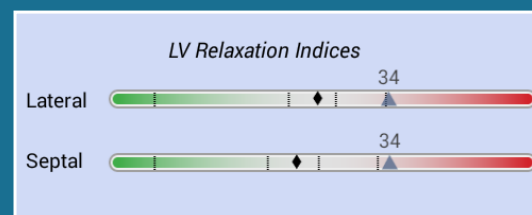
Not yet available in EU for sale.

MyoVista® wavECG™ Device assists in detecting the presence or absence of abnormal left ventricular dysfunction



MyoVista wavECG LV Relaxation Algorithm Result Statements

The MyoVista wavECG LV Relaxation Algorithm is calculated using AI-based algorithms which incorporate data from the transformed ECG signal using continuous wavelet signal processing as well as conventional ECG information. The wavECG LV Relaxation Algorithm Result is provided in both indicator and statement form and displays the result as either “Highly Negative”, “Negative”, “Borderline”, “Positive” or “Highly Positive” for LV relaxation abnormality.



MyoVista LV Relaxation Indices

The septal and lateral LV Relaxation Indices are components of the wavECG LV Relaxation Algorithm and are provided as secondary, supplemental information on septal e' abnormality or lateral e' abnormality individually. For each index, the further to the right (red) the number appears the greater the probability of either lateral or septal abnormal e' and the further to the left (green) the number appears the lower the probability of either lateral or septal abnormal e'.



ECG Trace and Glasgow® Interpretive Analysis

Provides conventional ECG trace information as well as the University of Glasgow 12-lead ECG Interpretive Analysis Algorithm and is regarded as one of the leading ECG analysis algorithms.

The MyoVista wavECG Device provides conventional ECG traces, measures and analysis independently of wavECG Information.

Not yet available in EU for sale.



www.heartsciences.com
info@heartsciences.com

550 Reserve Street, Suite 360
 Southlake, TX 76092 USA
 Tel: (+1) 682-237-7781
 Fax: (+1) 817-796-2075

©2021 TM Trademark of HeartSciences. Reg. US Pat. & TM Off.
 All rights reserved. wavECG and wavEKG are trademarks
 of HeartSciences. All rights reserved.

MV-BROCH-001 Rev. C



HeartSciences seeks to bridge today's "diagnostic gap" in cardiac care by providing effective front-line solutions that assist in the detection of heart disease in at-risk patients. HeartSciences has invested years of R&D focused on advancing the field of electrocardiography through the use of technology to develop new algorithms focused on detecting cardiac conditions not previously available in ECG devices. HeartSciences' MyoVista[®] Wavelet ECG (*wavECG*[™]) Cardiac Testing Device uses an advanced form of signal processing called continuous wavelet transform (CWT) to extract valuable frequency information from the acquired signal and then analyzes this information using artificial intelligence to provide new information related to a patient's risk for left ventricular abnormalities. MyoVista *wavECG* Technology focuses on the recent understanding that most forms of heart disease are associated with left ventricular (LV) relaxation abnormalities and diastolic dysfunction.

Not yet available in EU for sale.