

The HeartVue System is an advanced technology for early, non-invasive testing of heart disease (CHD) with 95% sensitivity and 90% specificity. The heart monitoring system provides high quality 3D visualization and diagnosis of the heart using advanced signal analysis including information from ECG fluctuations that are usually ignored as "noise" by regular ECG devices. Depending on the pathology, the device sensitivity surpasses standard ECG analysers by 7 - 50 times.

The medical device uses only 4 limb wires from the patient's wrists and ankles. Patients are easily tested sitting up, fully clothed. It incorporates patented, proprietary software that converts the electric conductivity of the cardiac tissue into a 3-dimensional, colour-coded visual portrait. The device allows testers to observe the condition of the heart muscle as well as the intensity of the heart stress load.

The HeartVue System provides a better level of diagnosis with its improved sensitivity levels detecting early warning signs that would normally be invisible with standard ECG devices. It depicts disease or stress levels as a 3D image supplementing the line drawing electrocardiogram. The system evaluates the stability of current heart conditions. It is highly portable and provides a rapid analysis in 30 or 60 seconds. The system will dramatically cut the costs associated with the detection of ischemic heart disease.

Early, non-invasive screening with 95% sensitivity and 90% specificity

System Portability, accuracy of analysis and ease of use cut the costs associated with ischemic heart disease detection. Stress tests can be avoided through enhanced resting diagnosis

Enables an improvement of disease-trend monitoring during medical treatment due to new visualization

Enables earlier detection of heart abnormalities, detects more cases of diseases and provides better diagnosis details than conventional ECG machines

The device allows rapid recognition and estimation of the heart's condition by creating a unique 3D colour visualization of the heart's electrical field dynamics

The system evaluates the stability of current heart conditions

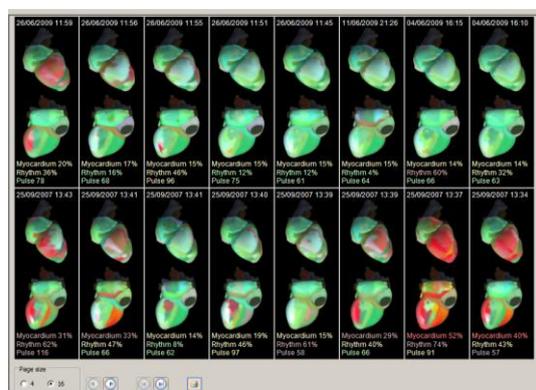
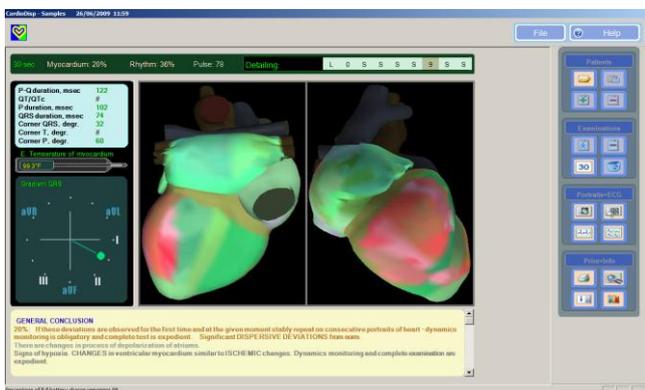
Improved sensitivity levels detect early warning signs that would be invisible with standard ECG devices. The device can detect small metabolic deviations preceding the dangerous ischemic damages of myocardium.

The device differentiates arrhythmias and stresses more effectively

Depending on the pathology, the device sensitivity surpasses standard ECG analysers by 7 - 50 times.

The non-invasive system will provide more efficient clinical trials of new medications and treatment procedure results

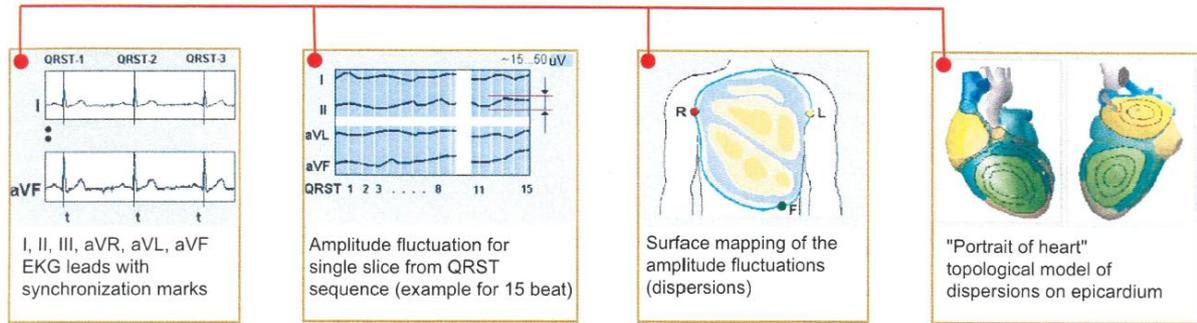
Ease of use makes device practical for non-clinical operators



The system will prove to be an invaluable testing device for cardiologists, general practitioners, physicians, clinics, hospitals, the fitness industry, sports teams and emergency facilities.

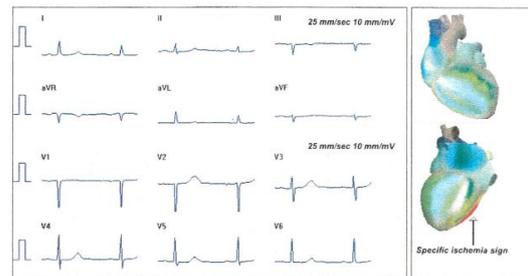
After several successful clinical trials in the United States, the Company is moving ahead in Europe, where it has received a CE Mark for sales to the EU Market.

### Method

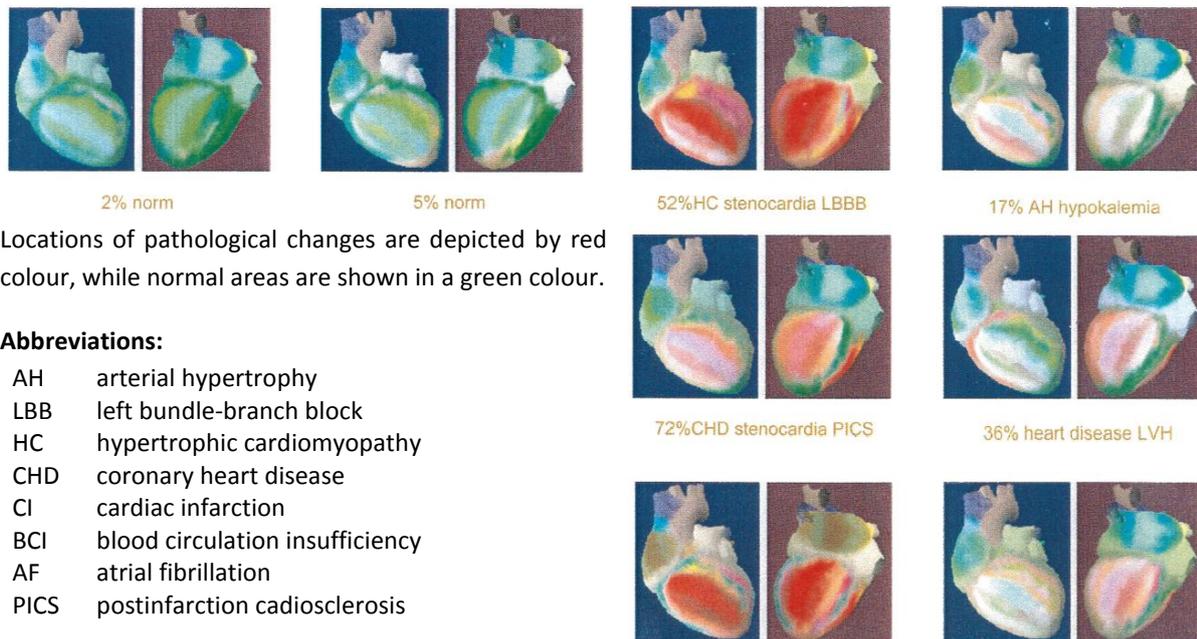


### Earlier Ischemia detection

New level of sensitivity, unreachable with conventional ECG devices, is illustrated on an example of ischemia. Here the original ECG signals from 12 standard leads were classified as "normal". However, HeartVue 6S – analysing only the signals from 4 limb-leads – revealed the ischemic changes of myocardium and displayed the heart portrait with locations of the ischemic zone.



### Example "Heart Portraits" for different Pathologies

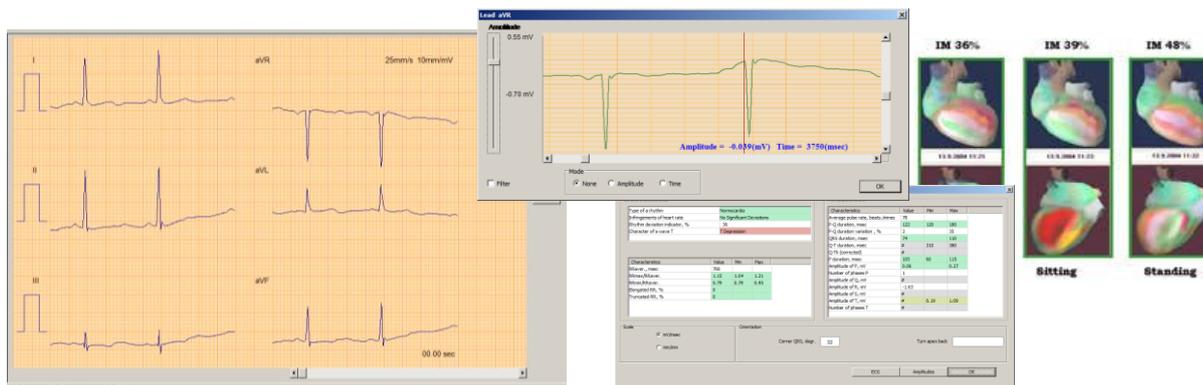


Locations of pathological changes are depicted by red colour, while normal areas are shown in a green colour.

#### Abbreviations:

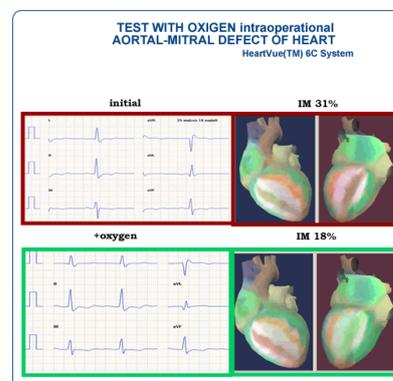
- AH arterial hypertrophy
- LBB left bundle-branch block
- HC hypertrophic cardiomyopathy
- CHD coronary heart disease
- CI cardiac infarction
- BCI blood circulation insufficiency
- AF atrial fibrillation
- PICS postinfarction cadiosclerosis

The Heart Portrait results are stored in a patient database allowing a time series visual comparison of a patient history for evaluation of trend monitoring.



## HEARTVUE HISTORY

- 1996** Commencement of a research and development program of the HeartVue Project in Moscow.
- 2001** German Patent granted for the earliest version of the medical device named Cardiovisor 6S System.
- 2003** Approval and certification of the Cardiovisor System in Russia.
- 2003** Successful Clinical Studies of the Cardiovisor System by the Russian Cardiology Research & Production Facility at the Health Ministry of the Russian Federation.
- 2003** Patent Pending Approval granted in the United States.
- 2005** Successful Pilot Study evaluating HeartVue System by a major New York institution, Maimonide Hospital
- 2006** CE Mark granted for approval of sale of the HeartVue System in the European Common Market.
- 2007** KLM Airlines evaluates ongoing HeartVue cardiovascular testing program for its 14,000 employees.
- 2007** Harvard University clinical study of the HeartVue System concluding further investigation is warranted
- 2008** FDA Approval application on strength of Harvard results
- 2008** Los Angeles, Ca. Initiated clinical trials
- 2008** London, UK Initiated Private practice trials
- 2009** Final FDA Approval initiated
- 2010** Approval Due Q1



## CONTACT US

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