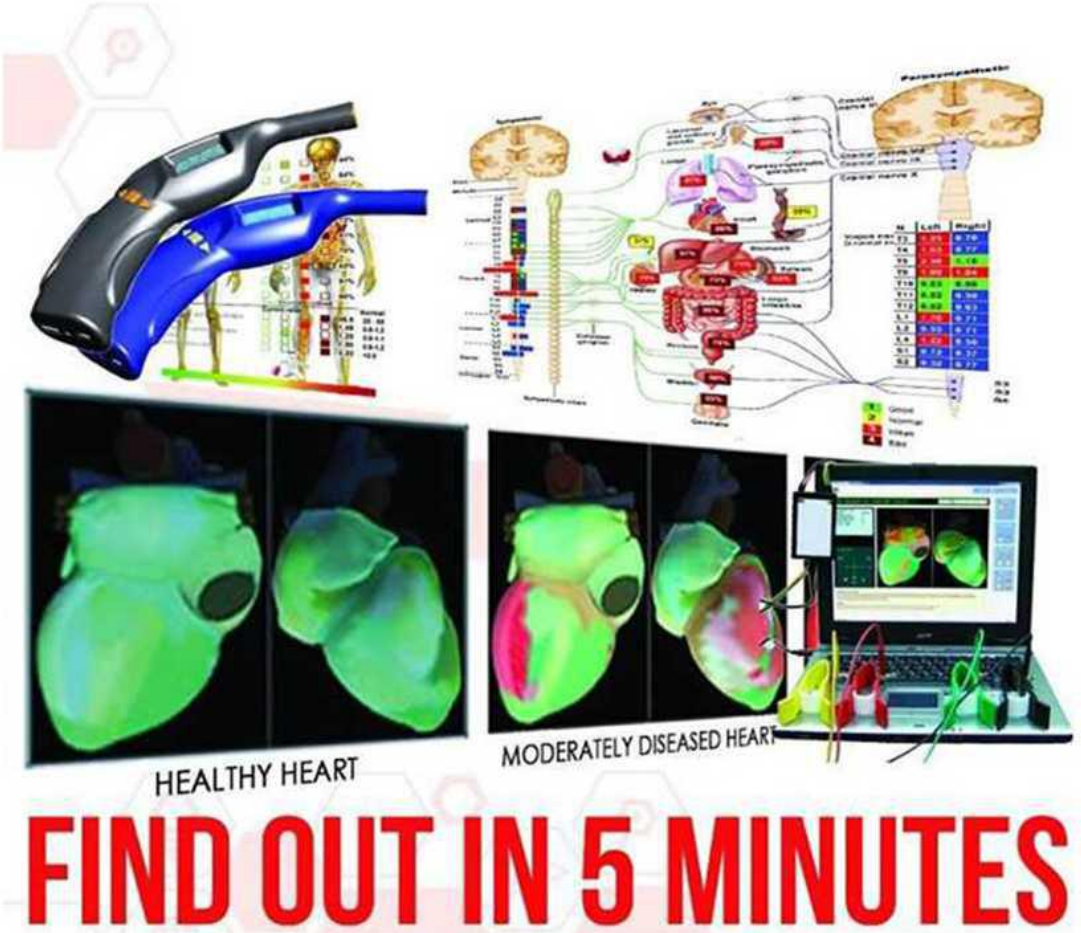
Kardi®

Automated Heart Analysis

www.alexoratech.com

DO YOU KNOW HOW HEALTHY YOU ARE?



Yes, 5 minutes or less!

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The Kardi® System

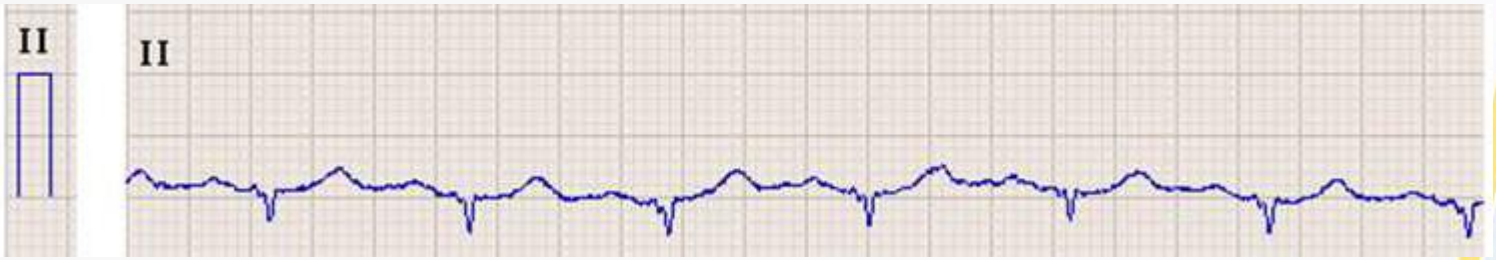
- Kardi® is a revolutionizing non-invasive diagnostic tool used for testing ischaemic heart disease

- It's technology generates high quality 3D visuals projected from traditional ECG plus Dispersion Mapping.

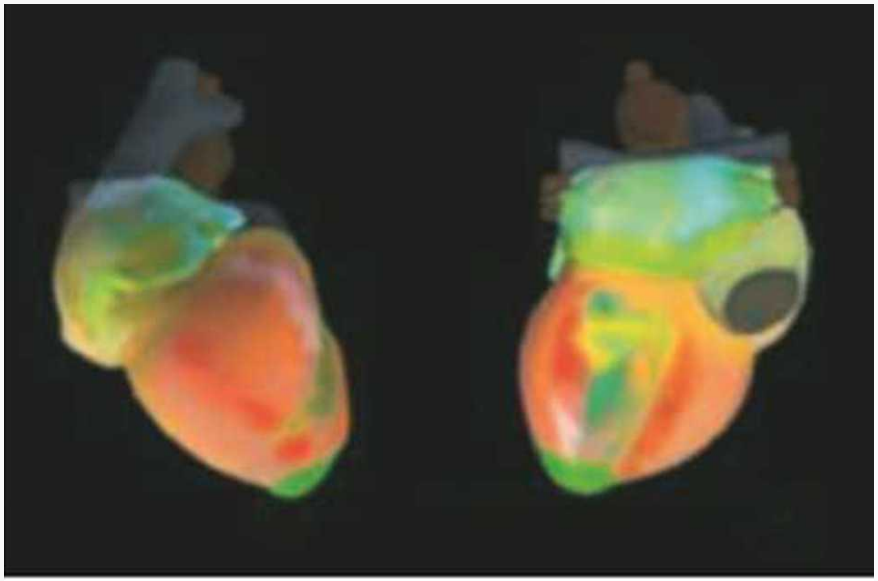
- The actual test only lasts 30 seconds.

How does it work?

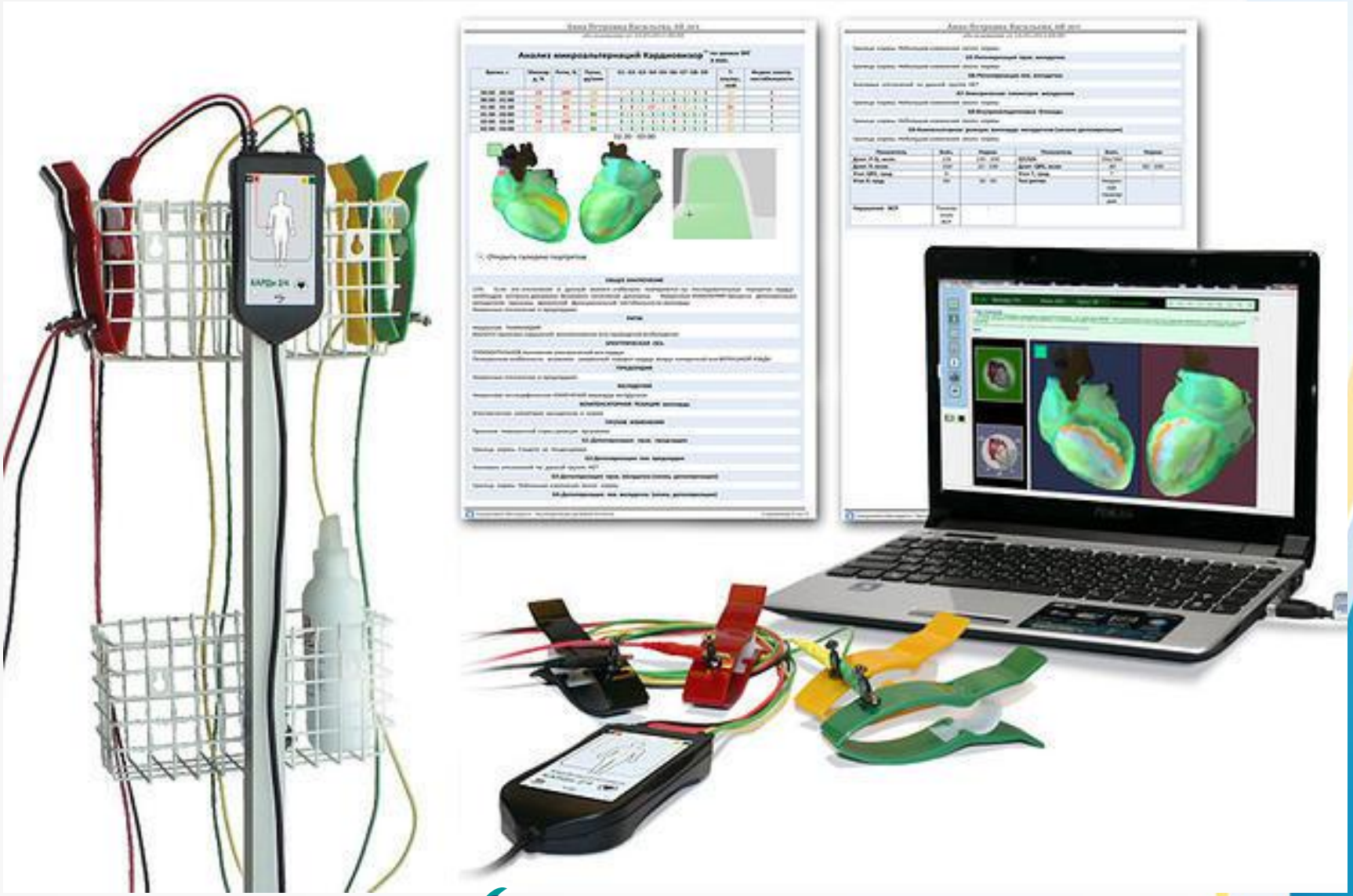
- By analyzing low amplitude oscillations of conventional ECG signals, we can generate a stable signal of ECG micro fluctuations, by reflecting not just T-wave alternans (noise and artifact) but those of the QRS and R-wave complex as well



- The 3-dimensional image projected by the system allows for physicians to observe the condition of the heart muscle and the intensity of ischemic heart disease.

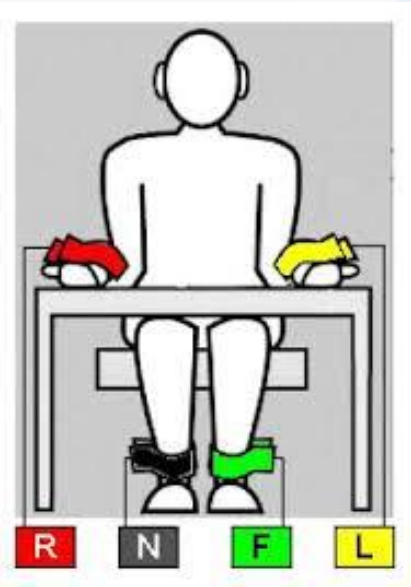


The Composition



General Method of Operation

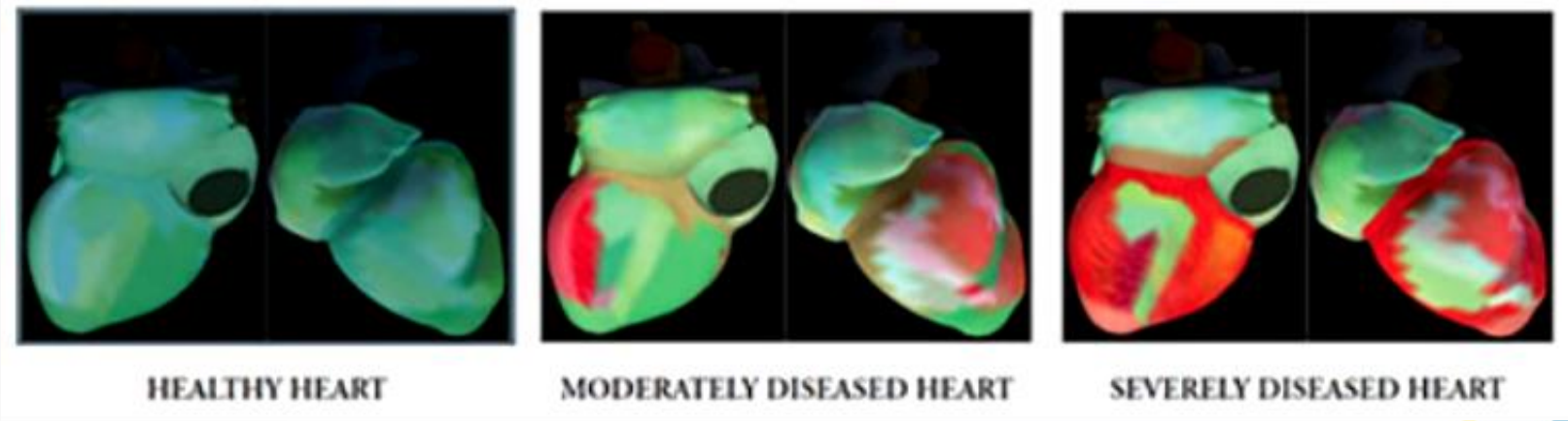
- Four electrodes are applied in accordance to standard ECG arrangement of ECG limb leads
- ECG data acquisitioned in 30 seconds



- An image of the heart is formed on screen together with quantitative and qualitative analysis of cardiac electrical activity.

Results

- Kardi® results are shown in the form of a numeric dispersive characteristics range and a disperson mapping
- The dispersive mapping is a colour-coded image of the heart in which green represented healthy and red represented pathological changes



Results

- Dispersive characteristics are expressed by 9 analyzed groups of deviations.
- In these groups, the characteristics were analyzed reflecting electrophysiological abnormalities in the:
  - **depolarization** (generation of an electrical impulse that causes an action potential or a short lasting contraction of the heart muscles) and;
  - **repolarization** (heart muscle returns to its original state) of the myocardium.

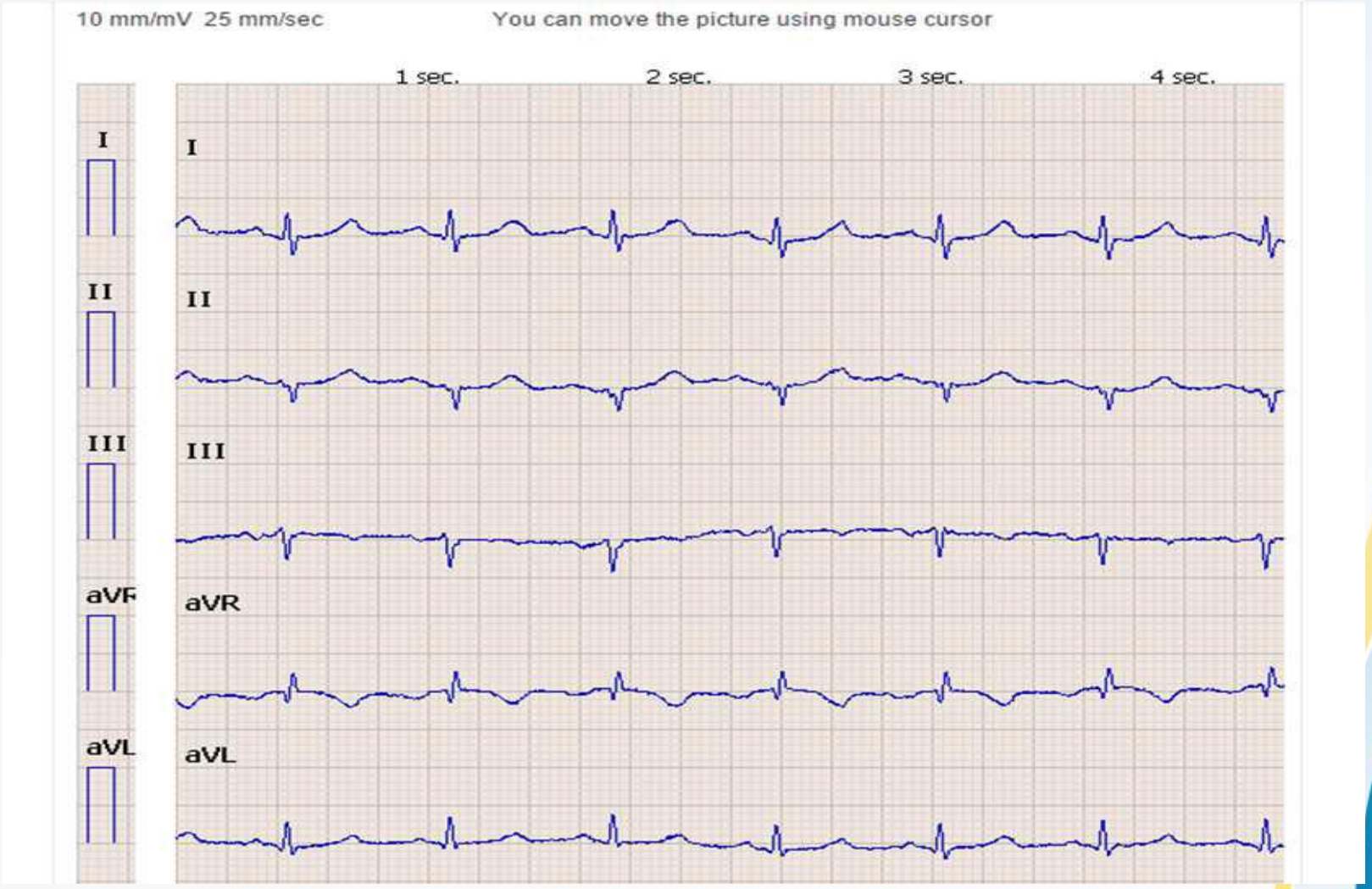
Dispersive Indices (as seen online)

Detailing code 0-L-S-0-1-S-S-0-S	
G1-Depolarization of right atrium	NO significant deviations in this group.
G2-Depolarization of left atrium	Norm border. You should observe the tendencies.
G3-Depolarization of right ventricle	Norm border. Small changes near the norm border.
G4-Depolarization of left ventricle	NO significant deviations in this group.
G5-Repolarization of right ventricle	Individual features of myocardium. The most similar deviation will be the following: Pronounced repolarization changes. If changes in G3-G4 are simultaneously observed, it is myocardium hypoxia.
G6-Repolarization of left ventricle	Norm border. Small changes near the norm border.
G7-Electrical symmetry of ventricles	Norm border. Small changes near the norm border.
G8-Intraventricular blocking	NO significant deviations in this group.
G9-Compensatory reaction of ventricular myocardium	Norm border. Small changes near the norm border.

Dispersive Indices (as printed/e-mailed)

Dispersion index bound				
Dispersion index	Current value	Norm	Deviation	Evident deviation
Heart Stress Index, %	15	< 15	15 - 20	> 20
Heart Rhythm Index, %	32	< 50	50 - 79	> 79
T-alternation, mkV	15	< 12	12 - 20	> 20
Index of electrical instability	1	1	2 or 4	3 or 5
Detailing code				
(0 – norm, S-small deviation, L-norm border/deviation, greater then 0 - evident deviation)				
G1. Depolarization of right atrium	0	0, S, L, 1 - 5	6 - 11	> 11
G2. Depolarization of left atrium	L	0, S, L, 1 - 3	4 - 6	> 6
G3. Depolarization of right ventricle	S	0, S, L	1 - 6	> 6
G4. Depolarization of left ventricle	0	0, S, L	1 - 6	> 6
G5. Repolarization of right ventricle	1	0, S, L	1	> 1
G6. Repolarization of left ventricle	S	0, S, L	1 - 6	> 6
G7. Electrical symmetry of ventricles	S	0, S, L	1 - 3	> 3
G8. Intraventricular blocking	0	0, S, L	-	> 0
G9. Compensatory reaction of ventricles	S	0, S, L, 1 - 3	4 - 6	> 6

ECG Tracing


10 mm/mV 25 mm/sec
You can move the picture using mouse cursor
1 sec.
2 sec.
3 sec.
4 sec.
I
II
III
aVR
aVL

- The system therefore reacts to changes that exist or operate, below the threshold of normal ECG, that violate the synchrony of ventricular electrical excitation, as well as microscopic changes in the ionic balance of myocytes (muscle cell or muscle fiber) and other changes that are due to small quantities that do not appear in the morphology of the traditional ECG signals.

Why say “YES” to **Kardi®**?

- **Feature:** ECG dispersion mapping by capturing low amplitude waveforms → 3D portrait of the heart → highlights impaired areas of the myocardium

Benefit: Real time assessment for ischemic heart disease → quicker diadnosis → quicker prescription of treatment

- **Feature:** Uses ECG wave alternans (noise) for information

  Benefit: Ability to use information that is regarded as “insignificant or unusable” by the traditional ECG systems, giving more information to doctors about heart health

- **Feature:** Uses four limb lead wires with patients sitting in an upright position and fully clothed

- **Benefit:** More comfortability during the procedure without undressing or limited to lying down

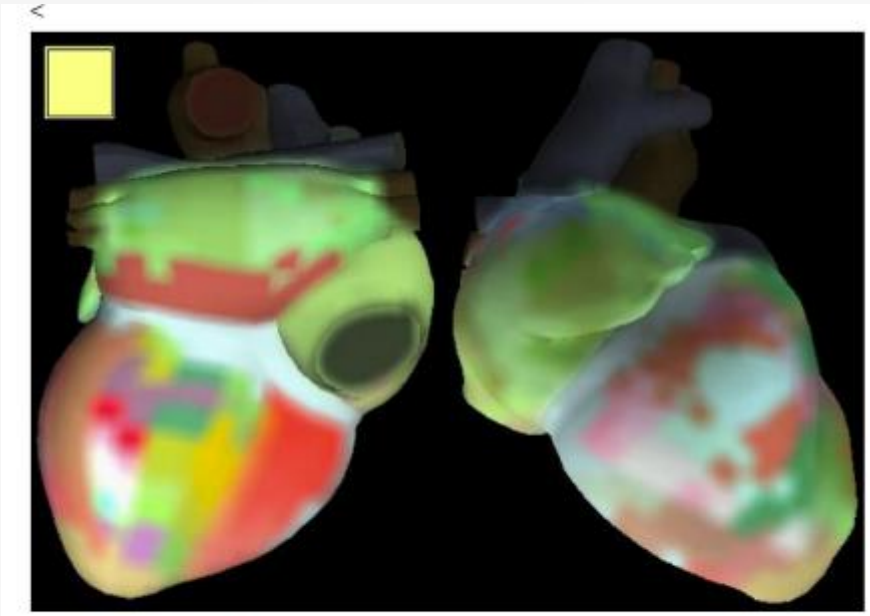
- **Feature:** Specificity and sensitivity to ischemic heart disease increased by 80%

- **Benefit:** Detection of extremely small deviations during cardiac cycles which are invisible to regular ECG systems

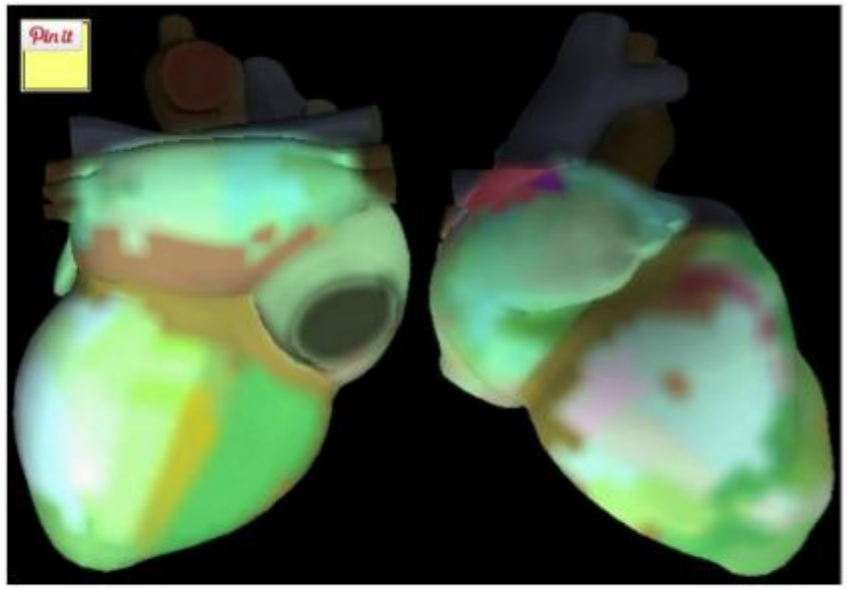
- **Feature:** Color-coded 3D portrait of the heart

- **Benefit:** Reduces the need for 2D echocardiography or other visualization tests cutting expenses used for diagnostics alone

- Used for assessing if modes of treatment prescribed work



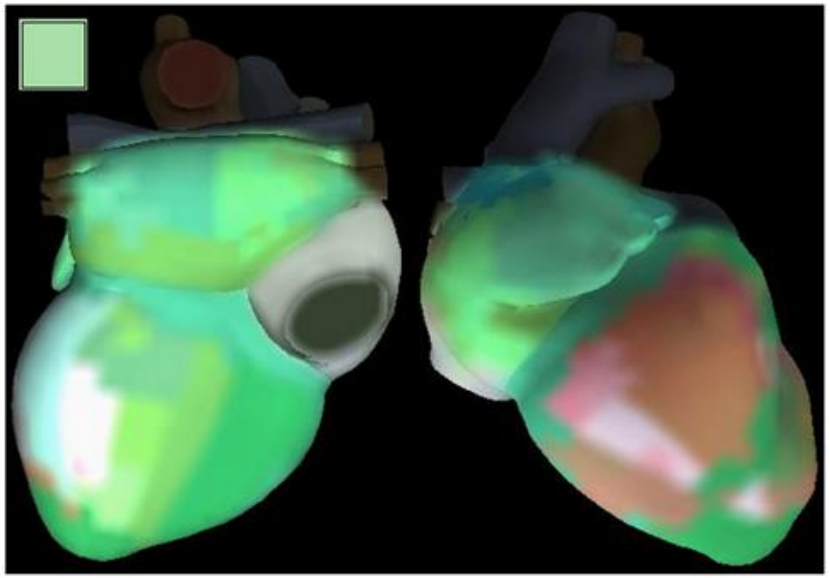
70 Year Old Woman from Florida. Initial Scan.



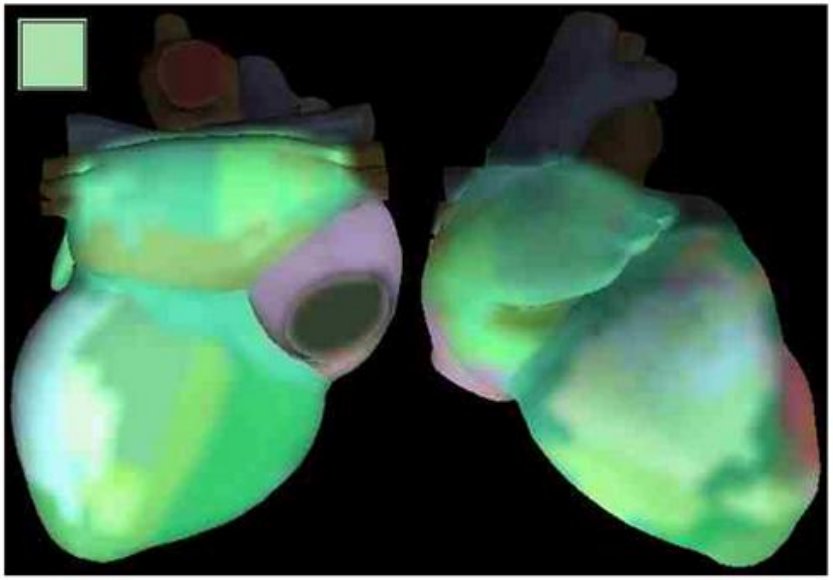
Second Scan Only 5 Minutes After Taking 6oz. Of Regeneblend.

- Visuals help patients to be more conscious of lifestyle choices

Heart Stress Index	Heart Rhythm Index	Pulse	Detailing code
15%	12%	80 tick/min	0-L-S-0-S-S-S-S-S

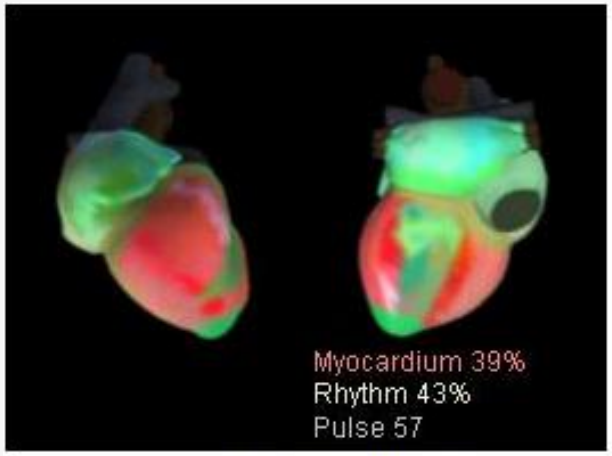


Heart Stress Index	Heart Rhythm Index	Pulse	Detailing code
15%	38%	92 tick/min	0-L-S-0-1-S-0-S-S

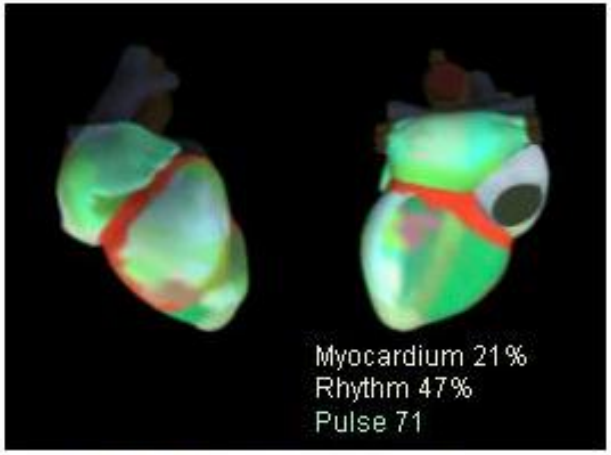


before and 1 day after taking Max One

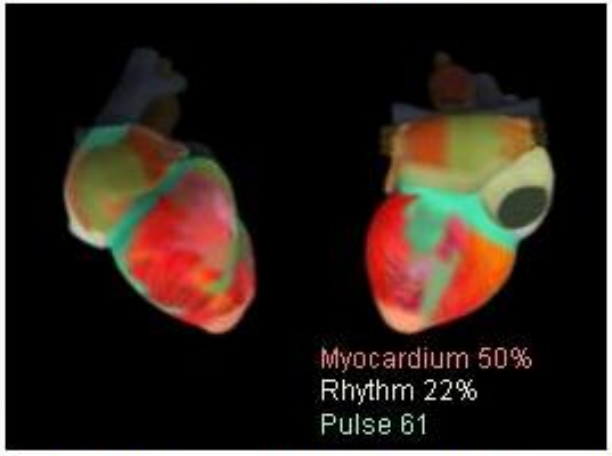
- easy detection of patterns of heart anomalies



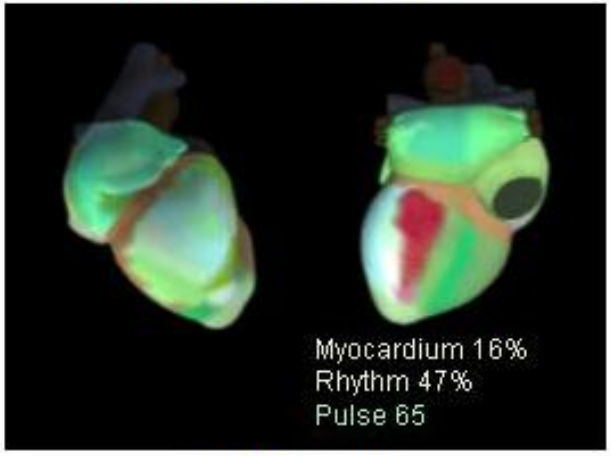
Ischemia, OMICS



Valvular heart disease, LVH



IHD, OMICS, Atrial fibrillation, AH, Recurent MI



AH, Mild of LVH

For an easier, faster, accurate heart diagnosis, Kardi® paves the way for a more effective practice for doctors and more proactive health management of patients.