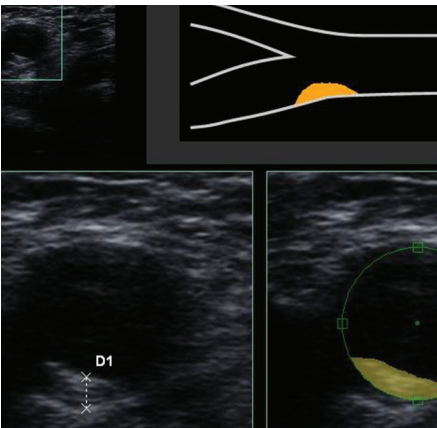
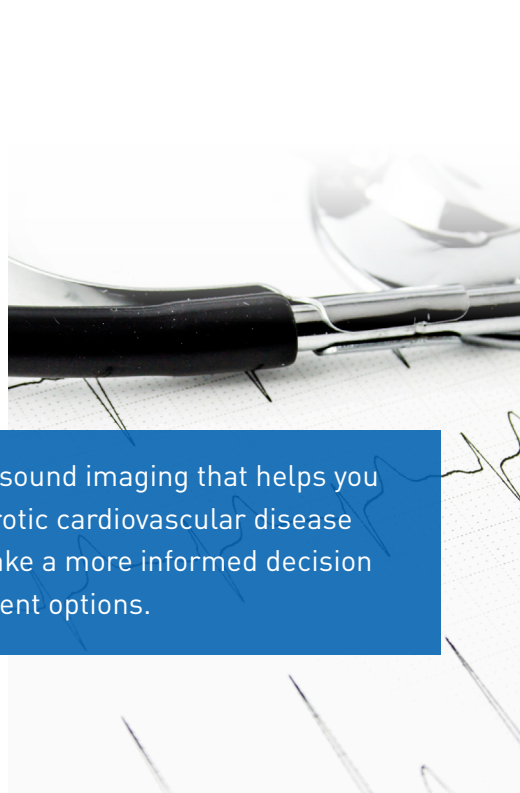


CardioHealth Station



FDA cleared, in-office ultrasound imaging that helps you directly identify atherosclerotic cardiovascular disease (ASCVD) allowing you to make a more informed decision about your patients' treatment options.



Healthcare
CardioHealth

Discovery powered by
precision.

The Physician's Challenge

Assessment of cardiovascular risk in asymptomatic patients

Cardiovascular disease is one of the leading causes of death globally. To assess risk, doctors typically review traditional risk factors, such as total cholesterol, blood pressure, smoking history, age, gender, lipid profile (HDL/LDL levels), and family history. However, these conventional tests can be poor predictors of future atherothrombotic events. Relying on these factors may result in misclassification of risk. In a **major study of 136,905 patients hospitalized with coronary artery disease, only 23% had high LDL levels*** (above 130 mg/dl) and would be identified by traditional risk factors. **Yet in a large outcome study of 10,000 asymptomatic subjects with a 10 year follow-up (mean age = 53), ultrasound identified 98.6% of future atherothrombotic events.****

*Sachdeva et al. AHJ, Vol 157, 111-117, Jan 2009

**Belcaro G, et al. Atherosclerosis 2001; 156: 379-387

The Panasonic Solution: Find a Plaque, Treat It.

We have engineered a product that not only improves your ability to see the underlying disease, but also fits seamlessly into your treatment regimen. Innovative ultrasound imaging technology allows for direct identification of atherosclerotic cardiovascular disease (ASCVD). By combining traditional risk factors with imaging, physicians are able to gather a more comprehensive understanding of their patients' cardiovascular health.

The **CardioHealth Station** in the hands of a trained professional is the perfect in-office tool. Driven by advanced hardware, it automates many of the steps which a sonographer would usually need to understand and perform, making it easy to start using right away and on your own schedule.



Easy to Integrate into Your Practice to Help You Start Making Informed Decisions

Research Studies

Carotid Intima-Media Thickness (CIMT) and Plaque Assessment by Trained Medical Residents: Validation and Preliminary Testing of a Training Protocol.

A recent study published by physicians out of Mayo Clinic and the University of Southern California assessed how easy it was to train medical residents to use ultrasound imaging to identify plaque and measure CIMT. The **conclusion was that it was easy to rapidly train medical residents, who had no prior ultrasound training**, to identify ASCVD with an accuracy comparable to experts.*

*Aldridge et al., J Am Soc Echocardiogr. Sept 2013. pii:S0894-7317(13)00635-4

The above articles are not shown as an endorsement of the CardioHealth Station, but rather as a highlight of publicly available scientific data, which may be referred to by the medical professional.

Rapid Screening for Subclinical Atherosclerosis by Carotid Ultrasound Examination. The HAPPY (Heart Attack Prevention Program for You) Substudy.

A major study done in India, under the guidance of leading physicians from Mt. Sinai, sought to determine the feasibility of performing ultrasound imaging in a rural young population with few to no risk factors. The results proved that not only was rapid community screening of subclinical atherosclerosis possible, but also **useful for identifying the high prevalence of atherosclerotic cardiovascular disease (ASCVD) where traditional risk factors were not available.***

*Singh, Fuster, Narula et al., Global Heart. Vol. 8, No. 2, 83-89, June 2013

CardioHealth Station

Find a Plaque, Treat It.

The [CardioHealth Station](#) brings efficiency, innovation, and reliability to your medical practice. As a pioneer in its field, it offers improvements in workflow without disrupting your current routine, allowing you to use it on your own schedule.

The tool you always wished you had is finally here to help you make more informed decisions.



Efficiency

A powerful **in-office solution** allowing you to image patients and find the results in real-time, on your own schedule. Automation and proper training gives you a powerful tool for plaque detection.*

Reliability

Automation delivered with proprietary technology gives you a **reproducible and reliable solution** for your practice. Only product in the industry to be **FDA cleared** for its automated acquisition of IMT measurements of the peripheral vessels.**

Innovation

Provides **real-time arterial plaque imaging** allowing you to make more informed decisions while also creating a unique way to increase patient adherence to therapy through proper counseling.

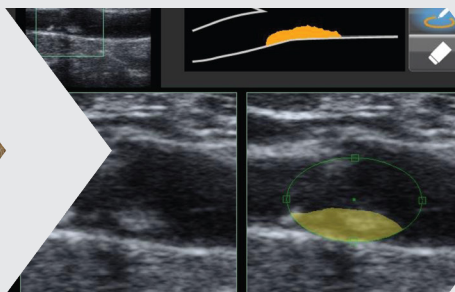
*Aldridge et al., J Am Soc Echocardiogr. 2013 Sep 16.
pii:S0894-7317(13)00635-4

**Accurate as of March 2011

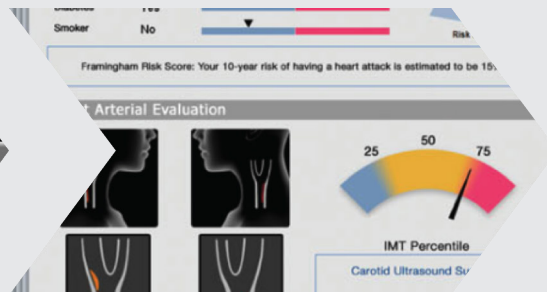
The Whole Test Can Take Just 5 Minutes...



1) Enter information & start ultrasound scan.



2) Assess for plaque and measure IMT through automation.

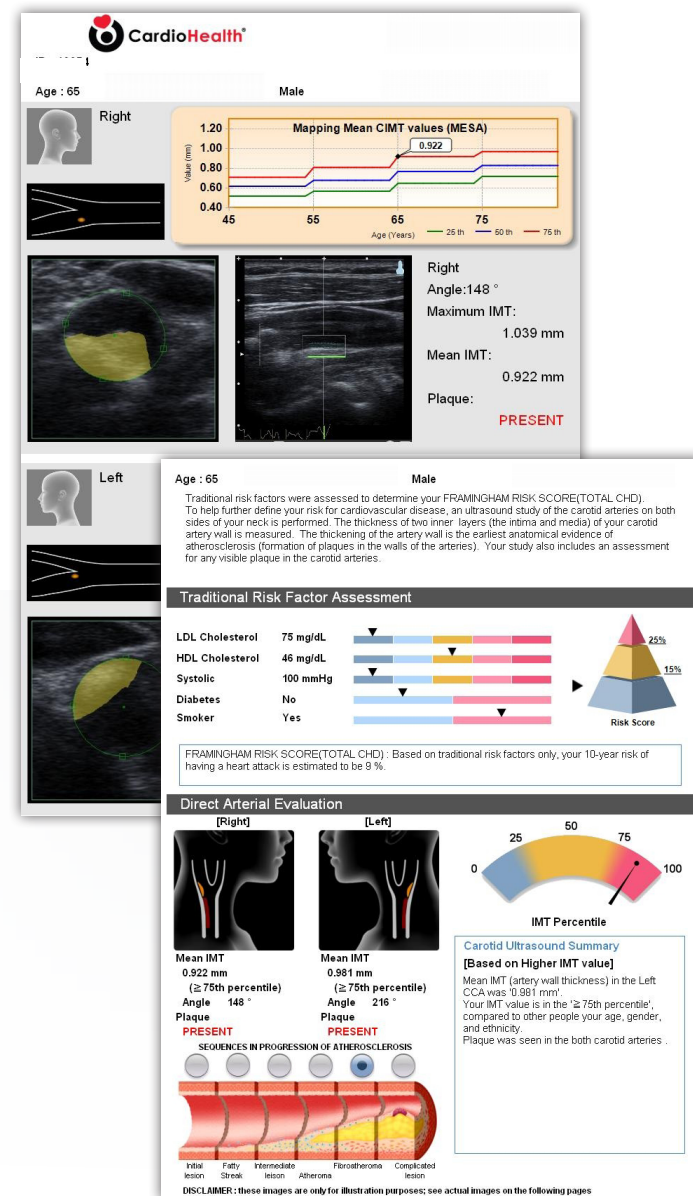


3) Generate comprehensive report and recommend next steps.

Instant Results

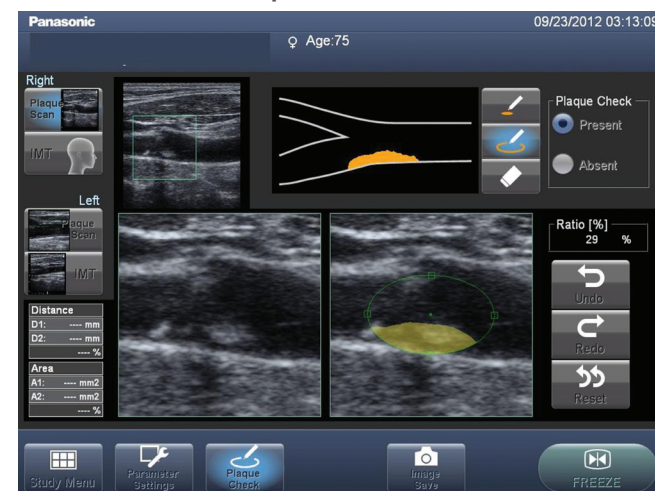
In most cases, the entire test takes no longer than five minutes allowing you to create a comprehensive cardiovascular risk assessment very quickly. A detailed report is generated based on traditional risk factor scores (FRAMINGHAM, SCORE or PROCAM) and the results of the ultrasound examination (plaque and IMT) are plotted against your choice of a major study, whether it be ARIC, MESA, or CAPS. Developed in close cooperation with key opinion leaders in preventive cardiology and subclinical atherosclerosis imaging, the report is optimized for you and your patients. The combination of schematic and actual ultrasound images to depict wall thickness and arterial plaque may serve as a clever solution to increasing patient adherence to treatment.

Comprehensive Report Generated with Images

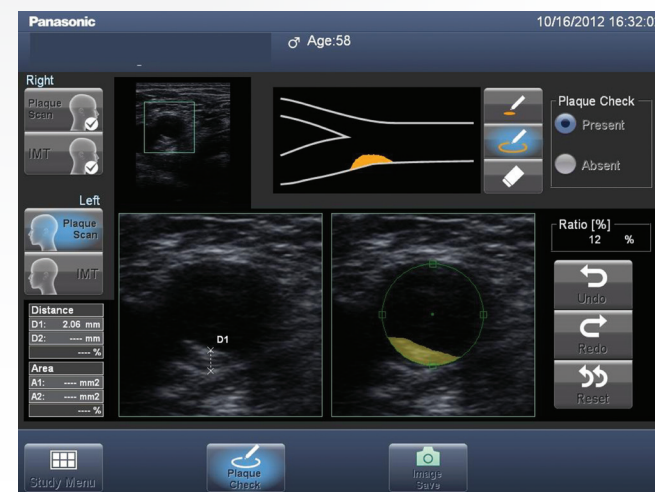


**Metric report also available

Carotid Plaque



Femoral Plaque



New Treatment Guidelines



Is Testing for Atherosclerotic Disease Recommended?

Yes! Detecting early stage Atherosclerosis by finding focal lesions or an abnormal IMT is more highly recommended by national societies than several other well-known tests.

TEST	USA*	Europe**
Plaque/IMT	Class IIA	Class IIA (Strong)
CAC	Class IIA	Class IIA (Weak)
LP(a)	Class III	Class IIA
HEMOGLOBIN A1C	Class IIB	--
RESTING ECG	Class IIB	--
LP-PLA2	Class IIB	Class IIB
ARTERIAL STIFFNESS	Class III	--
ENDOTHELIAL FUNCTION	Class III	--

*2010 ACC / AHA Guidelines | **2012 ESC Guidelines
Carotid intima-media thickness measurement is a quantitative measurement of atherosclerosis

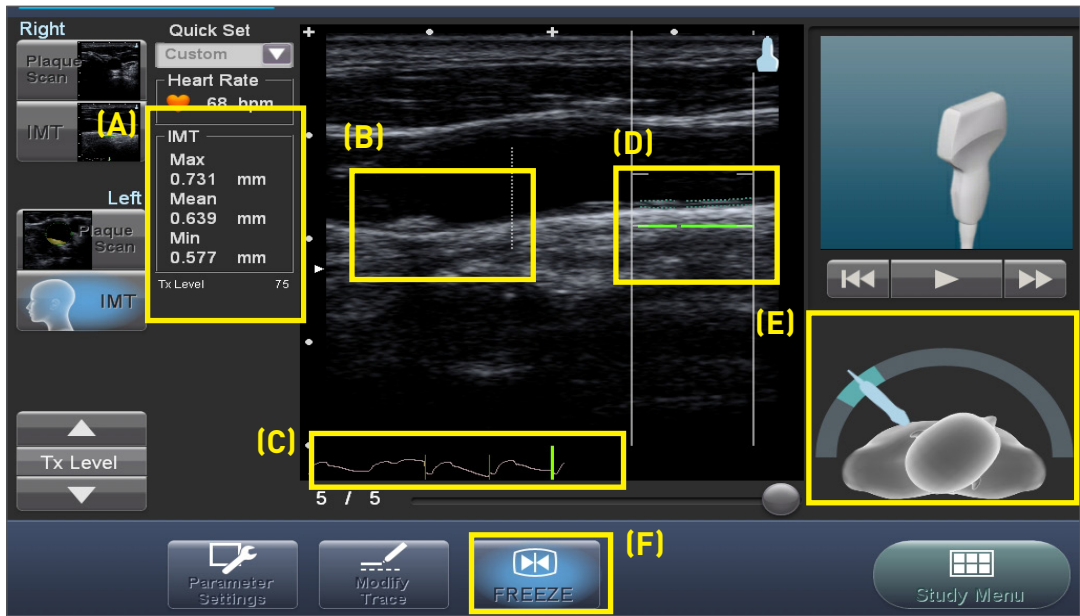


What do the Treatment Guidelines Say?

There are two major treatment guidelines to turn to:

- **2012 ESC Guidelines - Treatment Recommendation**
In the prevention of non-haemorrhagic stroke, treatment with statins must be started in all patients with established atherosclerotic disease and in patients at high risk for developing cardiovascular disease.
- **2002 NCEP ATP III**
“...Persons with clinical forms of non-coronary atherosclerosis should have the same LDL-cholesterol goal (<100 mg/dL) as those for persons with established coronary heart disease and should be managed similarly...”

Key Automatic Features



(A) RESULT OF IMT MEASUREMENT	Calculated from automation based on the radio frequency data received by the ultrasound probe. Measurement accuracy not dependent on image quality and resolution.	(D) AUTO IMT	Determines the intima-media thickness through the collection of raw data and is not dependent on the image resolution.
(B) AUTO ROI	Determines depth of carotid and region of interest to vessel far wall automatically.	(E) ANGLE DISPLAY	Angle is displayed and recorded along with the IMT measurement.
(C) AUTO TRIGGER	Performs a real-time analysis of the movements of carotid wall from change in vessel diameter and automatically detects cardiac end-diastole when IMT is the thickest.	(F) AUTO FREEZE	Freezes automatically (measurement completed) when reliability of IMT measurement reaches high quality, and trigger occurs.

CardioHealth Station Technical Specifications

DISPLAY	LCD Monitor with touch panel (Size:15 inch)	SIZE	406(W)x131(D)x394(H) Excludes stand and holder
WEIGHT	13 kg (includes transducer, desk stand, and holder)	IMAGE PARAMETER SETTINGS	Auto Freeze Condition (Difficult / Normal / Easy)
MODES OF OPERATION	B Mode / BIMT Mode / CFD / PWD (Realtime / Freeze)	MEMORY FOR IMAGING	-Multi-angle IMT measurement mode -Plaque search mode (B-mode/CFD/PWD)
POWER	100 V to 240 V	MEMORY FOR IMAGING	-Auto IMT measurement -Modify trace
ULTRASOUND IMAGE VIEW	-Direction rotates 90°C or totation (Vertical/Horizontal) -Depth 2 cm-5 cm -Transducer Angle Recording	BEAM FOCUS	Full digital, transmit focus step 1 (single), dynamic receive focusing
TRANSDUCER	-Linear array -Center frequency (8.9 MHz) -Cable length (1.5 m)	REPORTS	-CardioHealth report -DICOM format export -Network export capability -Optional USB printer
OPERATION ENVIRONMENT (INCLUDES TRANSDUCER)	Ambient temperature: 10°C to 35°C Relative humidity: 35% to 80% (no condensation)	DATA STORAGE	-Ultrasound images -Patient information -Angle information -Measurement information -Image parameter setting



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