

Virtual Cardiac Care with Motion Sensor Technology

ADVANCING EARLIER DETECTION OF
Atrial Fibrillation | Heart Failure | Coronary Artery Disease



A New Approach to Virtual Care Models

CardioSignal™ will change the diagnostic landscape of heart disease by offering a low-cost, reliable, and scalable digital health device for earlier detection of the deadliest and costliest disease in the world.

The Lifesaving 60 Seconds

1. Lie down and open the application on your phone.
2. Place the phone on your chest and press Start.
3. After 1 minute, check the result in the application.

01 Healthcare Professionals

Telemedicine solutions and remote patient monitoring.

02 Biopharma & Industry

Studies, trials, awareness, and early detection programs. Technology integrations to other devices.

03 Health Plans

Implementing new cardiovascular care and prevention models.



1 Measuring the Heart Directly

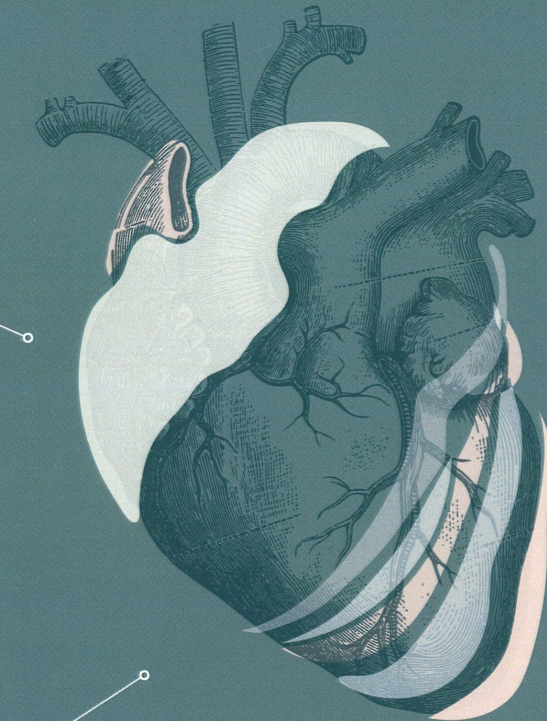
WHY IT WORKS

Unique technology

Measuring heart motion is well established in cardiology. We developed a new method called *gyrocardiography* to detect heart motion with high accuracy.

Two motion sensors

The technology utilizes two sensitive motion sensors — a gyroscope and an accelerometer — which are found in most modern smartphones.



Measuring heart motion

The majority of human heart diseases affect cardiac motion. Measuring the motion of the heart can be used to detect signs of several types of heart disease.

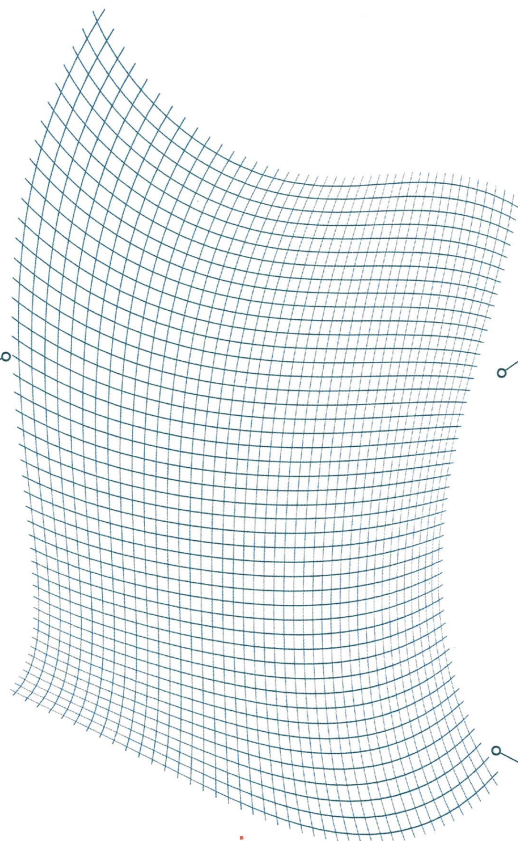
>50%
OF HEART MOTION
IS ROTATIONAL

2 Powerful Algorithm

HOW IT WORKS

6-channel analysis

A gyroscope and accelerometer can detect the axis and angular orientation of heart motion, and subsequently, they can produce a signal for a 6-channel analysis. We combined this technological capability with an algorithm and an easy-to-use heart health application.



A high-quality signal

Clinical studies with a wide range of body characteristics – BMI and gender do not affect the signal interpretation.

Clinically validated

Our algorithm has been clinically validated and developed for over a decade. As a result, a reliable heart health analysis is possible in just one minute using a smartphone as a measuring device.

20+

PEER-REVIEWED ARTICLES ON THE GYROCARDIOGRAPHY METHOD*

**In journals such as Circulation, Scientific Reports, and IEEE*

3 Unforeseen Capability

WHAT IT ENABLES

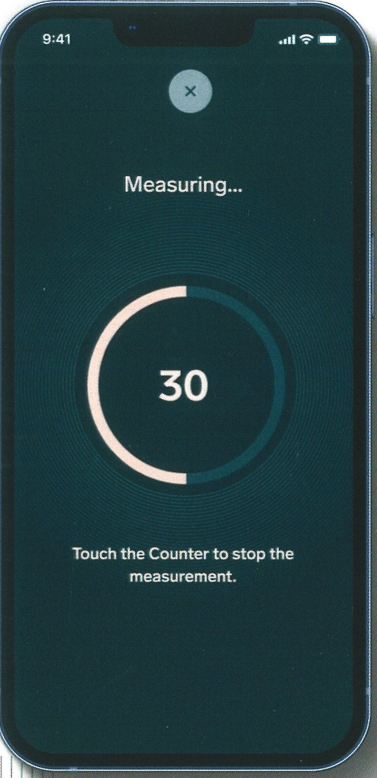
We are developing a digital cardiac biomarker to advance earlier detection of:

- Atrial fibrillation
- Heart failure
- Coronary artery disease
- Valve disease
- Pulmonary hypertension

As well as heart physiology metrics, such as VO2 max, respiratory rate, heart rate, and heart rate variability.

10+

YEARS OF ACADEMIC RESEARCH AND ALGORITHM DEVELOPMENT.



Immediate result

The first technology that enables easy and accessible heart health analysis to advance earlier detection of several major heart disease in a virtual care setup – no additional hardware is needed.

Please check the availability of different CardioSignal products and their regulatory status in your region.

Contact us at support@cardiosignal.com (Europe, India) and tpa@cardiosignal.com (United States).

Benefits for the Healthcare Professional

- Advances early detection and monitoring of heart diseases in virtual care models
- Quickly identifies at-risk individuals that require further medical examination
- Helps prevent adverse health outcomes caused by undetected heart conditions

Phase III development

Capabilities	CardioSignal platform	PPG-based smartphone applications	ECG-based home monitors or wearables	LAB screening (NT-proBNP, Troponin)	Coronary CT (hospital)	Heart ultrasound (hospital /clinic)
Does not require a separate device purchase	✓	✓	✗	✗	N/A	N/A
Atrial fibrillation	✓	✓	✓	✗	✗	✓/ ✗
Heart failure	✓	✗	✗	✓	✗	✓
Coronary artery disease	✓	✗	✗	✓	✓	✓/ ✗
Aortic stenosis	✓	✗	✗	✗	✗	✓

We offer clinically proven precision and reliability. We conduct clinical studies and research with our academic collaborators. To learn more about our performance in different clinical applications, please contact us.

About Us

CardioSignal by Precordior® is a health technology platform for developing digital cardiac biomarkers for earlier detection of heart disease. Originally an academic spinoff, the company's patented technology is built on a decade of research and algorithm development. The company is based in Finland and United States. Learn more: us.cardiosignal.com