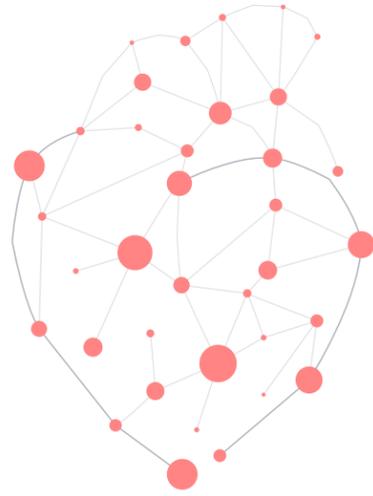
A high-angle photograph of a doctor in a light grey lab coat using the Eko stethoscope on a patient's chest. The patient is wearing a blue and white striped shirt. The doctor is holding a smartphone in her left hand, which displays an ECG waveform on the screen. The Eko device is a small, white, circular stethoscope that connects to the smartphone. The background is a neutral, light-colored wall.

FDA Clears Eko's AFib and Heart Murmur Detection Algorithms.

Making it the first AI-powered
stethoscope to screen for serious
heart conditions.

Eko



About Eko's AI

Eko's AI is a cloud-based software application programming interface (API) that allows a user to upload ECG and heart sound/phonocardiogram (PCG) data for analysis. The software uses several methods to interpret the acquired signals, including signal processing and convolutional neural networks.

The software is intended to provide support to the physician in the evaluation of patients' heart sounds and ECGs. The software analyzes simultaneous ECG and heart sounds and will detect the presence of suspected murmurs in the heart sounds. The software also detects the presence of atrial fibrillation and normal sinus rhythm from the ECG signal. In addition, it calculates certain cardiac time intervals such as heart rate, QRS duration and electromechanical activation time (EMAT). The software does not distinguish between different kinds of murmurs and does not identify other arrhythmias.

Eko's AI is not intended as a sole means of diagnosis. The interpretations of heart sounds and ECG offered by the software are only significant when used in conjunction with physician over-read and when used on adults (> 18 years).



FDA Clears Eko's AFib and Heart Murmur Detection Algorithms, Making It the First AI-Powered Stethoscope to Screen for Serious Heart Conditions

Eko's algorithms alert clinicians to the presence of heart murmurs and atrial fibrillation (AFib) during the physical exam, converting the classic stethoscope into a powerful early detection tool

SAN FRANCISCO, Jan. 28, 2020 - Eko, a digital health company applying artificial intelligence (AI) in the fight against heart disease, announced today that the U.S. Food and Drug Administration (FDA) has cleared a suite of algorithms that, when combined with Eko's digital stethoscopes, will enable healthcare providers in the U.S. to more accurately screen for heart conditions during physical exams. If left undiagnosed, these heart conditions can lead to stroke and heart failure.

"Our vision since day one has been to build seamless technology that helps providers more accurately detect heart disease, the leading killer in the world, by putting the ears of a cardiologist in any clinician's stethoscope," says Connor Landgraf, Eko's Co-Founder and CEO. "Eko's new ability to alert a provider to the presence of a heart murmur or atrial fibrillation during the standard physical exam brings that vision to life."

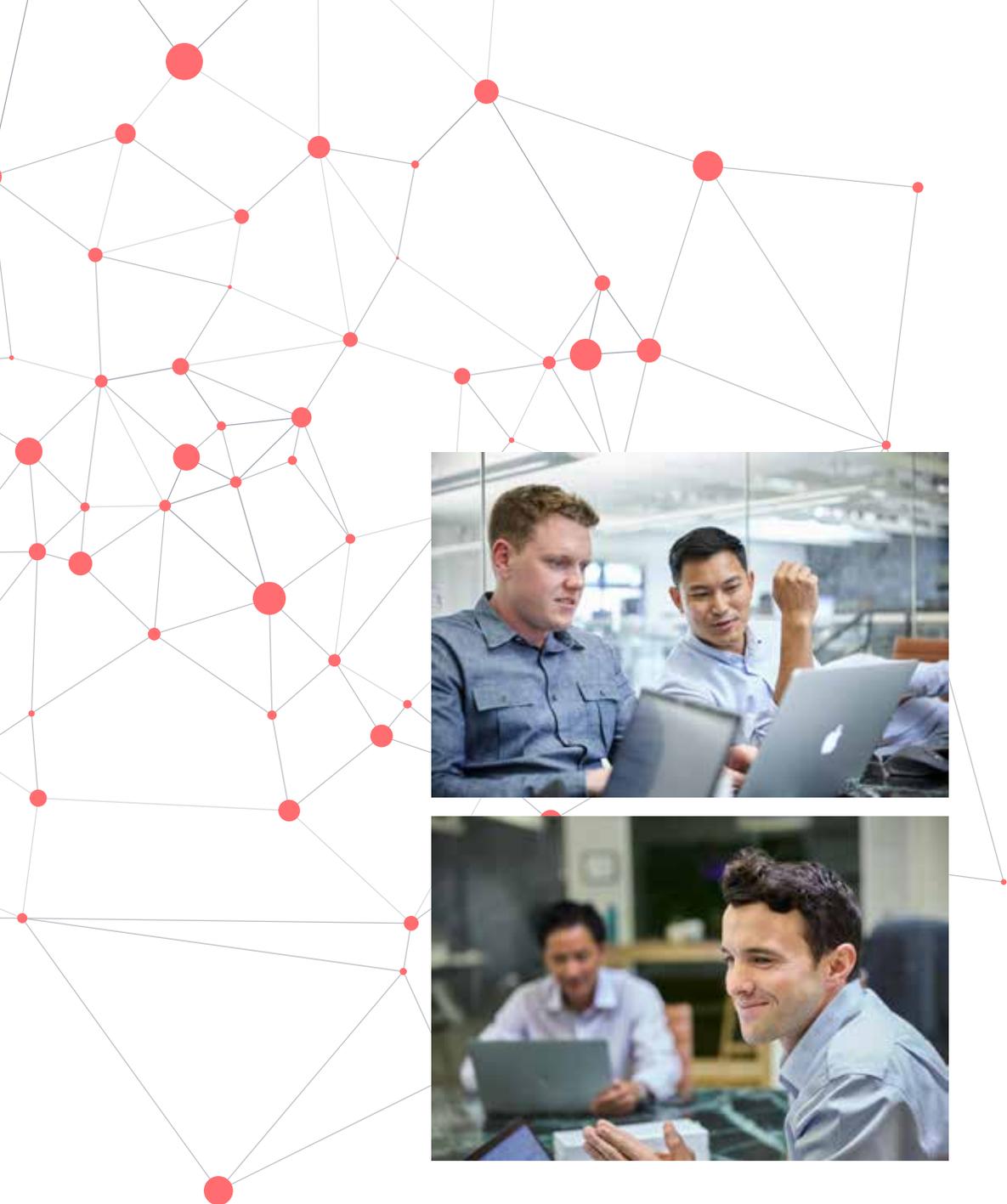


Key Points:

- Patients with valvular heart disease and AFib often go undiagnosed during the physical exam. Murmurs indicative of valvular heart disease can be extremely difficult for clinicians to hear and AFib may not be detected during the physical exam. AFib is an irregular and often rapid heartbeat that can lead to blood clots, strokes, heart failure and other heart-related complications.
- Eko's AI is able to identify heart murmurs, a leading symptom of valvular heart disease, with 87% sensitivity and 87% specificity. In comparison, a recent study revealed that using traditional stethoscopes, primary care physicians had a sensitivity of 43% and a specificity of 69% for detecting significant valvular heart disease, which affects over 5 million Americans.
- The AI is able to detect AFib with 99% sensitivity and 97% specificity when analyzing the 1-lead ECG tracing from the Eko DUO stethoscope. The integration of ECG into the stethoscope enables providers to quickly screen patients for the life-threatening arrhythmia during a standard physical exam.

"Two centuries after its invention, the stethoscope is still the front line tool to detect cardiovascular disease," says Dr. Patrick McCarthy, Executive Director of the Bluhm Cardiovascular Institute at Northwestern Medicine and member of Eko's Scientific Advisory Board. "Eko's development of artificial intelligence algorithms to help clinicians better interpret sounds, identify arrhythmias and detect heart murmurs during a physical exam is going to make a huge difference in our ability to care for patients."

Eko's AFib and Murmur screening algorithms are the first in a suite of cardiac screening algorithms Eko plans to combine with its digital stethoscope devices to assist providers in the detection of cardiovascular conditions. In December 2019, Eko announced the FDA had granted the company breakthrough status for a novel ECG-based algorithm that, if FDA-cleared, could provide an easily accessible screening test for heart failure. Since the release of its first-generation Eko CORE device in 2015, Eko's technology has been adopted by clinicians at more than 4,000 hospitals and clinics in the U.S. and Europe.



About Eko

Eko is driving the next evolution in cardiac care by creating digital health solutions that enable doctors, nurses and entire health systems to change how we care for the heart. Eko brings together advanced stethoscopes, patient and provider software, and AI-powered analysis—elevating the way clinicians detect and monitor cardiovascular disease. Its FDA cleared platform is used by thousands of clinicians treating tens of millions of patients around the world. Eko is a privately-held company headquartered in Berkeley, California. For more information

[visit **ekohealth.com**](http://ekohealth.com)

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