



SONOSPHERE MEDICAL WILL DISRUPT THE PAD DIAGNOSTICS INDUSTRY

Sonosphere Medical, an Israeli startup, is developing a novel tool for peripheral artery diagnosis (PAD) and 3D reconstruction of the organ. Targeting millions of at-risk patients, the company's patent pending technology incorporates an advanced algorithm, proprietary ultrasound gel and a simple add-on to standard ultrasound transducers, to create 3D visualization of the subject's artery and the organ's surface area, presenting accurate blood flow data, in real-time. Sonosphere is part of the ARC innovation center at Sheba Medical Center and of GO (Ofek Galil) Innovation incubator.

PRIMARY CONTACT

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MILESTONES (PENDING INVESTMENT)

Q1/2024 Clinical trial recruitment at Sheba
Q3/2025 Gen 1 510K clearance
Q1/2026 Pre-sub for Gen 2

INTELLECTUAL PROPERTY

Patent Pending (national phase)

FUNDRAISING HISTORY

Grant: \$250K -Israel Innovation Authority (Kamin)
Incubator: \$0.8M

PARTNERS



TEAM

Ilan Landesman, CEO
Dr. Chen Giladi, PhD, CTO
Dr. Chen Speter, MD
Dr. Doron Manzur, MD

PROBLEM

Peripheral artery disease can have disastrous consequences if not diagnosed on time

PAD is associated with increased risk of cardiovascular diseases such as coronary heart disease and stroke, as well as with limb amputation. Chronic Threatening Limb Ischemia (CTLI) is a severe form of PAD, with a mortality and amputation incidence of ~20% among patients. As such, there is a great need for early diagnosis.

SOLUTION

Current solutions have significant limitations

There are 2 main approaches for diagnostics: Doppler/Duplex ultrasounds, used as the first-line of diagnosis and Computed Tomographic Angiography (CTA) or Magnetic Resonance Angiography (MRA). Doppler and Duplex tests are inexpensive, no-risk, non-invasive tests; however, they suffer from high operator dependency and inaccuracies, with insufficient anatomical visualization to support invasive stenosis correction procedures. Doppler cannot provide accurate blood flow rate while Duplex's accuracy is dependent on the operator's competency, and can therefore take time. CTA is a quick and more accurate test, providing adequate visualization, however it is expensive and can be associated with risks from iodinated contrast and/or ionizing radiation. MRAs provide accurate visualization, but this test is expensive, takes extensive time to complete, the results can be affected by patient movement, and the experience is unpleasant.

TECHNOLOGY

Sonosphere's novel technology for improved visualization

Combining an advanced, proprietary algorithm with proprietary ultrasound gel and an add-on to existing ultrasound machines, Sonosphere will revolutionize the Duplex ultrasound market, and eventually replace current visualization technologies completely. Sonosphere's technology tracks and reconstructs the exact anatomy of the artery by registering each ultrasound image with its specific spatial coordinates, to produce a 3D image of the artery. The advanced algorithm calculates the associated "corrected" flow rate, generating highly accurate data on the blood flow within the artery. Taken together, the result is a next generation, user-agnostic, 3D ultrasound for arterial visualization and blood flow calculation, that can be used both for diagnosis and to support surgical procedures.



MARKET

Huge market opportunity with the potential for millions of annual tests

- The vascular imaging market is poised to reach \$11.2B in 2032, up from \$5.95B in 2023, growing at a 6.5% CAGR
- 238 million PAD patients globally, 64 million in high income countries
- 8.5 million PAD patients in the US over the age of 40
- The American College of Cardiology and American Heart Association recommend screening for PAD to anyone over the age of 65, anyone over 50 with risk factors, and adults under 50 with diabetes and 1 risk factor