

WHAT IF there were a heart assist device about the size of a AA-battery?

There are millions of older patients with failing hearts who could benefit from a ventricular assist device, but the open-heart surgery to implant these ‘VADs’ is very invasive. In the future, they may have a less invasive option to open-heart surgery: the tiny **MiFlow™ VAD** from WorldHeart.

Regarding currently marketed VADs, the **National Heart, Lung, and Blood Institute (NHLBI)** says the following: “A ventricular assist device (VAD) is a mechanical pump that’s used to support heart function and blood flow in people who have weakened hearts. The device takes blood from a lower chamber of the heart and helps pump it to the body and vital organs, just as a healthy heart would. **Getting a ventricular assist device (VAD) involves some serious risks.** These risks include blood clots, bleeding, infection, and device malfunctions.”

The **University of Chicago Medical Center** offers this information to prospective VAD patients: “...implanting a VAD requires major surgery, and most patients need to stay in the hospital for about two weeks after the operation.”

Opinions about currently marketed ventricular assist devices (VADs)...



John Campbell Woodard, MD
Chief Technology Officer, WorldHeart

“Because VADs are used in the treatment of critically ill patients, outcomes vary widely according to the state of the patient’s health before the implantation. No doubt, a miniature, minimally invasive VAD would be a big step forward.”

Jal Jassawalla

Former EVP and Chief Technology Officer, WorldHeart

“Currently marketed VADs are available to patients in cardiovascular crisis, but their use is contraindicated in older patients. Therefore, a miniaturized VAD that could be implanted in a minimally invasive manner should be most heartily welcomed.”



James F. Antaki, Ph.D.

Dept. of Biomedical Engineering, Carnegie Mellon University

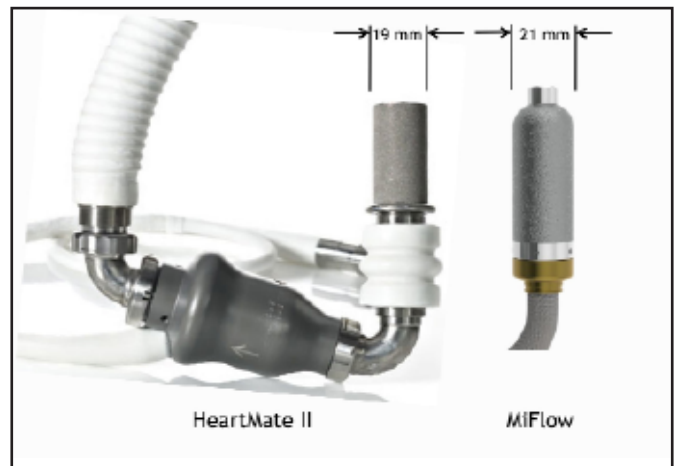
“Current mechanical circulatory support devices have made great progress in proving safety, clinical benefit, and durability in the treatment of congestive heart failure (CHF). However, there have been, and continue to be, significant barriers to widespread clinical use.”

WorldHeart’s Miniaturized MiFlow™ VAD



The MiFlow™ VAD

WorldHeart believes that the tiny size of the **MiFlow VAD** will reduce the invasiveness of traditional VAD surgery and speed patient recovery. The small size is the result of using the Company’s breakthrough and proprietary **Maglev™** technology. Because the **MiFlow VAD** represents a giant step in size reduction for VADs, the Company believes that the **MiFlow VAD** will support a larger patient population than just late-stage heart failure patients.



HeartMate II

MiFlow

High complication rates are associated with currently marketed VAD technologies. WorldHeart’s miniaturized **MiFlow™ VAD** is designed to address significant issues of currently marketed devices, including stroke, bleeding, device failures, and invasiveness of implantation.

Any forward-looking statements in this release are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and include all statements relating to WorldHeart’s **MiFlow™ VAD** and **PediaFlow® VAD**, and the progress of WorldHeart’s clinical development program.