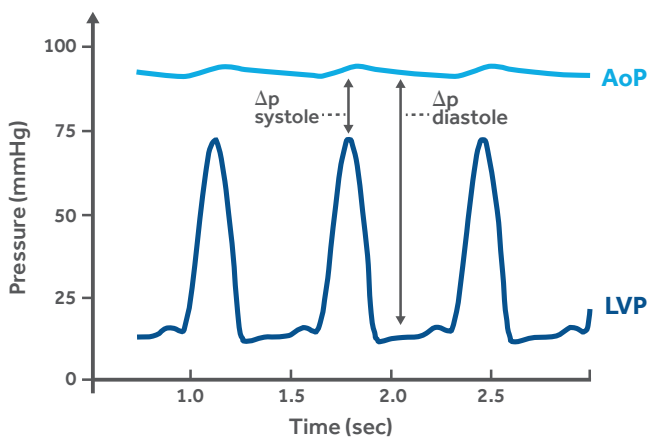


# NEW WAVEFORM APP

HeartWare™ HVAD™ System

With increasing Aortic Pressure (AoP),  
does the HVAD flow go up or down?<sup>1</sup>



To learn more, download the new  
Waveform App today

## SMART INFORMATION

Enhance your HVAD Waveform knowledge  
with the new Waveform App\*

- Cardiovascular simulation based on physiologic inputs<sup>2</sup>
- Expanded menu of clinical parameters
- Waveform scenarios utilizing realistic cardiac physiology and hemodynamic situations<sup>1</sup>
- Interactive Advanced Screen which includes:
  - Pressure-Volume Loops of all 4 cardiac chambers
  - Aortic & Left Ventricular pressure waveforms parallel the HVAD Flow waveform for easy correlation
  - Hemodynamic Outputs including AoP, PAP, PCWP, CVP, CO, EDV, and EDP

\*Simulated HVAD™ Pump performance. Not intended for clinical diagnosis



Available on the iPad

App Store

Medtronic

VISIT THE  
APP STORE ON  
YOUR IPAD AND  
**DOWNLOAD**  
**HVAD WAVEFORMS**  
TO START  
LEARNING



For further information regarding integrating waveforms into clinical practice, read:

**Rich, J, Burkhoff, D. HVAD Flow Waveform Morphologies: Theoretical Foundation and Implications for Clinical Practice. ASAIO. 2017; Epub ahead of print.**

#### References

1. Rich, J.D., Burkhoff, D. HVAD flow waveform morphologies: Theoretical foundation and implications for clinical practice. ASAIO. 2017; Epub ahead of print.
2. Darshan, D., Burkhoff, D. Cardiovascular simulation of heart failure pathophysiology and therapeutics. Journ of Cardiac Failure. 2016; 22(4).

This Waveform App is provided for general educational purposes of the HVAD System. The waveform scenarios presented in this Waveform App are fictional and are also for educational purposes only. At all times, it is the professional responsibility of the practitioner to exercise independent clinical judgement in a particular situation. Changes in a patient's disease and/or medications may alter the efficacy of a device's programmed parameters or related features and results may vary. The device functionality and programming described in this Waveform App are based on the HVAD System and can be referenced in the HVAD System IFU.

#### **Brief Statement: HeartWare™ HVAD™ System**

Refer to the "Instructions for Use" for detailed information regarding the implant procedure, indications, contraindications, warnings, precautions and potential adverse events prior to using this device. The IFU can be found at [www.heartware.com/clinicians/instructions-use](http://www.heartware.com/clinicians/instructions-use).

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