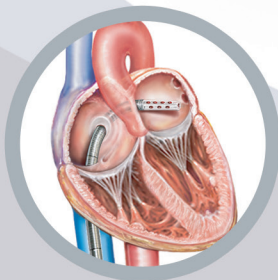


When it comes to performance,
TandemHeart[®] delivers.



The *TandemHeart*[®] System

The TandemHeart System is a percutaneous extracorporeal platform for temporary circulatory support that delivers up to 5.0 L/min of cardiac output augmentation with full physiologic pressure support for the heart. Transseptal cannulation of the left atrium provides optimal unloading by enabling percutaneous bypass of the left ventricle.

How the System Works

- Withdraws oxygenated blood from the left atrium via a transseptal cannula; returns to the femoral artery
- Creates an extracorporeal circuit that completely bypasses the left ventricle, our target for work reduction



TandemHeart
Escort Controller



TandemHeart
Transseptal Cannula



TandemHeart
Centrifugal Pump

Designed for Ease-of-Use

- On-screen, step-by-step instructions guide you through system setup
- Space-saving controller and 1-hour battery backup simplify patient transport

The TandemHeart Advantage

- Left atrial cannulation to completely bypass the LV
- Stable flow throughout the cardiac cycle
- Strong, centrifugal pump to deliver physiologic pressure
- **Up to 80% work reduction for the left ventricle**

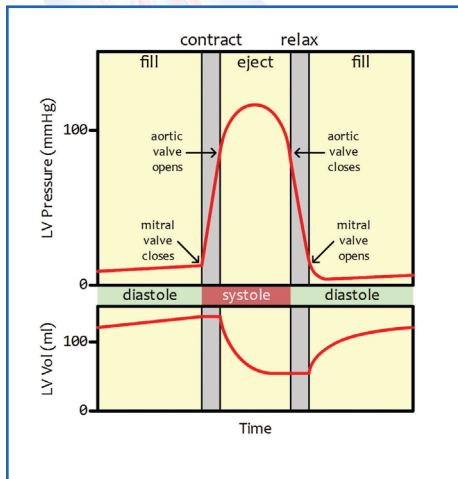
Two Objectives for Circulatory Support

- Augment the flow of oxygenated blood to the patient's vital organs
- Decompress the left ventricle to reduce the work of the native heart

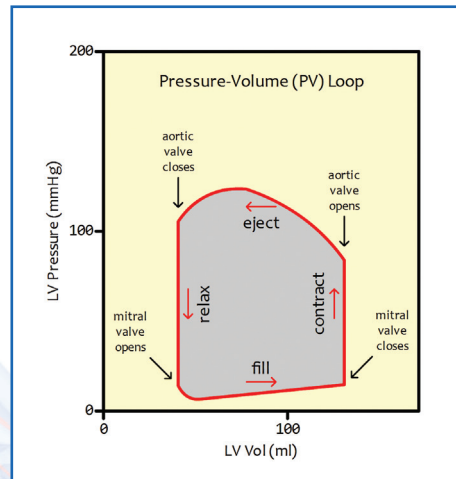
Work is a function of both Pressure and Volume: $W = \int_{V_i}^{V_f} p dV$

The Pressure-Volume (PV) Loop

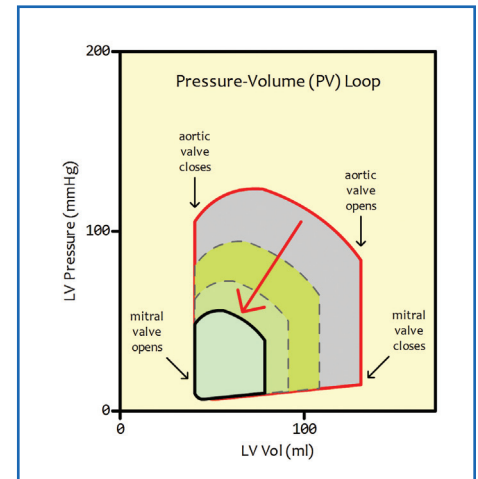
- Provides a common framework to evaluate the technical performance of different support platforms
- Shape, size and position provide information about the capability of a platform to meet stated objectives



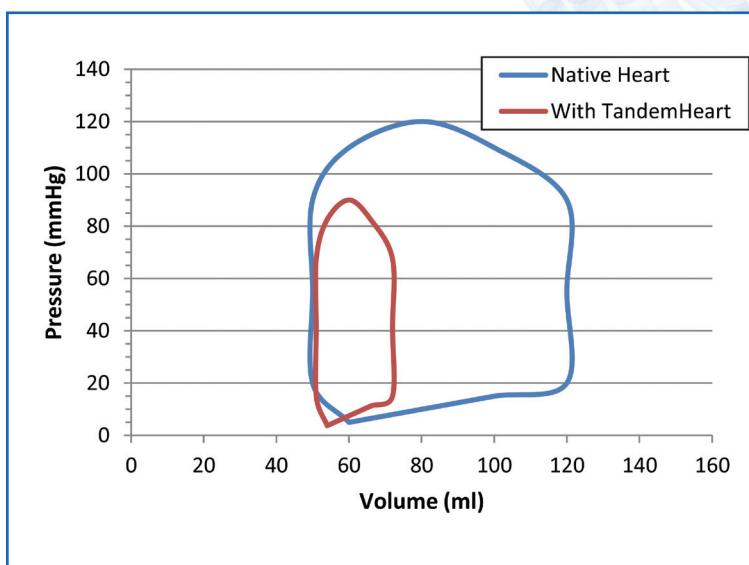
Pressure and volume inside the left ventricle can be measured during the cardiac cycle by using conductance catheters.



When plotted against one another, these measurements form a loop with an area equal to the work done by the left ventricle in a single cardiac cycle.



A smaller area inside the PV loop means less work is being done by the left ventricle and more work is being done by the circulatory support system.



TandemHeart PV Loop Performance

The combination of left atrial cannulation with a high-flow centrifugal pump enables up to **80% work reduction for the left ventricle.**

24/7 Clinical Support Hotline

USA: (800) 373-1607

International: (412) 579-6182

Reimbursement Support

(855) 336-3051

reimbursement@tandemheart.com

The TandemHeart System is FDA-cleared and CE-marked.
Federal (USA) law restricts this device for sale by or on the order of a physician.
TandemHeart is a registered trademark of CardiacAssist, Inc.

TandemHeart[®]

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