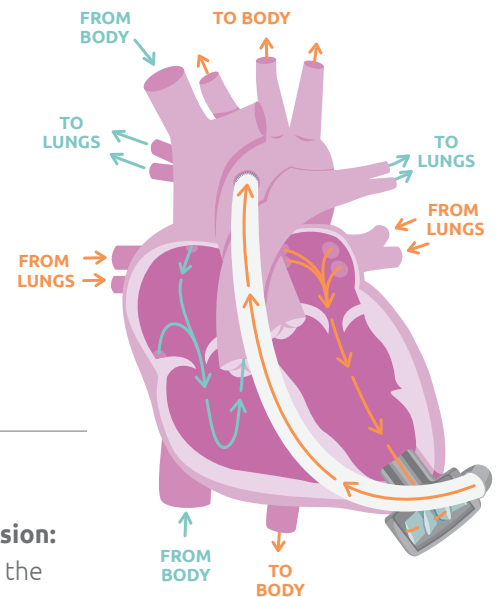


Ventricular Assist Devices

in Pediatric Patients

What is a VAD?

A **Ventricular Assist Device (VAD)** is a mechanical pump that helps a sick or weak heart pump blood through the body. It is used in children with heart problems—either from birth or acquired over time—who have symptoms like shortness of breath, low energy, or difficulty feeding or growing. A VAD can help your child feel better while waiting for heart transplant or as long-term support.



Why use a VAD?

Bridge to Transplant:

Supports the heart until a donor heart is available.

Bridge to Recovery:

Supports the heart and helps it heal.

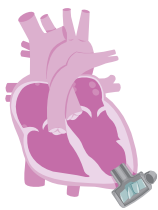
Bridge to Decision:

Allows time for the medical team and family to decide next steps.

Chronic Support: Used as a way to improve quality of life if transplant or recovery is not an option.

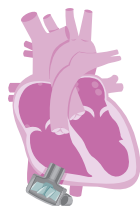


Where is the VAD placed?



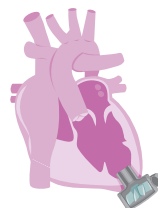
LVAD
(Left VAD)

Supports the left side of the heart to pump blood to the body.



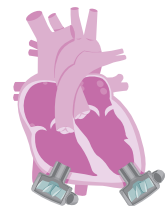
RVAD
(Right VAD)

Supports the right side to pump blood to the lungs.



SVAD
(Systemic or Single VAD)

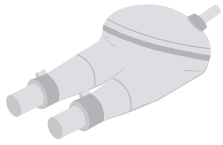
For children with only one working ventricle.



BiVAD
(Biventricular VAD)

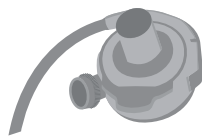
Supports both sides of the heart.

Types of VADs Used in Children



Berlin Heart EXCOR®

- Used for smaller children.
- The pump is outside the body and connected via tubes called cannulas through the abdomen.
- Children stay in the hospital through transplant or removal.



HeartMate 3™

- Used for larger children.
- The pump is inside the chest, connected to batteries or wall power.
- Children may go home while waiting for transplant or removal.



Impella®

- Used for larger children.
- The pump is inserted through a blood vessel and sits at the collarbone or leg.
- Often used in ICU settings for temporary heart support.



PediMag™ & CentriMag™

- Used for smaller children.
- The pump is outside the body and connected via tubes called cannulas through the abdomen.
- Blood spins continuously. Used for both temporary and long-term

Understanding the Risks of a VAD



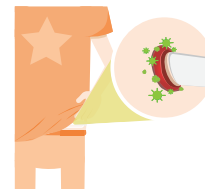
Stroke

Blood clots or bleeding in brain.



Bleeding

Due to blood thinners needed while on VAD.



Infection

From tubes that connect through the skin.