



## Fist Assist

Fist Assist is a non-invasive, external medical device which uses a pneumatic balloon for intermittent vein compression.

- ✓ Wearable, intermittent pneumatic compression device
- ✓ Automated - relative advantage
- ✓ 2018 Hemodialysis Device Innovation Award: ISHD



## How it Works?

The Fist Assist device apply intermittent pressure to a specific arm vein that may help dilate the vein for blood draw and eventual AV fistula placement.

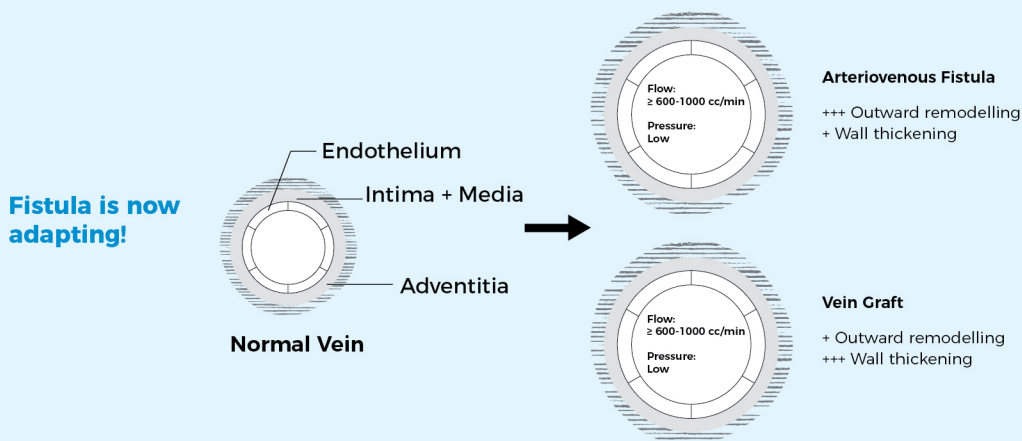
- Assist with Venous Pre-surgery preparation
- Assist with Fistula Maturation
- Decrease total catheter contact time and fistula development time
- Improve fistula maturation and cannulation
- Significantly reduce costs in treating Stage 4 and ESRD markets
- Empower patients to have a device for vein dilation and phlebotomy



## Vein Dilation

- Enlarged veins allow for successful AV Fistula surgery for hemodialysis
- Vein Dilation important for pre and post fistula placement
- Veins at least 2.5 cm or larger in forearm and 3.5 cm or larger in upper arm ideal
- Larger veins pre-surgery allows for better vein dilation after fistula surgery and faster maturation
- Multiple studies have confirmed large veins and vein dilation important

## Vein Adaptation to Hemodynamic Forces



## The Technology

- Intermittent, focal pneumatic compression balloon worn on arm.
- Focal compression of the arm superficial compartment.
- Focal, intermittent compression on the cephalic vein and its branches
- Pressure of 60 mm Hg for 20 seconds compression
- Intermittent nature allows for repeated compressions altering the vein biology with changes in flow, pressure and biochemical changes

