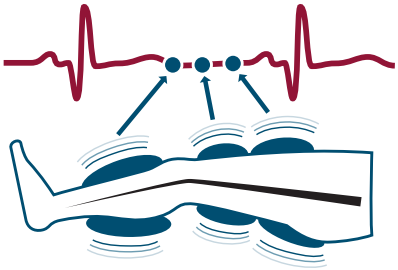
Mechanism of EECP®

The squeezing mechanism of EECP improves the hemodynamics of blood flow and shear stress to help generate progenitor and hematopoietic stem cells in the bone marrow. This improves endothelial function while reprofusing organ tissue.

In addition, elevated levels of nitric oxide and vascular endothelial growth factor (VEGF) are evident during EECP. These elevated levels help improve circulation and stimulates angiogenesis, resulting in improved endothelial function, along with a reduction of both circulating inflammatory markers and arterial stiffness.



Mechanism of Action

- Increased venous return
- Increased preload/stretch
- Increased cardiac output
- Retrograde arterial flow
- Increased diastolic pressure
- Increased intracoronary perfusion
- Increased vascular recoil / systolic unloading
- Decreased systemic vascular resistance
- Decreased afterload

Guidelines to EECP®

Candidates to Consider:

- Small vessel or diffuse disease resulting in symptoms
- CAD patients who live sedentary lifestyles
- Patients looking to restore exercise tolerance / functional capacity
- Patients who take excessive medication (Nitroglycerin, Ranexa) or do not get ample relief
- Patients looking to restore and improve overall quality of life
- Cardiac Syndrome X (microvascular angina)
- Left main disease
- Mild refractory angina (CCS Class II)
- Diabetes mellitus
- Patients looking to improve exercise capacity and oxygen consumption in heart failure patients with New York Heart Association Class II/III
- Systolic or diastolic heart failure
- Severe, diffuse coronary atherosclerosis
- Significant silent ischemia
- Unsuccessful or incomplete coronary revascularization
- High risk of adverse events related to invasive revascularization
- Challenging coronary anatomy, heart failure, renal failure, or pulmonary disease