i-cor

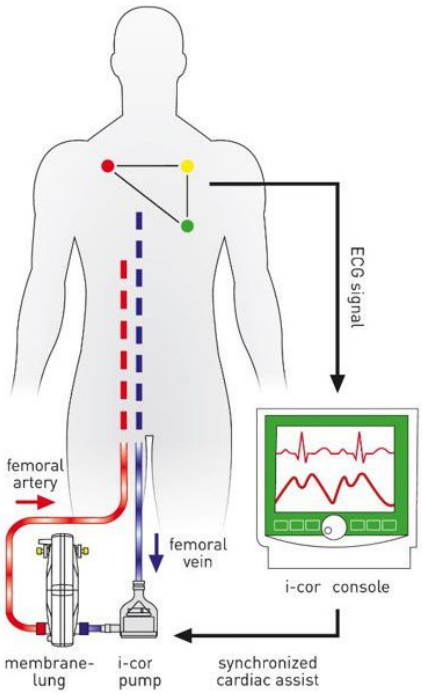
Therapies for Heart Failure

XENiOS i-cor is the first to offer Synchronized Cardiac Assist, which provides cardiac support in harmony with each heartbeat, designed to unite myocardial protection with organ perfusion.

i-cor Synchronized Cardiac Assist is the world's first circulatory support system to pump in synchrony with the heart. The i-cor Synchronized Cardiac Assist System makes possible a whole new chapter in circulatory support.

With Synchronized Cardiac Assist, the i-cor system is the world's first to harmonize mechanical circulatory support with the heartbeat. This innovation not only opens up new therapy options for patients who are suffering from cardiogenic shock, but also is designed to bridge patients across high-risk interventions in the cardiac cath lab.

The Synchronized Cardiac Assist technology, which is based on a miniaturized pulsatile pump for physiological beat-to-beat cardiac support, combines myocardial protection and organ perfusion by assisting the weakened heart with synchronized pulses. With this ECG-triggered pulsation i-cor actively improves coronary blood flow and limits afterload compared with conventional methods. (See illustration at right.)



The i-cor Synchronized Cardiac Assist System is the world's first circulatory support system to pump in synchrony with the heart and designed to: (1) improve coronary blood flow; (2) improve myocardial protection; (3) enhance organ perfusion.

Patients with cardiogenic shock have a very high mortality rate. Cardiogenic shock is a medical emergency. Cardiogenic shock results from an inadequate circulation of blood due to primary failure of the heart ventricles to function effectively. As this is a type of circulatory shock, there is insufficient perfusion of tissue to meet the demands for oxygen and nutrients.The condition involves increasingly more pervasive cell death from oxygen starvation (hypoxia) and nutrient starvation (e.g. low blood sugar).

Pulsatile perfusion is natural and essential to endothelial function, which ensures adequate tissue perfusion in the organs. Maintaining organ function serves to prevent multiorgan failure and to improve clinical outcomes. Oxygenation and CO_2 removal are integrated functions of i-cor. As a result, i-cor offers physiological circulatory support, protection and safety during interventions in the cardiac cath lab, and for the management of cardiogenic shock in the ICU and the cardiac cath lab.

What are Key Opinion Leaders saying about i-cor solutions for treating heart failure?

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"Our findings suggest that pulsatile flow made possible by the novel i-cor system provides better preservation of renal function and systemic vascular tone and thus is suitable to partially support patients with respiratory and/or cardiac failure."