How the ResQPOD® Works During CPR

The ResQPOD impedance threshold device (ITD) enhances circulation during basic or advanced life support CPR. This simple, non-invasive device regulates pressures in the chest and improves blood flow to the heart and brain.

Conventional CPR

CPR is inefficient
Conventional CPR is inherently inefficient, providing less than 25% of normal blood flow to the heart and brain. Compressing the chest forces air out of the lungs, and blood out of the heart. When the chest wall recoils, a small but important vacuum (negative pressure) is created inside the chest that helps return blood to the heart. Without the ResQPOD, air rushes back into the lungs and wipes out that critical vacuum, resulting in minimal blood return. With diminished filling, less blood circulates to the heart, brain, and other vital organs.

Survival rate: 6% national average

CPR with ResQPOD®

More blood circulated
Attached to a face mask or other airway adjunct, the ResQPOD selectively prevents air from re-entering the lungs during chest wall recoil (except when intended during ventilation). This enhances the vacuum (negative pressure), which pulls more blood back into the heart and lowers intracranial pressure (ICP). As a result, more blood is circulated to vital organs until the heart can be restarted.

In studies, survival with favorable neurologic outcomes increased by 25% or more compared with conventional CPR.
References


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The generally cleared indication for the ResQPOD available for sale in the United States (US) is for a temporary increase in blood circulation during emergency care, hospital, clinic and home use. Research is ongoing in the US to evaluate the long-term benefit of the ResQPOD for indications related to patients suffering from cardiac arrest. The studies referenced here are not intended to imply specific outcome-based claims not yet cleared by the US FDA.