

PAD 500P - CPR Advisor

Regardless of whether it is a layperson or a professional rescuer, ERC guidelines place a greater emphasis on the importance of effective CPR in increasing survival rates after out-of-hospital cardiac arrest.

HeartSine® samaritan® PAD 500P with CPR advisor is the most innovative device available to support these guidelines, giving rescuers feedback on the effectiveness of their CPR efforts – in real time – based on cardiac output.

How It Works

CPR stands for Cardio (heart) Pulmonary (lung) Resuscitation. It is a combination of compressing the heart to circulate blood to all the vital organs and, at the same time, breathing into the victim to give them oxygen.

The 500P provides the rescuer with real-time instructions regarding compressions with audible “Good Compressions” or “Push Harder,” “Push Faster” and “Push Slower.” This is also displayed on the face of the device in order to ensure the rescuer performs the most effective CPR.

An Impedance Cardiogram (ICG) is embedded in the software, which guides the user in the victim’s required force and speed of compressions. The ICG measures changes in blood volume in the chest cavity, which determines effective CPR. Because the blood flow is related to how fast the compressions are applied, as well as how hard, the 500P can guide the user on both force and depth.

After being instructed to “begin CPR,” an audible beep for the appropriate cadence will help the rescuer keep time when performing compressions.

The objective during CPR utilising the 500P is to hear “Good Compressions” and to see green on the CPR indicator.

Effective CPR Is Mission-Critical To The Survivability Of The Victim

“In order to maintain high-quality CPR, feedback to rescuers is important. The use of prompt/feedback devices during CPR will enable immediate feedback to rescuers, and the data stored in rescue equipment can be used to monitor the quality of CPR performance and provide feedback to professional rescuers during debriefing sessions.”

ERC Guidelines 2010 – European Resuscitation Council Guidelines for Resuscitation 2010
Section 2. Adult basic life support and use of automated external defibrillators

“Among the most common mistakes made [during CPR] are not giving compressions deep enough and performing compressions too fast or too slow.”

CPR and AED Review Manual, American Academy of Orthopaedic Surgeons, Jones and Bartlett Publishers, 2005

“Many aspects of bystander CPR have been criticised. Many studies of the retention of knowledge and skills have demonstrated a rapid deterioration over a period of only a few months.”

Friesen L., Scotts N. Retention of basic cardiac life support content: the effect of two teaching methods. J Nurs Educ 1984;23(5):184-191

Other devices on the market offering feedback on CPR measure the force applied by compressions on an electro-mechanical device placed on the victim’s chest. These devices will give the feedback “Good Compressions” if enough force is being applied to a box placed on the chest. However, they do not take into consideration differing sizes of patients or differing heart positions, etc.