

AED Use in Infants[Peds-001A](#), [Peds-001B](#)

Consensus on Science

One LOE 4³⁰⁰ and 2 LOE 5^{288,301} studies showed that infants in cardiac arrest (in- and out-of-hospital) may have shockable rhythms. Evidence from 3 LOE 5^{302,-,304} studies showed that many AED devices can safely and accurately distinguish between a shockable and nonshockable rhythm in infants and children.

The optimal energy dose for defibrillation in infants has not been established, but indirect data from 5 LOE 5 animal studies^{287,294,305,-,307} showed that the young myocardium may be able to tolerate high-energy doses. In 3 LOE 5 animal studies a pediatric attenuator used with an adult-dose biphasic AED shock was as effective and less harmful than monophasic weight-based doses²⁹⁰ or biphasic adult doses.^{292,293}

Two LOE 4 case reports^{308,309} described survival of infants with out-of-hospital cardiac arrest when AED use was coupled with bystander CPR and defibrillation using an AED. Two pediatric LOE 5 case reports^{310,311} noted successful defibrillation with minimal myocardial damage and good neurologic outcome using an AED with adult energy doses.

Treatment Recommendations

For treatment of out-of-hospital VF/pulseless VT in infants, the recommended method of shock delivery by device is listed in order of preference below. If there is any delay in the availability of the preferred device, the device that is available should be used. The AED algorithm should have demonstrated high specificity and sensitivity for detecting shockable rhythms in infants. The order of preference is as follows:

1. Manual defibrillator
2. AED with dose attenuator
3. AED without dose attenuator