

**CARDIAC ARREST- PEDIATRIC
VENTRICULAR FIBRILLATION/
PULSELESS VENTRICULAR TACHYCARDIA**

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Information Needed:

See Pediatric Cardiac Arrest Overview Protocol

- VF is uncommon in children. When seen be suspicious of underlying cardiac disease (eg. congenital anomalies, cardiomyopathies or acute cardiac inflammation) or other possible causes (as listed in PEA protocol).
- For neonates(< 29 days) refer to Neonatal Resuscitation Protocol
- Utilize the Broselow Tape to measure length and then SMC Pediatric Reference Card for determination of drug dosages, fluid volumes, defibrillation/cardioversion joules and appropriate equipment sizes.

Objective Findings:

- Rhythm assessed as ventricular fibrillation or pulseless ventricular tachycardia

Treatment:

- Start CPR utilizing American Health Association (AHA) BLS standards until defibrillator available
- Plan actions before interrupting CPR
- Defibrillate once with appropriate joules
- Resume CPR for 2 minutes immediately after the shock.
- Standard cardiac arrest care (CPR, BVM with 100% oxygen, and establish IV/IO access). Minimize interruptions in chest compressions.
- Check rhythm. If asystole/PEA or pulse is present, go to appropriate protocol.
- Give epinephrine (1:10,000) when IV/IO established. May repeat q 3-5 minutes
- Defibrillate with appropriate joules
- Resume CPR for 2 minutes immediately after the shock.
- Give IV/IO fluid bolus of NS for any signs of hypoperfusion. Reassess. May repeat twice as indicated. Contact Pediatric Base Hospital Physician for additional fluid orders.
- Continue CPR, epinephrine, and defibrillation while minimizing interruptions
- If rhythm changes, check for pulses and proceed to appropriate Pediatric Cardiac Arrest or Dysrhythmia Protocol as indicated.

San Mateo County EMS Agency
Pediatric Treatment Protocols

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Precaution and Comments:

- When defibrillating/cardiverting patients \leq 10kg weight (GRAY, PINK, and RED color zones), use “pediatric” pads. Optimal placement of pads in this age group is anterior-posterior placement (one pad over the heart, the other on the back).
- When defibrillating/cardiverting patients \geq 10 kg weight (PURPLE through GREEN color zones), use “adult” pads with standard placement or follow manufacturers directions for hands free defibrillation.
- AEDs should be used according to manufacturer’s directions and/or AHA Guidelines. If AED is being used to defibrillate:
 - Pediatric attenuated shock for patient <8 years old
 - Adult shock for 8 years and older
- For refractory ventricular fibrillation, resuscitation efforts should be continued through transport to hospital.