

**Pediatric Advanced Life Support Study Guide**

**Normal values**

**Minimum systolic blood pressure** **Pulse** **Respiratory rate**

Newborn – 60 mmHg Newborn – 3 mo – 85-205 bpm Infant – 30-60/min
1-year-old – 70 mmHg 3 mo – 2 yrs – 100-190 bpm Toddler – 24-40/min
2-10 years old – 70 + (2 X age) mmHg 2-10 years old – 60-140 bpm Preschooler – 22-34/min
>10 years old – 90 mmHg >10 years old – 60-100 bpm School-aged child – 18-30/min

 Adolescent – 12-16/min

**Vascular access**IO quickly – avoid in crush injury, previous attempt, infection

May use in delayed cap refill

**Shock**
Hypovolemic – hemorrhagic, non-hemorrhagic
Distributive – anaphylaxis, sepsis, neurogenic

Cardiogenic – any abnormal rhythm, overdose, congenital heart defect, poisoning, myocarditis

Obstructive – tension pneumo, PE, tamponade, ductal-dependent

Resuscitation fluids – NS, Ringers at 10 - 20 ml/kg over 5-20 minutes, decrease to 5 - 10 ml/kg in non-rhythm-related cardiogenic conditions

May give 3 fluid boluses – auscultate before each bolus

After 3 – give PRBC/consider pressor

**Airway**

To avoid reperfusion injury, maintain O2 sat between 94 – 99%

Upper – barking cough, inspiratory – croup, anaphylaxis, FB obstruction
Lower – wheeze, expiratory – asthma, bronchiolitis

Parenchyma – crackles – pneumonia, pneumonitis

Disordered control of breathing – ICP, seizure

**Chest compressions**
Pulse checks (and assessment of breathing) should take less than 10 seconds

If no help, complete 2 mins of CPR before leaving to activate emergency response system

100 – 120 per minute

Allow adequate recoil

One-third the A/P chest diameter

30:2 one rescuer
15:2 two rescuers

**Defibrillation/cardioversion**

Initial energy level is 2 Joules/kg

Subsequent shocks 2-4 Joules/kg (not to exceed 200 Joules)

Resume compressions for 2 minutes after each shock

**Team-based dynamics**

If task is beyond scope – ask for new role

Closed-loop communication ensures accurate steps

In the event a team member is about to make a mistake, the Team Leader should address the issue immediately

The purpose of a CPR Coach is to ensure high quality CPR

The Team Leader should clearly delegate tasks to avoid inefficiencies during resuscitation