

**CENTRAL CALIFORNIA**  
**EMERGENCY MEDICAL SERVICES**  
A Division of the Fresno County Department of Public Health

Manual	Emergency Medical Services Administrative Policies and Procedures	Policy Number 530.32
Subject	Paramedic Treatment Protocols  <b>PEDIATRIC PRIMARY SURVEY</b>	Page 1 of 2
References	Title 22, Division 9, Chapter 4 of the California Code of Regulations	Effective Fresno County: 01/15/82 Kings County: 04/10/89 Madera County: 06/15/85 Tulare County 04/19/05

**SPECIAL CONSIDERATIONS AND PRIORITIES**

1. Evaluate airway and protective airway reflexes.

Identify signs of airway obstruction and respiratory distress including: cyanosis; stridor; drooling; nasal flaring; choking; grunting; intercostal retractions; absent breath sounds; bradycardia; apnea or bradypnea; and tachypnea.

2. Basic airway and spinal immobilization.

Open airway, using jaw thrust and chin lift, and/or head tilt if no suspected spinal trauma. Suction as needed. Consider placement of oral pharyngeal airway if child is unconscious. If cervical spine trauma suspected, immobilize spine with cervical immobilization device and backboard. Infants and young children may require under-shoulder support to achieve neutral cervical spine position. Children in car seats may be immobilized within their car seat.

3. Oxygen

Nasopharyngeal, oropharyngeal airway, mask, or oxygen blow-by, as tolerated, with child in position of comfort.

4. Assist ventilation.

Use chest rise as indicator of adequate ventilation. If chest rise is inadequate, consider: repositioning the airway; foreign body in airway; inadequate bag volume or activated pop-off valve. Rescue breathing includes two initial, slow breaths (1-1½ sec.) then rate of 20 breaths/minute for infant or child.

5. Evaluate circulation.

Assess perfusion using: heart rate; skin signs (mottling, pallor); capillary refill (delay greater than 2 sec.); mental status (lethargy); quality of pulse (weak, thready) and blood pressure. Compression rate is 120/minute for newborns, 100/minute for infants and children with 30:2 compressions, ventilations for single rescuer and 15:2 compressions, ventilations for 2 rescuers. Depth is 1/3 - 1/2 inch for infant and child.

Approved By	<b>Daniel J. Lynch</b>	Revision
EMS Director	(Signature on File at EMS Agency)	<b>06/01/2018</b>
EMS Medical Director	<b>Jim Andrews, M.D.</b> (Signature on File at EMS Agency)	

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6. Establish level of responsiveness.
7. Do environmental assessment including consideration of intentional injury.
8. Determine appropriate treatment protocol.
9. Utilize Broselow Tape to determine equipment, medications and resuscitation guidelines. If patient is taller than the Broselow Tape, refer to adult protocols.
10. Establish IV if airway is secure with BLS airway. Accomplish simultaneously with other therapy if possible.

PEDIATRIC MEASUREMENTS – VITAL SIGNS					
Age	cm Length	Weight (kg) (50 <sup>th</sup> Percentile)	Avg Systolic Blood Pressure	Pulse/min	Resp/min
Preemie	0-53 cm	less than 2.5	--	greater than 120	--
Term NB	54-58 cm	2.5-4	60-70	greater than 120	30-50
3 months	59-65 cm	6	70-80	80-120	30-50
6 months	66-74 cm	7	80-100	80-160	30-50
1 year	75-86 cm	10	80-100	80-160	24-40
2 years	75-86 cm	12	94	80-130	24-32
4 years	87-99 cm	16	98	80-120	22-28
6 years	100-113 cm	20	102	70-115	22-28
8 years	114-132 cm	25	106	70-110	20-24
10 years	133-158 cm	34	110	70-110	20-24
12 years	100-113 cm	41	114	65-110	16-22
<p>Formulas for Systolic BP:</p> <p style="text-align: center;"><b>Lower BP Limit</b> <b>50<sup>th</sup> percentile BP for age over 2</b></p> <p style="text-align: right;"><b>Systolic BP = 70 + (2x age in years)</b> <b>Systolic BP = 90 + (2x age in years)</b></p> <p>Formula for weight:</p> <p style="text-align: center;"><b><u>Age in months</u> + 4 = Weight in kg</b> <b>2</b></p> <p><b>Less than 1 year old:</b></p> <p style="text-align: center;"><b>(Age in years x2) + 10 = Weight in kg</b></p> <p><b>Greater than 1 year old:</b></p>					
<b>NOTE: If patient is taller than the Broselow Tape, refer to adult protocols.</b>					