

Pediatric Vital Signs Reference Chart

Please note that numerous bodies have created reference ranges, and there may be discrepancies between different references. This table, along with our detailed references can be found online at <http://www.pedscases.com/pediatric-vital-signs-reference-chart>. For a more detailed approach to this topic, see our podcast on "Pediatric Vital Signs."

Heart Rate			Respiratory Rate	
Normal Heart Rates By Age (beats/minute) (Reference: Pediatric Advanced Life Support Guidelines)			Normal Respiratory Rate By Age (breaths/minute) (Reference: Pediatric Advanced Life Support Guidelines)	
Age	Awake Rate	Sleeping Rate	Age	Normal Respiratory Rate
Newborn to 3 months	85-205	80-160	Infants (<12 months)	30-60
3 months to 2 years	100-190	75-160	Toddler (1-3 years)	24-40
2 to 10 years	60-140	60-90	Preschool (4-5 years)	22-34
>10 years	60-100	50-90	School age (6-12 years)	18-30
			Adolescence (13-18 years)	12-16
Note: A major 2011 systematic review of pediatric heart rate and respiratory rate suggests that previously published reference ranges may require updating. Updated centile charts based on this study can be found here: http://madox.org/tools-and-resources				
Blood Pressure			Temperature	
Hypotension Reference Ranges (Reference: Pediatric Advanced Life Support Guidelines)			Normal values for temperature do not vary significantly with age. The type of thermometer will alter readings, and accuracy.	
Age	Systolic BP in mm Hg		Temperature Reference Ranges in Children (Reference: CPS Position Statement on Temperature Measurement in Pediatrics, 2015)	
Term Neonates (0-28 days)	<60		Method	Normal Range (°C)
Infants (1-12 months)	<70		Rectal	36.6-38
Children 1-10 years	< 70 + (age in years x 2)		Ear	35.8-38
Children >10 years	<90		Oral	35.5-37.5
For precise determination of a child's blood pressure percentile, specific reference tables have been developed based on a child's age, gender, and height: http://www.nhlbi.nih.gov/health-pro/guidelines/current/hypertension-pediatric-jnc-4/blood-pressure-tables .			Axillary	36.5-37.5
The CPS recommends axillary, tympanic and temporal artery thermometers for screening, and rectal and oral thermometers for definitive measurement.				
Oxygen Saturation				
Normal pediatric pulse oximetry (SPO2) values have not yet been firmly established. SPO2 is lower in the immediate newborn period. Beyond this period, normal levels are stable with age. Generally, a SPO2 of <92% should be a cause of concern and may suggest a respiratory disease or cyanotic heart disease.				