Topic: Pediatric Vital Signs

When children deteriorate, they generally deteriorate more rapidly than an adult. Vital signs and clinical status will assist you in determining is the child is in distress. Obtain a set of all vital signs on all children, including weight in kilograms. Vital signs are affected by a variety of internal and external factors, any abnormalities should be carefully reviewed.

Heart rate

- Should be taken for *one full minute*
- Infants and young children should have their heart rate taken at the apex of the heart using a stethoscope

Respiration

- Should be taken for *one full minute*
- Respiratory rhythm and depth are also clinically important, and can be determined with manual assessment and observation of the patient's respiratory pattern

Vital Sign Ranges

Age	Weight (kg)	Pulse	Resp	Systolic BP*
Newborn	3	100-180	30-60	60-70
6 mos	7	100-160	30-60	70-80
1 yr	10	100-140	24-40	72-107
2	12	80-130	24-40	74-110
3	14	80-130	24-40	76-113
4	16	80-120	22-34	78-115
5	18	80-120	22-34	80-116
6	20	70-110	18-30	82-117
8	25	70-110	18-30	86-120
10	30-35	60-100	16-24	90-123
12	40	60-100	16-24	90-127
14	50	60-100	16-24	90-132
15+	50-55+	60-100	14-20	90-135

*BP in children is a late and unreliable indicator of shock

Oral, Rectal & Axillary Temperatures

Assessment of appropriate route of temperature measurement:

Oral

- Patients assessed as being developmentally and cognitively appropriate, and who are not receiving oxygen via mask or hood
- Patients who do not have respiratory difficulties

Rectal

- Recommended for patients 6 months and younger
- Patients who are unconscious or present difficulty with oral temperature measurement related to cognitive function
- Patients who have not had rectal surgery or other rectal abnormalities
- Patients who are not immunocompromised

Axillary

- Patients for whom oral and rectal temperatures are contraindicated

Temperature Ranges

Method	Range (°C)	Fever* (°C)
Oral	36.5 - 37.5	38.0
Rectal	37.0 - 37.8	38.0
Axillary	36.1 - 37.1	37.3

***Note:**

- There is no single definition of fever
- Fever should be interpreted and managed in the context of the patient's age, illness and clinical picture
- Premature and small term infants may not be able to generate an elevated temperature in response to infection