**NORMAL PEDIATRIC VITAL SIGNS**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>HR Beat/min</th>
<th>RR Breaths/min</th>
<th>BP systolic mm/Hg</th>
<th>BP diastolic mm/Hg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newborn 0-1 month</td>
<td>100-180</td>
<td>30-60</td>
<td>73-92</td>
<td>52-65</td>
</tr>
<tr>
<td>Infant 1-12 months</td>
<td>80-150</td>
<td>30-60</td>
<td>90-109</td>
<td>53-67</td>
</tr>
<tr>
<td>Toddler 1-3 years</td>
<td>75-130</td>
<td>25-35</td>
<td>95-105</td>
<td>56-68</td>
</tr>
<tr>
<td>Pre-School 3-5 years</td>
<td>75-120</td>
<td>22-32</td>
<td>99-110</td>
<td>55-70</td>
</tr>
<tr>
<td>School Age 5-12 years</td>
<td>70-110</td>
<td>20-30</td>
<td>97-118</td>
<td>60-76</td>
</tr>
<tr>
<td>Adolescent 13-18 years</td>
<td>65-105</td>
<td>16-22</td>
<td>110-133</td>
<td>63-83</td>
</tr>
</tbody>
</table>

**GLASGOW COMA SCALE (GCS)**

**Category**
- Eye (E)
- Verbal (V)
- Motor (M)

**For Patients <2 Years Old**
- (1)  None
- (2)  Abnormal extension
- (3)  Increased resistance to pain
- (4)  Withdrawal to pain
- (5)  True localizes to pain
- (6)  Localizes to pain

**For Patients >2 Years Old**
- (1)  None
- (2)  Abnormal posturing
- (3)  Inappropriate words
- (4)  Incomprehensible
- (5)  Confused
- (6)  Oriented

**PEDIATRIC RISKS DURING DISASTERS**

**System / Area**
- Respiratory
- Gastrointestinal
- Skin
- Endocrine
- Thermoregulation
- Development
- Psychological

**Risk**
- Higher breaths/minute increases exposure to inhaled agents
- May be more at risk for dehydration
- Skin is thinner and more susceptible
- Increased risk of thyroid cancer from radiation exposure
- Less able to cope with temperature problems
- Less capability to escape environmental dangers
- Prolonged stress from critical incidents
- Susceptible to separation anxiety

**PEDIATRIC ASSESSMENT TRIANGLE (PAT)**

**CIRCULATION**

AVPU: Alert, Voice, Pain, Unresponsive - Used to assess level of consciousness or alertness in PAT

**Component**
- Abnormal Signs

**Appearance**
- Abnormal or absent cry or speech

**Breathing**
- Increased/respiratory effort

**Circulation**
- Cyanosis, mottling, pallor

**PEDIATRIC SIGNS OF RESPIRATORY DISTRESS AND RESPIRATORY FAILURE**

**Respiratory distress** is apparent when a child fails to maintain adequate gas exchange. As the child tires, effort and/or function deteriorate and gas exchange cannot be maintained. Respiratory failure requires intervention to prevent deterioration to cardiac arrest.

**Indicators may vary with severity**

**TREATMENT PRIORITIZATION**

**JUMPSTART FIELD PEDIATRIC MULTICASUALTY TRIAGE SYSTEM**

**Green** = Minor
**Yellow** = Delayed
**Red** = Immediate
**Black** = Expectant or Dead

**Sources for the Pediatric Surge Quick Reference Guide can be found online at:**
http://ems.dhs.lacounty.gov
www.CHLA.org/DisasterCenter

Guide last updated 2.22.13
**Appropriate Infant Nutrition**

**Age**

<table>
<thead>
<tr>
<th>Birth</th>
<th>1 mo</th>
<th>2-3 mos</th>
<th>4-6 mos</th>
<th>6-8 mos</th>
<th>8-12 mos</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3 ounces (60-90 mL)</td>
<td>3-4 ounces (90-120 mL)</td>
<td>4-5 ounces (120-150 mL)</td>
<td>6-8 ounces (180-240 mL)</td>
<td>6 ounces (180 mL)</td>
<td>6 ounces (180 mL)</td>
</tr>
</tbody>
</table>

Breastfeeding is best—support mothers with safe locations to breastfeed and remain hydrated.

**Normal Development**

**Age (years)**

<table>
<thead>
<tr>
<th>0-1</th>
<th>1-3</th>
<th>4-6</th>
<th>7-12</th>
<th>13-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn through senses; Seek to build trust</td>
<td>Imitates others; Understands objects exist even when not seen; Attempt to control environment</td>
<td>Vivid imagination; More independent; Shares with others</td>
<td>Understands cause and effect; Greater sense of self</td>
<td>Abstract thinking; Develops own identity</td>
</tr>
</tbody>
</table>

**Common Fears**

- Needs not being met; Stranger anxiety
- Separation; Loss of control; Altered rituals
- Bodily injury; Loss of control; Being left alone; Dark
- Loss of control; Bodily injury; Death
- Loss of control; Altered body image; Separation from peers

**Methods to Minimize Adverse Effects**

- Speak in quiet calm voice; Involve parents in care. Be aware of stranger anxiety
- Minimize separation from family; Provide continuity of familiar routines
- Be honest; Let child make choices when able. Reinforce child not responsible for injury or illness
- Explain treatment & procedures; Encourage self-participation in care

**Fluid Resuscitation**

1. Administer 20 mL/kg of isotonic or crystalloid (NS or LR).
2. Monitor: Perfusion, Urine output, Vital signs, LOC
3. Repeat bolus if no improvement
4. reassess status

Consider blood products in traumatic injuries requiring >40-60 mL/kg of fluid.

**Hypovolemic Shock**

- Hypovolemic shock is the most common type of shock in children.
- Children increase their cardiac output by tachycardia; therefore bradycardia is an ominous sign.

**Burn Treatment: Fluid Resuscitation**

**Fluid Resuscitation Formula (0 - 12 yrs.):**

\[
\text{3 - 4 mL x kg x } \% \text{TBSA burn (one half over 1st 8h, second 1/2 over next 16h)}
\]

**Equipment: Newborn - 6 years**

- **Weight**
  - 3 kg
  - 5 kg
  - 10 kg
  - 15 kg
  - 20 kg
- **ETT**
  - 3.0-3.5
  - 3.5-4.0
  - 4.0-4.5
  - 4.5-5.0
  - 5.0-5.5
- **L Blade**
  - Miller 0-1
  - Miller 1-2
  - Miller 2
- **Suction**
  - 6-8 Fr
  - 8-10 Fr
  - 10 Fr
  - 12 Fr
- **NG Tube**
  - 5-8 Fr
  - 8-10 Fr
  - 10 Fr
  - 12 Fr
- **Foley**
  - 6-8 Fr
  - 8-10 Fr
  - 10 Fr
- **Chest Tube**
  - 10-12 Fr
  - 12-16 Fr
  - 14-16 Fr
  - 16-20 Fr
  - 20-24 Fr
  - 24-32 Fr
- **LMA (cuff)**
  - 1 (4 mL)
  - 1.5 (7 mL)
  - 2 (10 mL)
  - 2 (10 mL)
  - 2.25 (14 mL)

**Equipment: 7 years and older**

- **Weight**
  - 25 kg
  - 30 kg
  - 40 kg
  - > 50 kg
- **ETT**
  - 5.5-6.0 cuffed
  - 6.0-6.5 cuffed
  - 7.0-7.5 cuffed
  - 7.5-8.0 cuffed
- **L Blade**
  - Mil/Mac 2
  - Mil/Mac 3
- **Suction**
  - 10 Fr
  - 12 Fr
  - 16 Fr
  - 18 Fr
- **NG Tube**
  - 12-14 Fr
  - 14-16 Fr
  - 16-18 Fr
- **Foley**
  - 12 Fr
  - 12 Fr
  - 16 Fr
  - 16 Fr
- **Chest Tube**
  - 28-32 Fr
  - 32-40 Fr
  - 40 Fr
- **LMA (cuff)**
  - 2.5
  - 3 (20 mL)
  - 3 (20 mL)
  - 4 (30-50 mL)