

# **TAKING CARE OF THE LITTLE ONES.**

## **A guide to pediatric assessment.**

**Mary Davis BSN,C-EN**

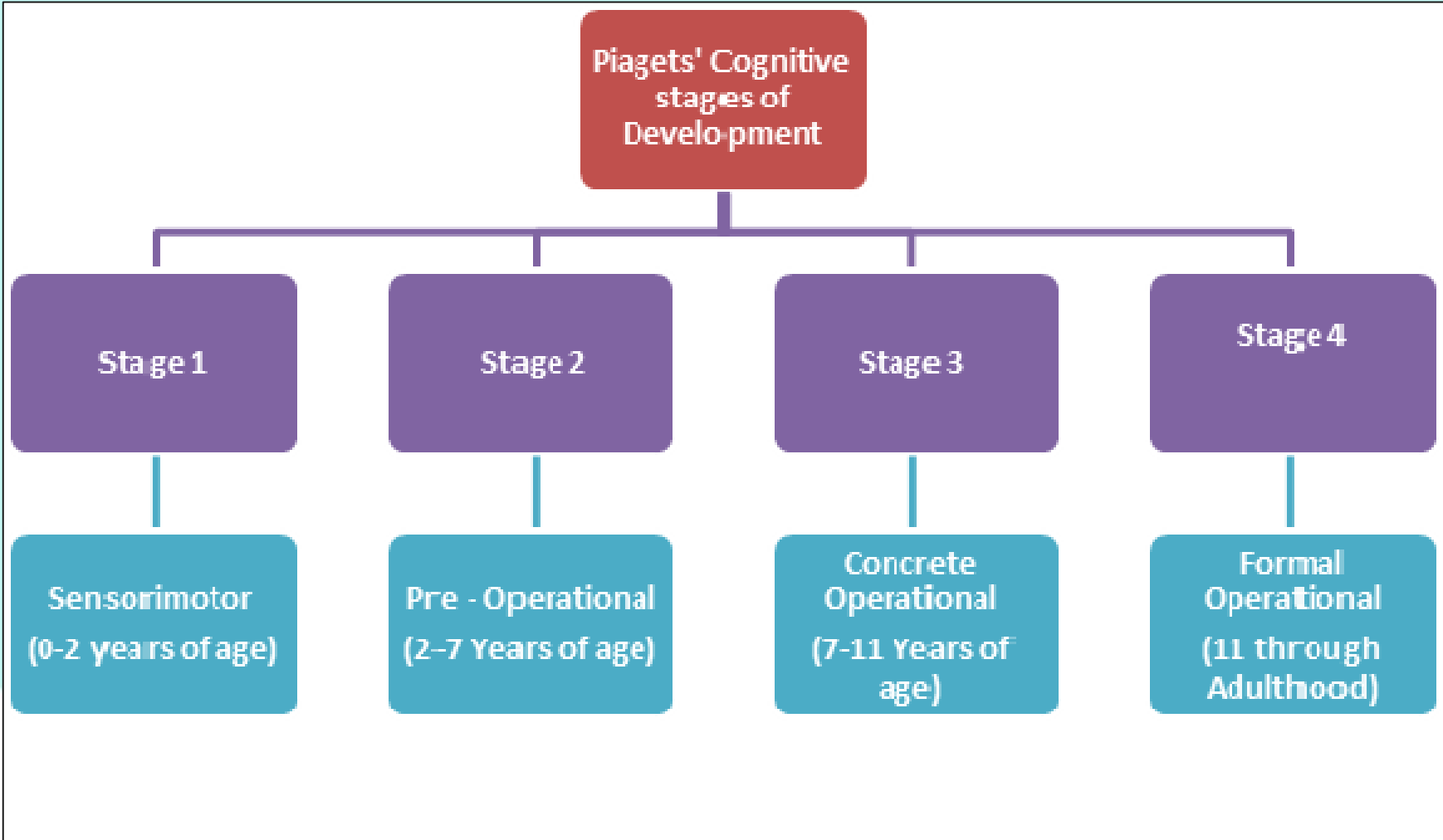
**Donna Eschenbaum RN,C-EN**



# Objectives:

- Discuss Piaget stages of cognitive development
- Describe the ABCs of pediatric assessment
- Review vital sign ranges for various ages of children
- Explore sick vs non sick criteria.
- Share some “tricks of the trade” in caring for pediatric patients





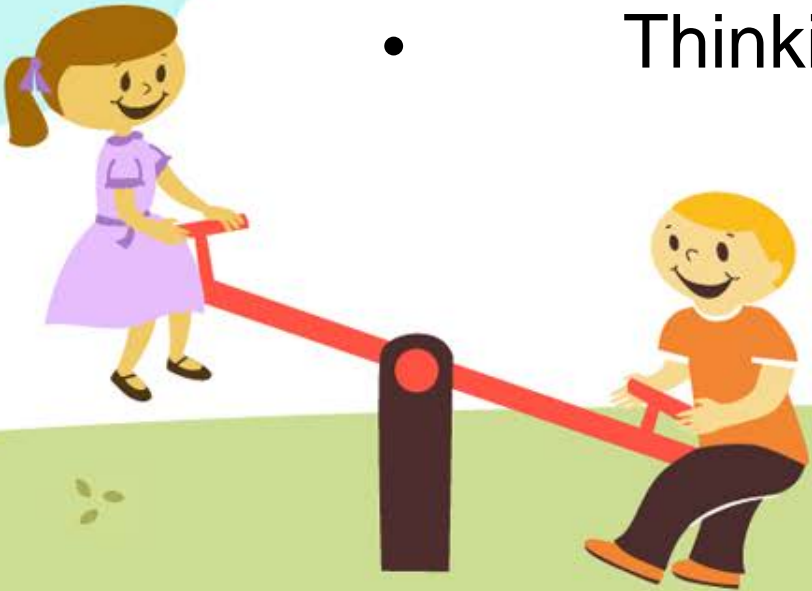
# Sensorimotor (birth-2 years)

- Only aware of what is immediately in front of them.
- Shake or throw things, put things in their mouths, and learn about the world through trial and error.
- Between 7 and 9 months, infants begin to realize that an object exists even if it can no longer be seen.
- Gradually increase physical mobility.
- Early language development.



# Preoperational (ages 2-7)

- Think about things symbolically.
- Language matures.
- Memory and imagination develop.
- Thinking is still not completely logical.



# Concrete Operational (ages 7-11)

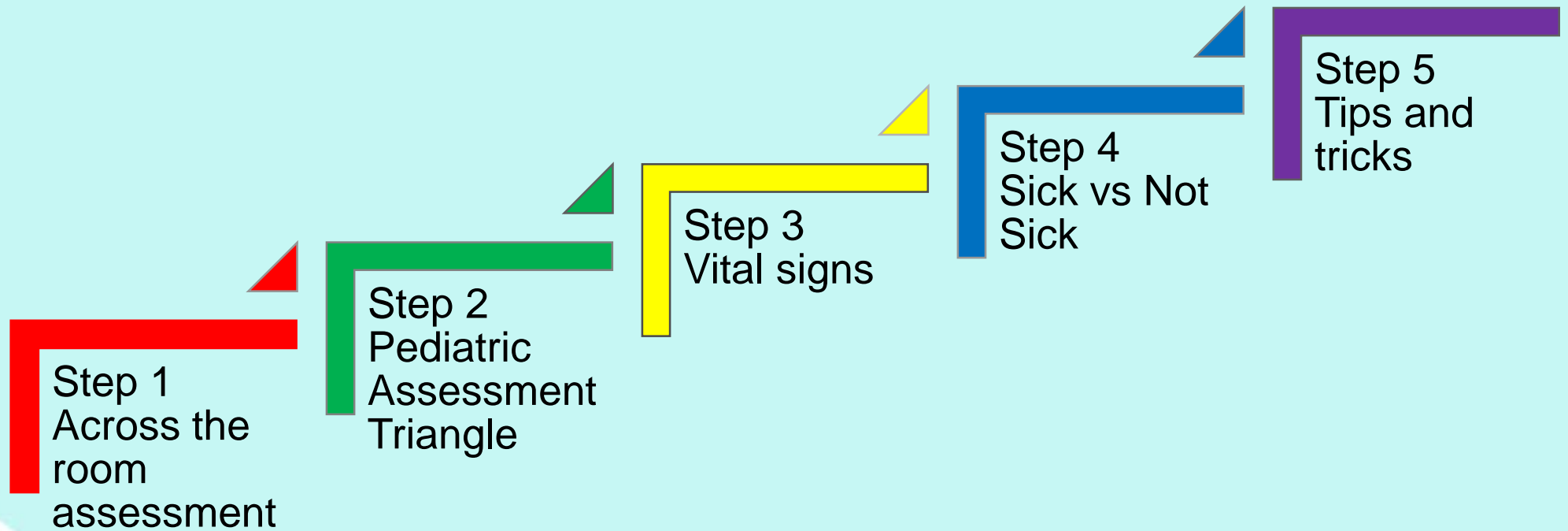
- Demonstrate logical, concrete reasoning.
- Thinking becomes less egocentric and they are increasingly aware of external events.
- Still can't think abstractly or hypothetically.



# Formal Operational (age 11-adulthood)

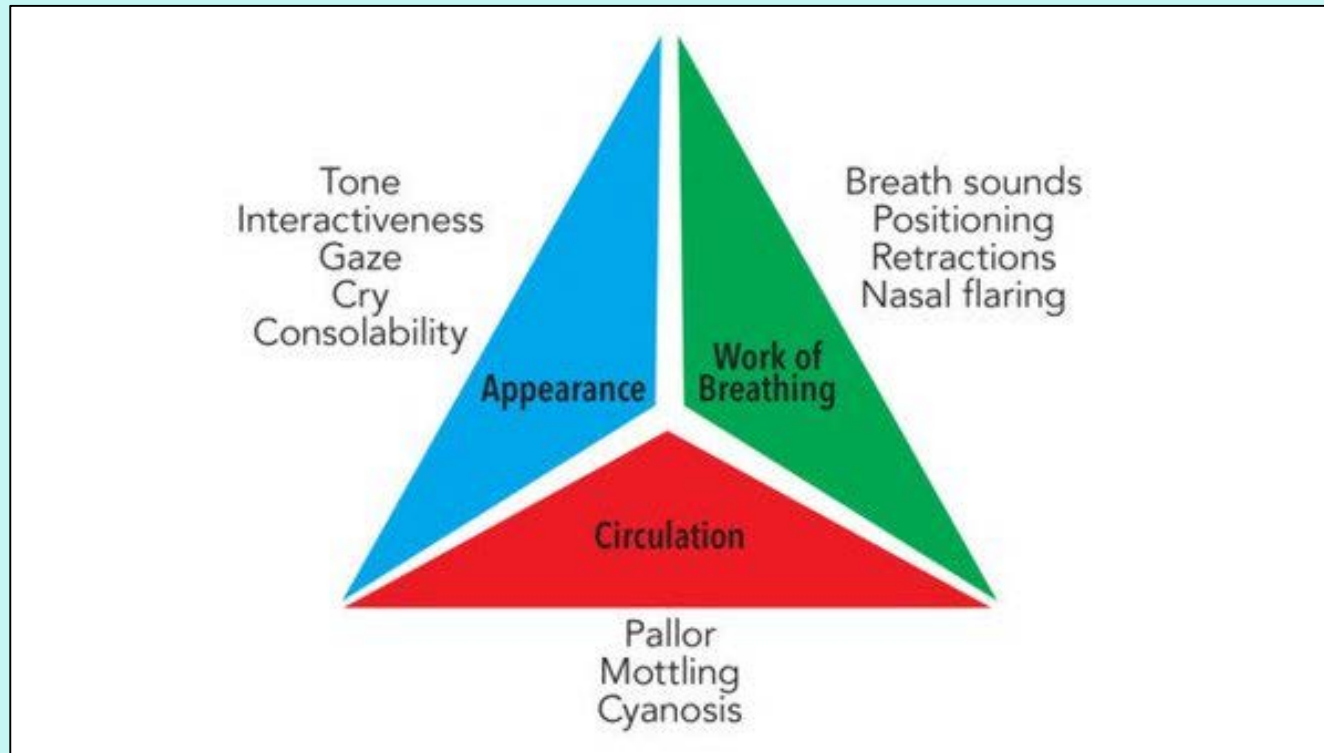
- Are able to logically use symbols related to abstract concepts, such as algebra and science.
- Can think about multiple variables in systematic ways, formulate hypotheses, and consider possibilities.
- Can ponder abstract relationships and concepts such as justice.

# Step...by....Step..





# Across the room assessment



# Appearance

- Mental status: alert, irritable, restless, combative or unresponsive
- Muscle tone: normal vs limp, moves spontaneously
- Interactiveness: recognize/interact with caregiver
- Consolability: able to be consoled or distracted
- Look or gaze: maintain visual contact with caregiver
- Speech or cry: strong cry, weak cry, or no cry at all



# Work of Breathing

- Respiratory effort: labored, fatigued
- Nasal flaring
- Retractions
- Accessory muscle use
- Abnormal airway sounds: grunting, snoring, stridor, or hoarseness
- Respiratory rate: too fast vs too slow
- Position of comfort: sitting up, head bobbing



# Work of Breathing

## Retraction Severity

- Mild retractions
  - Subcostal or Substernal
- Moderate retractions
  - Intercostal or Supraclavicular
- Severe retractions
  - Suprasternal or Sternal



## Chest retraction



# Additional Peds Respiratory Info.

- Croup: Upper Airway obstruction
  - Treat with racemic epi neb
- Wheezing: Lower Airway obstruction
  - Asthma, Bronchiolitis
- Infants are obligate nose breathers until 4-6 months
- Physical characteristics :
  - Small airway diameter
  - Large occiput
  - Large tongue



# Circulation to the Skin

- Color of skin, mucous membranes, or nail beds
- Cyanosis: peripheral or central
- Mottling
- Pulses: weak vs bounding
- Capillary refill: normal is 2 seconds or less
- Obvious signs of bleeding



# Assessment of Ethnic Skin

- Cyanosis: will be gray or whitish (not blueish)
- Redness: Palpate for warmth/heat
- Area may show hyper/hypo pigmentation, so touch is just as important as visual
- Blanching test will have limited value
- Use natural light if possible
- Pigmentation is least in the conjunctiva, sclera, oral mucosa, tongue, lips, nails, palms, & soles



# Pediatric Vital Signs

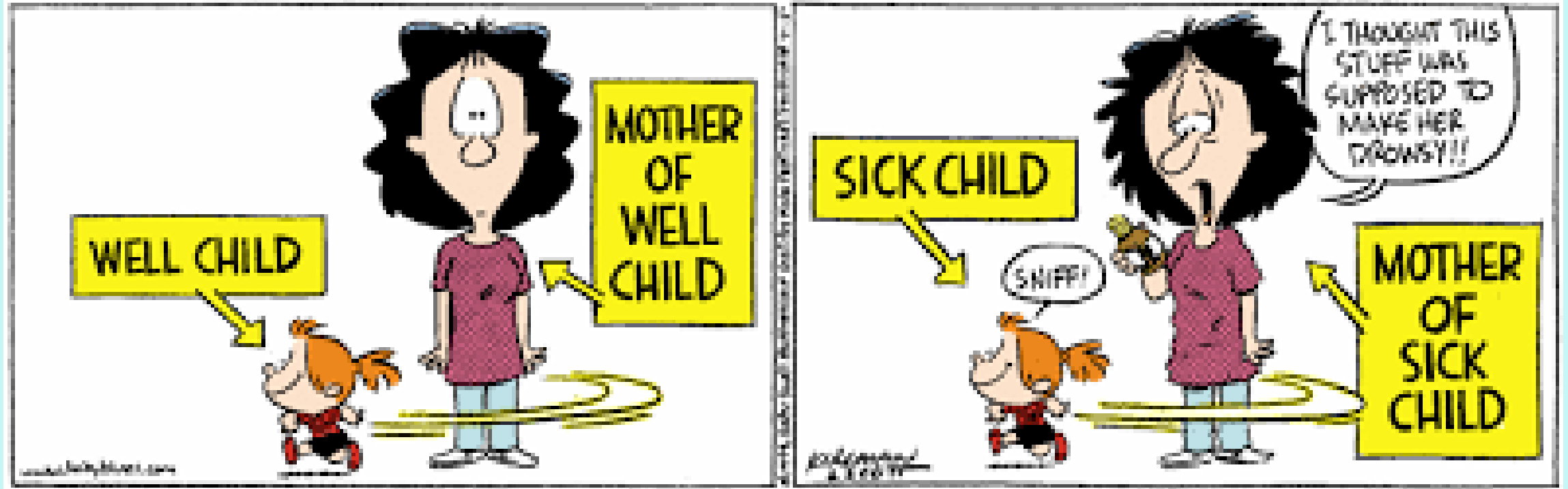
## General Vital Signs and Guidelines

Age	Heart Rate (beats/min)	Blood Pressure (mmHg)	Respiratory Rate (breaths/min)
Premature	110-170	SBP 55-75 DBP 35-45	40-70
0-3 months	110-160	SBP 65-85 DBP 45-55	35-55
3-6 months	110-160	SBP 70-90 DBP 50-65	30-45
6-12 months	90-160	SBP 80-100 DBP 55-65	22-38
1-3 years	80-150	SBP 90-105 DBP 55-70	22-30
3-6 years	70-120	SBP 95-110 DBP 60-75	20-24
6-12 years	60-110	SBP 100-120 DBP 60-75	16-22
> 12 years	60-100	SBP 110-135 DBP 65-85	12-20

**Normal temperature= 97.5-99**  
**Fever=Temperature >100.4 Rectally**



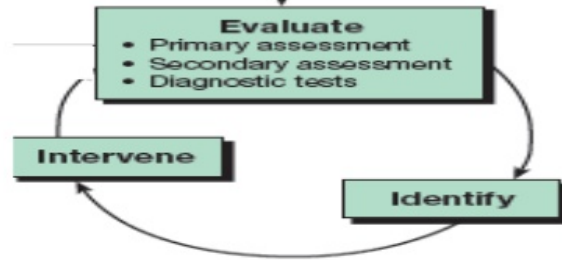




# Sick vs not sick?

## Evaluate-Identify-Intervene

- Use the evaluate-identify – intervene sequence.



- Always be alert to a life-threatening problem.
- If any point , identify a life-threatening problem, immediately activate emergency response.

- **Sick**=normal PAT
- **Sicker**=one area of PAT affected
- **Sickest**=2 or more areas of PAT affected



# Tips and Tricks of the Trade

- Blow out a pen light
- Keep caregiver close to comfort child.
- Check immunization status
- Talk to parents first and ignore the child, as they will become curious.
- Be mindful of developmental age, as child may take you literally.
  - ie:“I’m going to poke you.”

# Tips and Tricks of the Trade (cont)

- Approach older child slowly. Explain plan of care.
- Be honest...shots and IVs hurt.
- Show actions on parents first so they can see that the BP cuff/sat probe does not hurt.
- Involve child in their care. Let them pick which arm to place the BP cuff, offer choices of drink to take medications with (juice, Gatorade, or water).
- Watch blood sugars! (due to increased metabolic rate in kids)
- Reward for good behavior.

**Trust your instincts: If it seems off, it probably is.**



## PEDIATRIC DOSING CHART

Weight	Acetaminophen (Tylenol®) 160mg/5mL	Ibuprofen (Motrin®, Advil®) <small>NOT RECOMMENDED UNDER 6 MONTHS</small>		
		Infants' Drops 50mg/1.25mL	Suspension 100mg/5mL	Chewable Tablets 50mg
6-11 lbs.	¼ tsp.			
12-17 lbs.	½ tsp.	1.25 mL	½ tsp.	
18-23 lbs.	¾ tsp.	1.875 mL	¾ tsp.	
24-35 lbs.	1 tsp.		1 tsp.	2 tablets
36-47 lbs.	1½ tsp.		1½ tsp.	3 tablets
	every 4-6 hrs	every 6-8 hrs	every 6-8 hrs	every 6-8 hrs

**Medication dosing:  
ALWAYS WEIGH IN KG!**

- Acetaminophen      15mg/kg
- Ibuprofen            10mg/kg

**Competence breeds confidence. Confidence breeds competence.**



# Case Studies!!

- #1: 3 yr old:
  - Sent over from the clinic with being “ill” for 4 hrs.
  - Fever
  - Tachypnea
  - Shortness of breath, retractions, leaning forward to breath.
  - VS: 103.3-170-50-88% on RA. BP missed.
  - What would you do first?
- #2: 7 yr old
  - CC: Extreme fatigue
  - Dark circles under eyes
  - VSS
  - Undressed and placed into gown
  - Noted child looked quite thin
  - What questions would you ask?
  - What would you do first?



# More case studies!!

- #3: 15 yr old male was out hunting with his dad
- CC: nausea/vomiting

Got teenager undressed, pt obviously anorexic.

VS: 98.7-125-26-110/70-99% RA.

- What questions would you ask?
- Why?

- #4: 14 yr old male
- CC: Seizure, new onset
- Healthy, no injury, no preceding s/s
- Not postictal, completely A/O
- Mom/Dad at bedside, concerned as this is the youngest of their 6 kids.
- VSS. Labs drawn.
- What other questions would you ask?



# Summary:

- Across room assessment
- Consider developmental age
- VS
- Sick vs not sick
- Reassess, Reassess!
- Trust instincts





**BEING SICK IS JUST YOUR  
BODY'S WAY OF SAYING  
YOU ARE TOO  
AWESOME  
AND YOU  
NEED TO  
SLOW DOWN  
SO EVERYONE  
CAN CATCH UP.**



[DespicableMeMinions.org](http://DespicableMeMinions.org)

# References:

- 2011 American Heart Association Pediatric Advanced Life Support Provider Manual
- 2015 Emergency Nurses Association Trauma Nursing Core Course Provider Manual Seventh Edition
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- <https://www.healthline.com/health/what-is-normal-body-temperature#fever-symptoms>
- <https://www.verywellmind.com/piagets-stages-of-cognitive-development>

