PEDIATRICS GENERAL EXAMINATION

<u>1. General appearance (look):</u> assess weather the child is:

- Conscious. drowsy or comatose. Oriented or not. Comfortable, Calm, sick(ill), Crying or Irritable. Sleeping or sleepy. Sitting in the lab of his/her mother or playing.
- Lying position: frog-like(hypotonia), scissoring(hypertonia), on one side or supine(pain, trauma, fracture).
- Pale, Cyanosed, or Jaundiced.
- Well nourished, Malnourished, Dehydrated or edematous (periorbital puffines)
- Dysmorphic & abnormal features (Down syndrome, Cushing syndrome, chromosomal anomalies, cretinism, & facial palsy).
- Dyspneic, Sweaty, or Convulsive.
- Hand: Clubbing, Palmar erythema, Cyanosis, Splinter hemorrhage, & Sweating.

2. Vital signs

• <u>Arterial pulses:</u> The presence of main arterial pulses (radial, brachial, carotid, femoral, popliteal, posterior tibial & dorsalis pedis) should be noted & both sides compared. The following should be assessed:

a) Pulse rate: to assess tachycardia or less commonly bradycardia

*Average & upper limit Heart Rate at rest in pediatrics age groups (bpm)

Age	Average	Upper limit
0-6 months	140	160
6-12 months	130	150
1-2 years	110	130
2-6 years	100	120
6-10 years	95	110
10-14 years	85	100

(Some references said that the range of heart rate at neonatal period is 80-180 bpm)

- **b) Pulse rhythm:** regular or irregular (regularly or irregularly irregular)
- c) **Pulse character:** as collapsing pulse in aortic incompetence, PDA, fever, severe anemia & thyrotoxicosis)
- d) **Pulse volume:** low volume(dehydration, shock & aortic stenosis) or high volume (as causes of collapsing pulse).
- e) **Radio-femoral delay:** femoral pulsation is diminished & delayed in CoA, while normally it occurs a little earlier than radial pulsation.
- <u>**Respiratory rate:**</u> to assess tachypnea (pneumonia & CHF)

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Age	Upper limit
Less than 2 months	60
2-12 months	50
1-5 years	40
5-8 years	30
8-12 years	25
Adult	20

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- **Temperature:** to assess fever (infection) or hypothermia (cold injury in neonate)
- **Blood pressure:** to assess hypertension (renal or cardiac problems) or hypotension (dehydration or shock state)

3. Growth parameters & percentiles: They include:

- Weight: FTT (nutritional 80% or organic 20%) or Obesity (nutritional or familial)
- Height: Short stature (genetic, constitutional, endocrine or chronic diseases) or Tall stature (familial or klinefilter syndrome)
- Head circumference: Macrocephaly (Hydrocephalus or familial) or microcephaly (familial, chromosomal)

4. Regional examination:

Head & neck: Shape(frontal bossing or box-like in rickets), fontanelles(Anterior • fontanel (junction of coronal & sagittal sutures) : size = anteroposterior diameter+transverse diameter/2. Mean size in newborn=2.1 cm (larger in black infants) closes at 4-26 mo (median: 13.8 mo) & delayed closure in rickets, cretinism, hydrocephalus. Bulging fontanel in meningitis or fever or depressed fontanele in dehydration....Posterior fontanelle (junction of lambdoidal & sagittal sutures), mean size: 0.5-0.7 cm, closes by 2 months), sutures(premature closure in craniocynostosis), Eyes(epicanthic folds, ptosis, exopthalmos, squint, pupil size, cataract, brushfeild spot, conjunctivitis & subcojunctival hemorrhahe, sun-setting eye in hydrocephalus) Ears: Low-set ear (when targus of ears is below the level of outer canthus of eye as in mongolism & other syndromes), abnormal shape of the auricle in congenital renal anomalies.

Nose, Lips, Tongue, Palate, Gums, Buccal mucosa, Teeth & Throat

- Extremities : Upper & lower for any abnormality like congenital anomaly, deformity & fractures.
- Skin: Skin infection as boils & emptigo, rash, patechie(<1mm) & purpuric spot(2-5mm), insect bites, Elastisity (dehydration & malnutrition), edema(nephrotic syndrome, malnutrition & cirrhosis), Hair, Back(miningomylocele)