Vitals

- Vital Signs
  - Skin
  - Respirations/Breathing
  - Pulse
  - Pulse Oximetry
  - Blood Pressure
  - Eyes (Pupillary response)
- Skin
  - Skin color
    - Pale
    - Ashen
    - Cyanotic
    - Jaundiced
    - White
    - Gray
    - Flushed
  - Temperature
    - Hot
    - Cold
    - Cool
    - Clammy
  - Moisture
    - Dry skin is normal.
    - Skin that is wet, moist, or excessively dry and hot suggests a problem
  - Capillary refill
    - When squeezed, the nail bed should restore to its normal pink color in <2 sec.
    - Not reliable in Adult patients
- Respirations/Breathing
  - Respiratory rate
  - Clear and equal lung sounds
    - Mid-Clavicular Line
    - Mid Axillary Line
    - Posterior
    - Look For
      - Normal
      - Crowing
      - Rales
      - Snoring
      - Stridor
      - Rhonchi
      - Gurgling
      - Crackles
      - Wheezing
  - Rhythm
    - Regular
    - Irregular
  - Quality/character of breathing
    - Normal breathing is silent.
    - Is it:
      - Normal
      - Shallow
      - Noisy
      - Deep
      - Labored
  - Depth of breathing
    - Tidal Volume
      - Amount of air being exchanged
  - Normal breathing is an effortless process that does not affect speech, posture, or positioning. Look for
    - Nasal flaring
    - Unusual sounds
    - Seesaw breathing
    - Altered Mental Status
    - Tripod position
    - Skin/Pulse changes
    - Sniffing position

- Pulse
  - Rate
  - Quality
    - Full
    - Weak/Thready
      - Weak and difficult to feel
    - Bounding
      - Stronger than normal pulse
  - Pulse rhythm
    - Regular
    - Irregular (pulse that does not maintain a constant rate)
      - Regular Irregular
      - Irregular Irregular
      -
- Pulse Oximetry
  - Measures the oxygen saturation of Hemoglobin in the capillary beds
  - Assess and treat the Patient -not their pulse oximetry value.
  - Results:
    - 96–100% = normal
    - 91–95% = hypoxia
    - 86–90% = significant hypoxia
    - < 85% = severe hypoxia
- Blood Pressure
  - Systolic
    - During ventricular contraction
  - Diastolic
    - During ventricular relaxation
  - Auscultatory Gap
    - Interval of pressure where pulse sounds fade away and reappear at a lower pressure
  - Use other arm
    - If ports, central lines, mastectomy, and/or injury to the arm
  - To "take" BP by auscultation
    - Apply the cuff snugly, about 1" above the antecubital space.
    - Support the exposed arm at the level of the heart.
    - Palpate the brachial artery and place the stethoscope bell over it
    - Inflate to 30 mm Hg above the point at which you stop hearing pulse sounds
      - Protocol may allow inflation to pre-determined pressure of 160-180 mmHg
    - Slowly release pressure and note the systolic and diastolic pressures as pressure reduces
  - To "take" BP by palpation
    - Locate radial pulse
    - Inflate to above point pulse goes away
    - Deflate slowly
    - Systolic Pressure is when the pulse returns
    - Report as "systolic/P"
    - Typically ~10 mmHg lower than via auscultation.

- Eyes (Pupillary response)
  - The pupils are normally round and of approximately equal size.
  - In the absence of any light, the pupils will become fully relaxed and dilated.
  - To Check Pupils
    - Have the patient look at a distant object
    - Look at size, shape and symmetry of pupils.
    - Shine a light into each eye and observe constriction of pupil.
    - Flash a light on one pupil and watch it contract briskly.
    - Flash the light again and watch the opposite pupil constrict
      - Consensual reflex
    - Repeat this procedure on the opposite eye.
  - PEARRL is a useful assessment guide
    - Pupils
    - Equal
    - And
    - Round
    - Regular in size
    - React to Light
  - For proper assessment, move light in then out
    - DO NOT hold in place as pupil will not change.