Vital Signs:

A. Definition: measurements that provide critical info about a person's state of health

B. Purpose
   1. can identify existence of acute medical problem
   2. means of rapidly quantifying the magnitude of an illness and the body's reaction
   3. marker of chronic states

C. Include: Respiratory Rate, Temperature, Pulse, and Blood Pressure (Others: Responsiveness, Skin Characteristics (temperature, color, moisture) Pupil Reactivity, Blood Oxygen Saturation.

[Prior to measuring vital signs, the patient should have had the opportunity to sit for approximately five minutes so that the values are not affected by exertion. All measurements are made while seated.

D. Respiratory Rate
   1. Definition: (respirations) act of breathing; process through which oxygen is inhaled and carbon dioxide is exhaled
   2. Single Breath: inhaling and exhaling once
   3. Affecting Factors
      a. Rate = number per minute [values for adult]

Normal	Absence (apnea)	Rapid (tachypnea)	Slow (bradypnea)
12 - 20	0	28+	Below 10

      b. Characteristics

Rhythm	regular (consistent)	irregular (varied)		
Depth	normal	deep	shallow	
Ease	labored	difficult	painful	
Sounds	snoring	wheezing	crowing (birdlike)	gurgling

   4. Measurement: count for 30 seconds, and multiply by 2
   5. Instrument: eyes
   6. Purpose: suggests cardiopulmonary issues
   7. Factors Affecting Respiration include age, exercise, stress, fever, medications, disease

E. Temperature

1. Definition: measurement indicating metabolism of core visceral organs generation of heat; heat of body measured in degrees indicating the relationship between heat production and loss

2. Value (AMA established in 1968)

Normal	Range	Fluctuations occur
98.6 ° F	96.0 ° F	AM dips to 97.0 ° F (36.1 ° C)
37.0 ° C	100.8 ° F	PM spikes to 99.3 ° F (37.4 ° C)

3. Purpose
   a. indicates fever or hypothermia
   b. monitors effectiveness of fever-reducing medications
   c. determine ovulation
4. Measurement
   a. Instrument: Glass (mercury filled), Digital, Tympanic, Liquid Crystal: plastic strips or pacifiers
   b. Location: oral, rectal, axillary, tympanic
   c. Accuracy
      1) oral (most common)
         a) mouth must be closed around the sensor
         b) must be in correct position in mouth
         c) no food or drink for 10 min. prior
         d) no exercise for 60 min. prior
      2) rectal
         a) 1 degree must be subtracted after reading
         b) should not be painful
      3) axillary
         a) 1 degree must be added after reading
         b) used when breathing through nose is obstructed
         c) least accurate
      4) tympanic
         a) preferable because of convenience and speed
         b) technique is important
         c) measurement is from infrared radiation

Directions:
Record your respirations at the same time of day for ten days. Measure as close to the same time of day as possible for the ten days.

Record your body temperature at the same time of day for ten days. Measure as close to the same time of day as possible for the ten days.

Record some qualitative data as well.

At the end of the ten days, you will graph your results and analyze the data using the measurements and observed qualitative data.

Vital Signs Data				
Date:	Temperature Value	Health Characteristics	Respiration Rate	Respiration Characteristics

Baseline Temperature Chart

Date																														
102.0																														
101.8																														
101.6																														
101.4																														
101.2																														
101.0																														
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