Vital Signs (Temperature and Pulse Measurement)

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Vital Signs

- **Definition**: Procedure that takes the sign of basic physiology that includes temperature , pulse, respiration and blood pressure. If any abnormality occurs in the body, vital signs change immediately

- **Purpose:**

1. To assess the client's condition

2. To determine the baseline values for comparisons

3.To detect changes and abnormalities in the condition of client.

What are the Vital signs?

1.Body temperature

2.Pulse

3. Respiration

4. Blood pressure .

Times to Assess Vital Signs:

1. On admission.

2. When a client has a change in health status such as chest pain or faint.

3. Before and after surgery or an invasive procedure.

4. Before and after the administration of a medication .

5. Before and after any nursing intervention that could affect the vital signs

Equipment

1. Vital sign tray
2. Stethoscope
3. Sphygmomanometer
4. Thermometer
5. Second hand watch
7. Vital sign sheet
8. Cotton swab
9. Disposable gloves if available

Body Temperature

1-Body Temperature

Body temperature reflects the balance between the heat produced and the heat lost from the body

Factors that affect body temperature are the following:

1. Age.
2. Diurnal variations.
3. Exercise.
4. Hormones.
5. Stress.
6. Environment.

The normal range for Body Temperature in adults between (36°C and 37.5°C) .

❖Pyrexia:- is a body temperature above the normal range (38°C – 40.9°).

❖Hyperpyrexia:- A very high fever, such as 41°C and more.

❖Hypothermia is a body temperature below (36°C)

❖**The most common sites for measuring body temperature**:-

1 -Oral. (2-3) minute.

2. Rectal. (2) minute (-0.5)

3. Axillary. (5-6) minute (+0.5)

4. Skin/temporal artery.

5. Tympanic.

❖**Normal temperature**

1. Oral ; 37 c

2. Axillary ; 36.5 c

3. Rectal ; 37.6 c

Types of Thermometer

1- Glass mercury thermometer :- (Orally)

2- Electronic thermometer:- (Axillary)

3 - Tympanic Thermometer

4 - Temporal artery thermometer

5 - A temperature sensitive skin tape

Contraindication for oral temperature

1-Child under age 3 years

2. Old age people

3. Unconscious patient

4. Mental ill patient

5. Oral surgery, lesion or ulcer

6. Nasal obstruction

7. Patient has cough

8. Patient has nasogastric (NG) Tub

Contraindication for rectal temp

1- Rectal surgery

2- Diarrhea

3- Rectal disorder (bleeding)

Procedure to checking temperature:

Wash your hands.

2. Prepare all required equipment’s.

3. Introduce your self and explain procedure to client.

4. Provide for client privacy.

5. Place the client in the appropriate position

6. Place the thermometer.

7. Wait the appropriate amount of time.

8. Remove the thermometer .

9. Read the temperature and record it on your worksheet.

2**- Pulse**

❖ The pulse is a wave of blood created by contraction of the left ventricle of the heart. number of times the heart beats in 1 minute.

❖ The rate of the pulse is expressed in beats per minute (beats/min)

Factors Affecting the Pulse

1- Age

2- Sex.

3- Exercise

4- Fever

5- Medications.

6- Hypovolemia/dehydration.

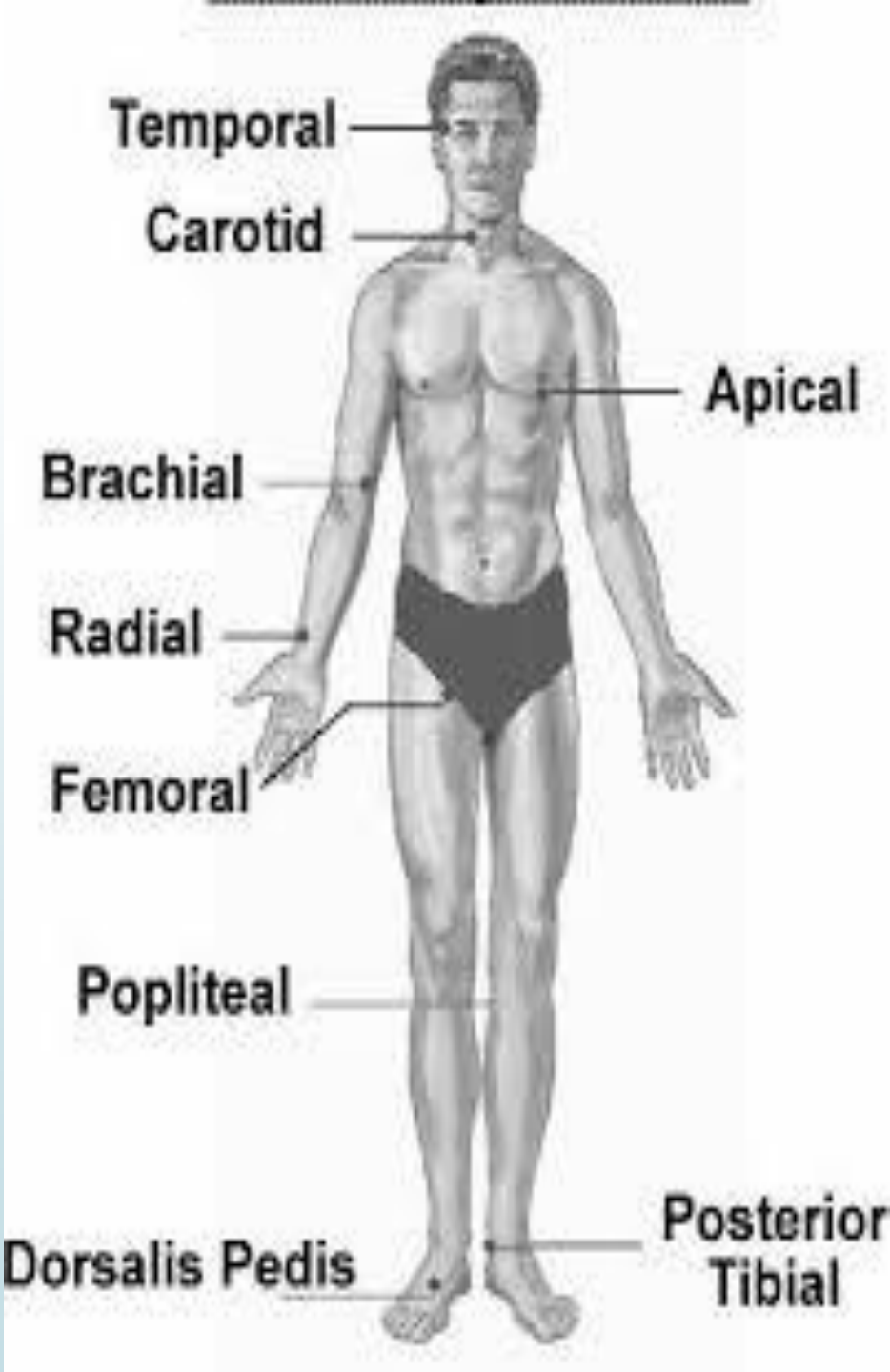
7- Stress

8- Position and sleep.

9- Pathology

Pulse Sites :

1. Radial
2. Temporal
3. Carotid
4. Apical (central)
5. Brachial
6. Femoral
7. Popliteal
8. Dorsalis Pedi’s
9. Posterior tibial



Pulse Assessment

1- Rate

Normal (60 ---100)
beat/ Minute

2- rhythm

* Regular
Irregular

3- Volume -Strength

* Bounding or strong pulse
* Normal pulse
* weak or threatening pulse
* Absent of pulse

Age span	Heart rate (bpm)
Less than 1 month	120–160
1–12 months	80–140
12 months – 2 years	80–130
2–6 years	75–120
6–12 years	75–110
More than 12 years	60–100

Variances in Pulse Rate

- **Tachycardia:** pulse rate more than 100 bpm (beat per minuet)
- **Bradycardia**: pulse rate less than 60 bpm
- **Dysrhythmia** (arrhythmia): irregular rhythm

Procedure to checking pulse rate:

1-Wash your hands.

2. Prepare all required equipment’s.

3. Introduce your self and explain procedure to client.

4. Provide for client privacy.

5. Select the pulse point. Normally, the radial pulse is taken.

6. Assist the client to a comfortable resting position.

7. Assess the pulse rhythm and volume for 1 minute.

8. Document the pulse rate, rhythm, and volume and your actions in the client record.


Thank
you!