

6-July-2020

GNM 1st

Fund Unit 4
Assignment

(Fundamentals of Nursing)

(Physiological Assessment)

Unit (4)

Vital signs

Vital signs are the indicators of the body's physiologic status & response to physical environment & psychologic stressors.

The vital or cardinal signs are

→ Body temperature

→ pulse

→ Respiration

→ Blood pressure

→ pain

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Purposes of assessing vital signs:-

- o To determine change in client's status.
- o To Recognise variation from Normal & its significance.
- o To Help physician to prescribe Right treatment.

Body Temperature

- o Temperature is measurement of Heat expressed in Degrees

Physiology :-

Body temperature is of two types :- Core temperature

and the Surface temperature core temp is the Most Important including deep tissues such as temperature of cranial, thoracic & abdominal cavities.

→ Normal Body temperature Range is $36^{\circ} - 38^{\circ}\text{C}$

→ Healthy young adult, average oral temp. is 37°C (98.6°K)

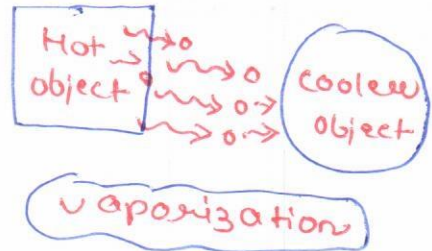
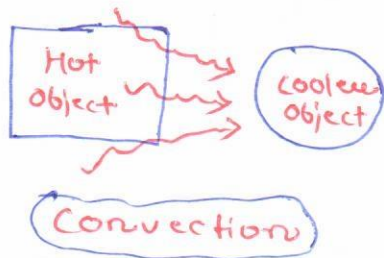
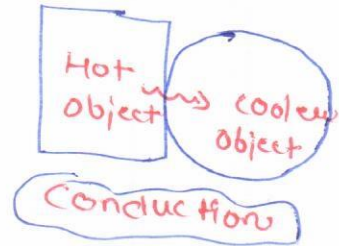
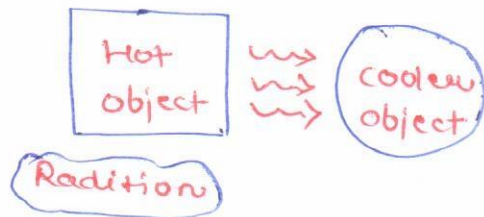
Heat production:-

• Heat is generated in the body's cells through food metabolism.

→ when body heat rises, Hypothalamus transmits impulse to reduce the body heat by triggering perspiring, dilating blood vessels & inhibit of heat production.

Heat loss through :-

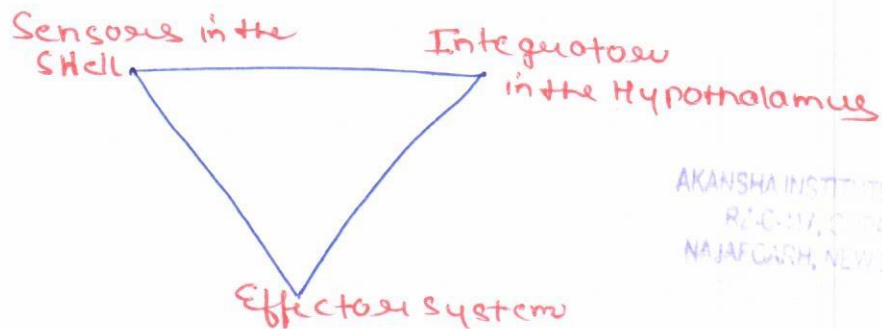
- ① Radiation
- ② Conduction
- ③ Convection
- ④ Vaporization



Heat is transferred By Radiation, conduction, convection & vaporization.

Regulation of body temperature

The process of Regulating the balance b/w heat loss & Heat production is known as thermoregulation



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- * Sensors in the Shell
- * Integration in the Hypothalamus

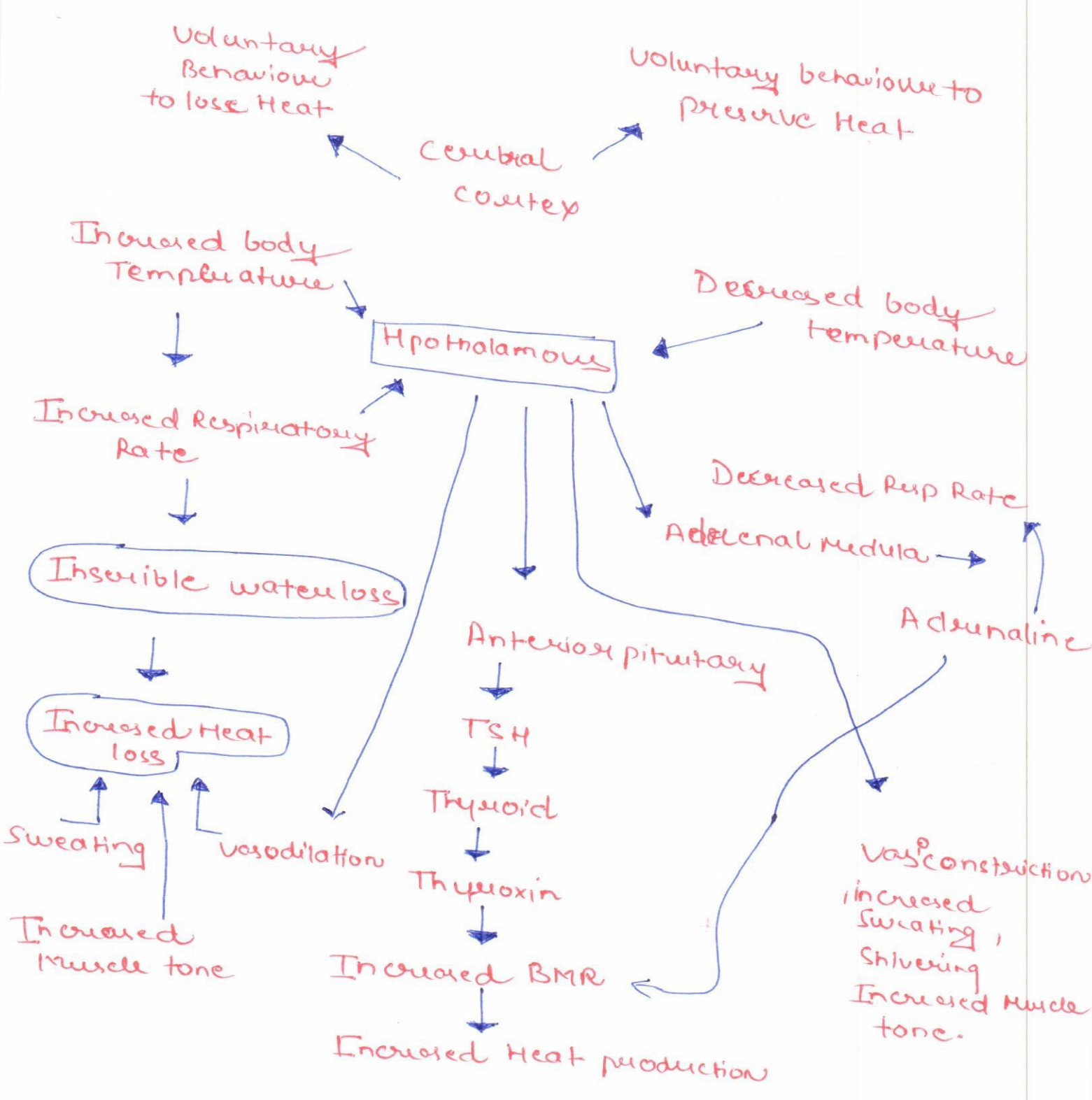
* Effector system that adjusts heat production & heat loss.

During cold or winter seasons, skin becomes cool, then these physiologic processes start to maintain thermoregulation. These processes are:-

- ① Shivering raises the heat production.
- ② Sweating is controlled in order to decrease heat loss.
- ③ Vasoconstriction i.e. narrowing of blood vessels. It decreases heat loss.

Factors Affecting Body Temperature:-

- ① Age
- ② Exercise
- ③ Hormones
- ④ Stress level
- ⑤ Circadian Rhythm
- ⑥ Environment.



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Thermo Regulation By Hypothalamus

Hormones

Decrease in Progesterone



Decreased body temperature
During ovulation



Increased Progesterone



Increased Body Temperature

Exercise

Exercise



↑ Muscle Activity



Consumption of CHO &
Fats increase Body
temperature



↑ Heat Production



↑ Increased BMR

Nurses Role in Monitoring Temperature

- Selection of site
- Frequency of Monitoring
- Detect the client who need more frequent monitoring.
- Ensure accuracy of Right technique For Monitoring
- Documenting & Reporting to other Health team members.

Site For Monitoring temperature:-

→ site is the body area which indicates core & surface temperature reading more accurately

Site	Placement	use
Oral	sublingual area of Mouth	<ul style="list-style-type: none"> • accurate, consistent Reading • easiness to place thermometer. • contraindicated :- unconscious children, uncooperative client, oral surgery

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② Rectum	1/2 inch in infant 1 inch in adults (into anus)	<ul style="list-style-type: none"> o Gives Reading higher than oral Route (1° F) 0.6° C o Safe For comatose, disoriented, infant child. o Disadvantage - Socially, psychologically uncomfortable
③ Axilla	under arm	<ul style="list-style-type: none"> o infant, children o Used if oral or rectal sites are contraindicated

Electronic thermometer / digital thermometer is also available for monitoring temperature

Signs & symptoms of altered temperature

Dry, Pale, diaphoretic skin
 Rapid, Shallow breath
 Malaise
 Tachycardia
 Complaint of thirst,
 Shivering, chills,
 'gooseflesh'.

Collect the data for selecting site to monitor temperature.

- age of client
- Drinking, eating
- Smoking
- infected oral cavity
- Hemorrhoids.

Advantages & Disadvantages of Temperature taken orally:-

Advantages:-

- o There is good supply of Blood under tongue, so correct temperature is Reco-Rded.
- o There are less chances of Bulb coming in contact with air.
- Thermometer can be held easily under tongue.
- No privacy is Needed.

Disadvantages:-

- o The Nurse May Not know whether the bulb of thermometer is in place.
- o Instead of keeping it in touch in under-surface of tongue, the patient can keep it in air in the Mouth cavity. Thus, there is possibility of Recording False-temperature.
- o If the thermometers are Not adequately Disinfected, there is always the possi-bility of cross Infection.
- o The patient will get tired up if the thermometer is kept Foxe along time.