

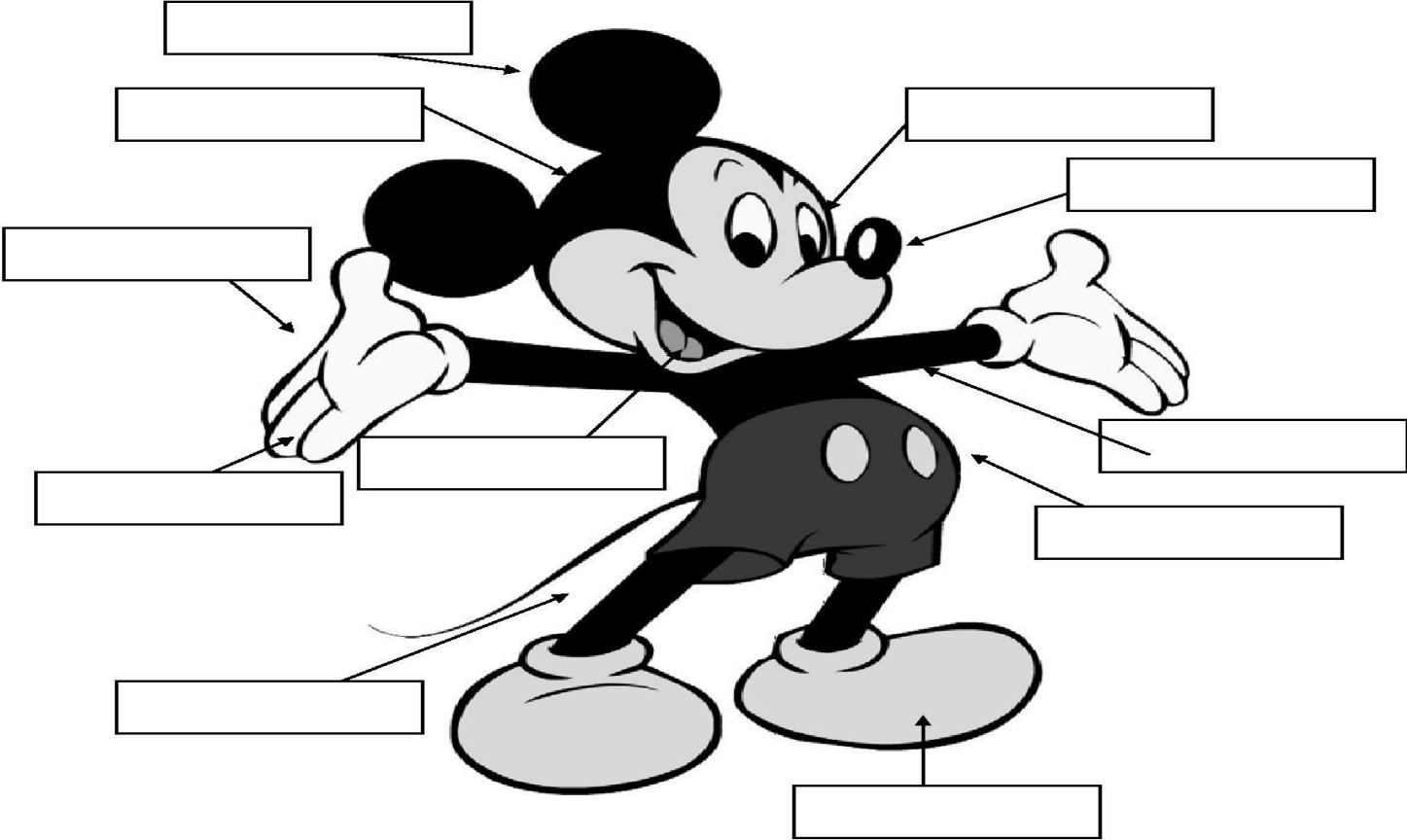
Physiological basis of
thermoregulation.
Thermoregulatory mechanism.

Gulnaz Sovetskizi

gsovetkizi@gmail.com

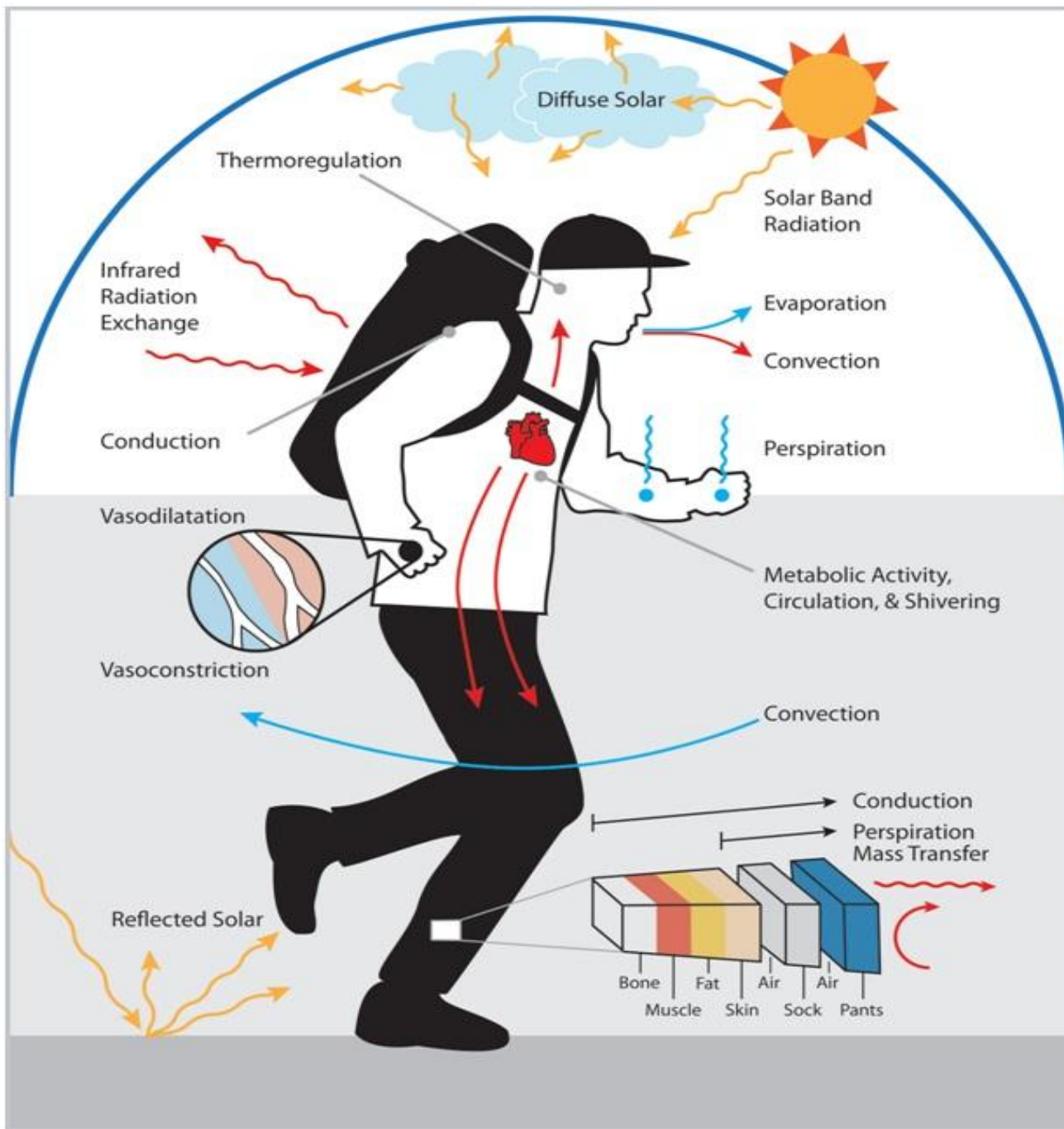
87026511049

Mickey Mouse's body



The body temperature remains relatively constant due to a complex system of thermoregulation. Thermoregulation complex functional system, which consists of:

- Peripheral thermal receptors (skin, blood vessels)
- Central thermoreceptors (hypothalamus)
- Center for thermoregulation (in the brain)
- Efferent pathways.
- This system controls the level of heat production and heat loss.

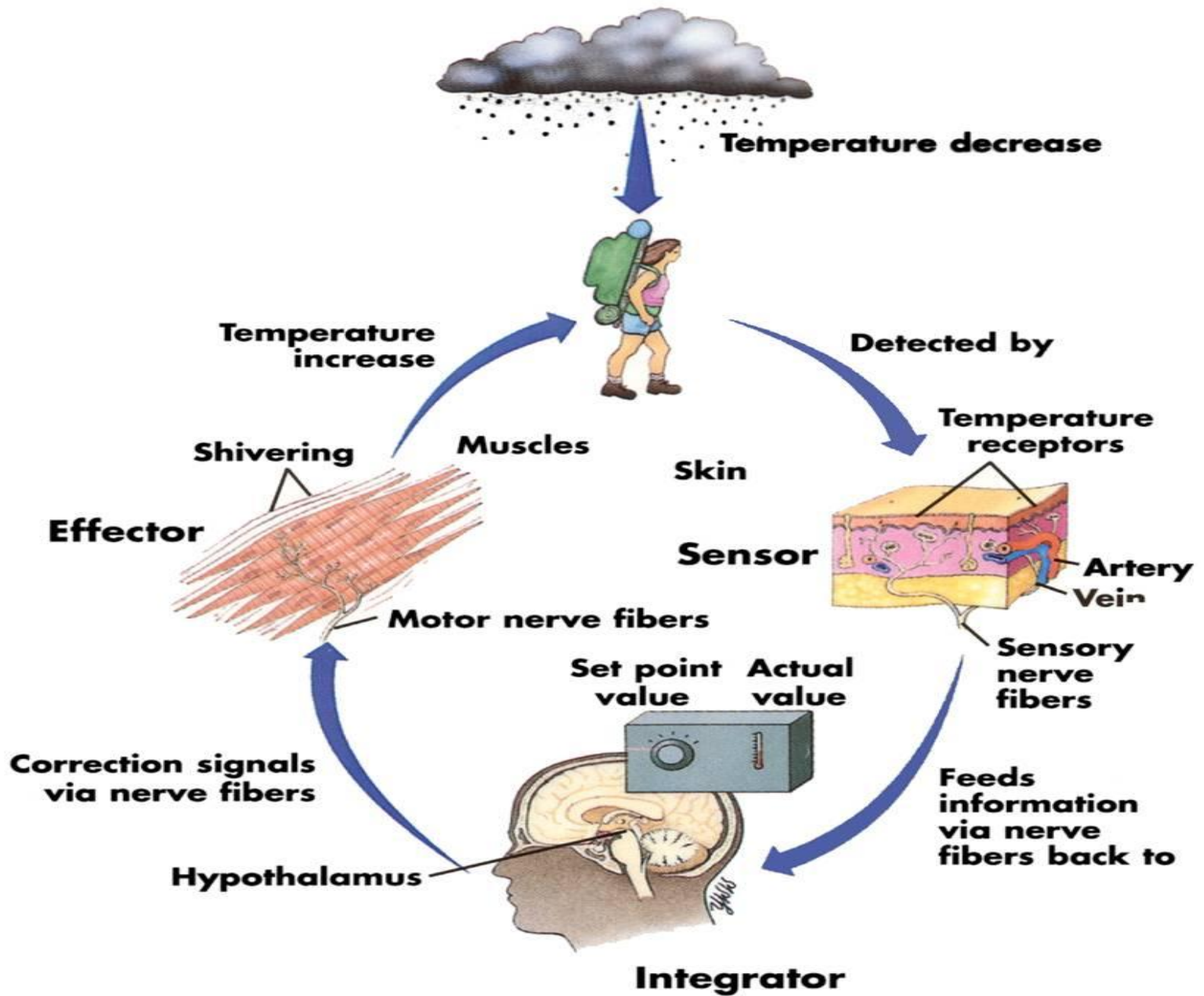


Heat generation occurs as a result of energy release in the body produced during the biological oxidation of nutrients. Ways of heat:

1. The muscles 60%
2. 30% of the liver
3. Other organs 10%

Heat transfer takes place in the following organs:

- 1. The skin (sweating) - 80%
- 2. Lung (wind) -13%
- 3. The stomach (digestive juices) -5%
- 4. kidneys and the large intestine (the allocation of urine and excrement) - 2%

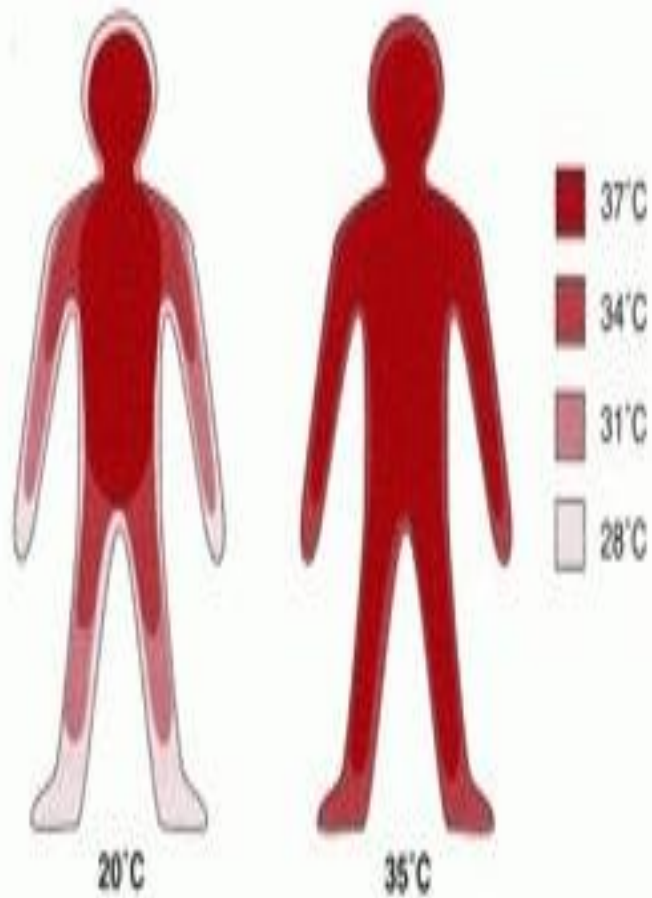


Features care in different periods of fever.

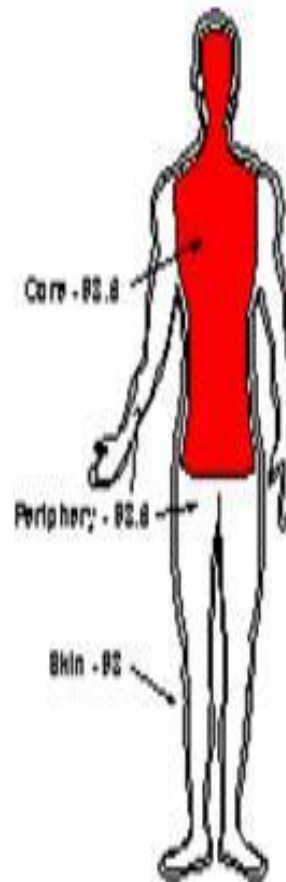
- **I period** - the temperature rise stage. Duration from several hours to several days.
 - Clinic: fever, pallor and cyanosis of the extremities, joint, headaches, malaise, weakness, breathing quickens and PS blood pressure often remains normal.

Usage: 1. The patient is put to bed.
2. Heat shelter, warm heaters.
3. Hot drink.
4. Observation: - breathing, heart rate,
blood pressure, physiological functions.

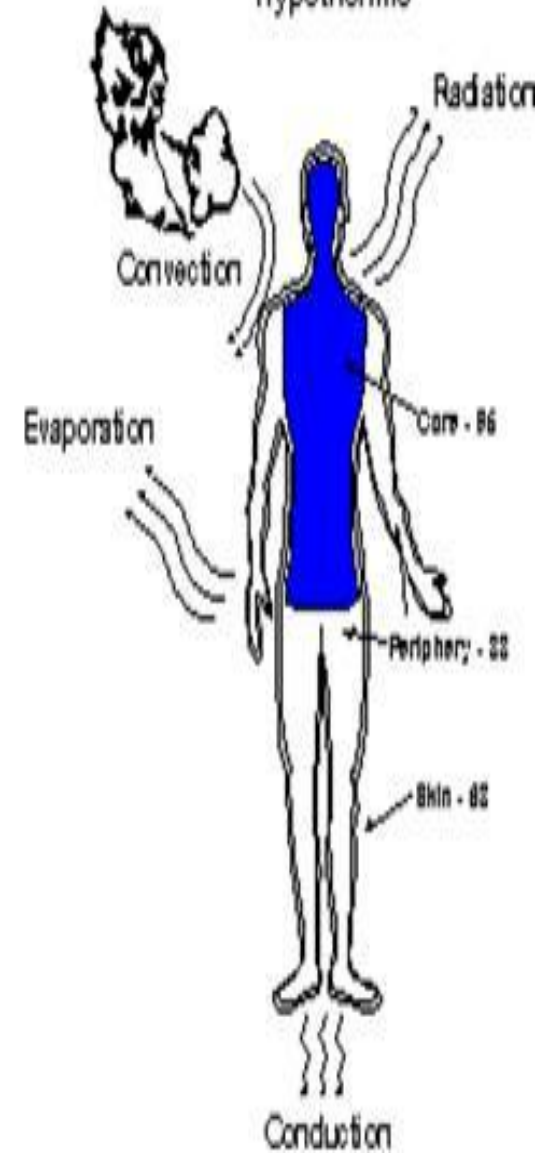
Thermoregulation



Normothermic



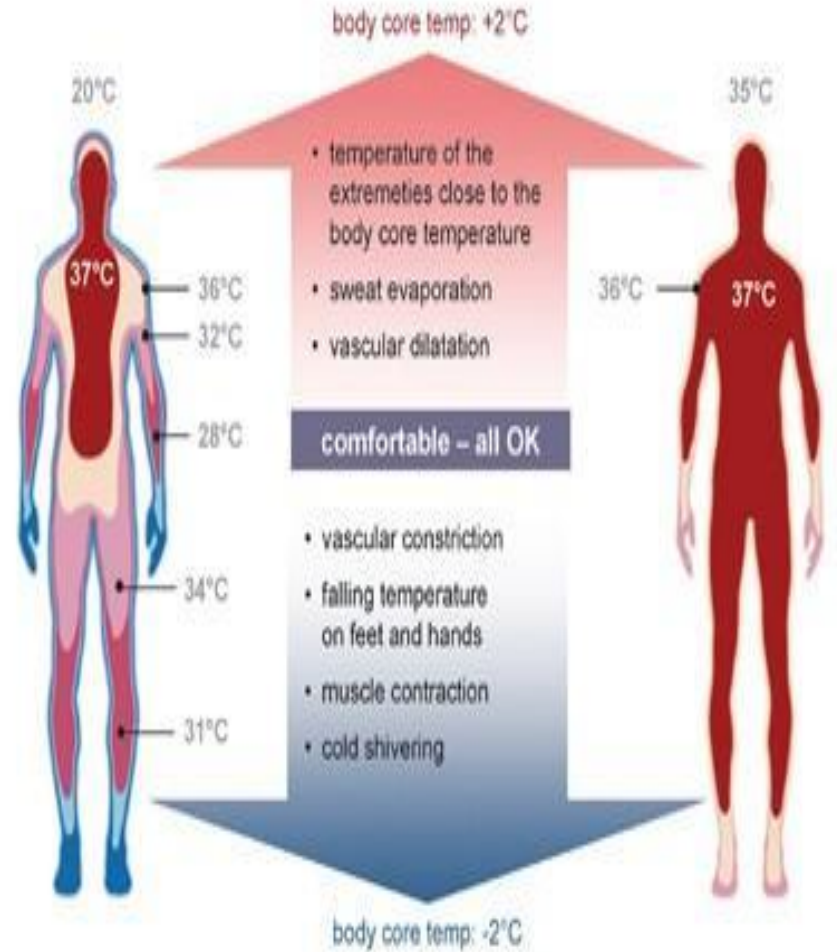
Hypothermic



- **II period of fever** - high temperature relatively constant. The duration from a few hours to several days.
- **Clinic:** is replaced by chills fever, general weakness, feeling of fever, dry mouth, cracked lips, change (breach) CAS functions, respiratory system (tachycardia, tachypnea). In some cases it is necessary to take emergency measures



www.shutterstock.com - 95926168



- Promptly inform the doctor about the deterioration of the doctor decides on issues of drug therapy (cardiac glycosides). Violation of appetite etc. reduced work function of the digestive glands. There may be a central nervous system disorder (impaired consciousness) at high temperature delusions, hallucinations (children convulsions) severe agitation or disturbance of consciousness.

Care in the II period of fever:

- 1. To establish an individual post. Strict bed rest.
- 2. If the patient is delirious or agitated, raise the handrails or pull the net.
- 3. Ice packs to hang over his head and put on the great vessels.
- 4. Excessive drinking fortified and mineralized (cool) in small sips.
- 5. Feed 6-7 times. Diet number 13.

- 6. Oral Care. Lubrication crack baby cream.
- 7. Skin Care at temperature rubdown fragrant vinegar or alcohol solution.
- 8. Carry out activities to prevent bedsores.
- 9. Prevention of constipation.
- 10. Monitoring of urination, defecation. Physiological poisoning in bed, care for the sexual organs.
- 11. Monitoring the temperature, PS, RR. In violation of the rhythm of respiration inform your doctor.
- 12. Ensure clean bed clothes, promptly changed if necessary.
- 13. At the individual post have kits to provide first aid: syringes, systems, sterile cotton balls, alcohol for injection by a doctor.

- III period of fever - reducing body temperature. A slow decrease in temperature to normal (for several days) is called the lytic reduction - (lysis). The rapid drop in temperature from high to normal (within 5-6 hours.) - Called the critical decline (the crisis).

- **Clinic** critical decrease in body temperature: cold clammy sweat, significant increase of skin blood vessels leading to cardiovascular changes, so it is very important to monitor the status of the CAS (BP, PS). May develop collapse - acute circulatory failure, drop in blood pressure, severe weakness, profuse sweating, paleness, cyanosis of the skin and lips. Pulse quickens becomes. Sometimes blood pressure is reduced to 80/50 mm Hg

- Actions m / s:
- 1. Measure the blood pressure.
- 2. Urgent call the doctor if the patient needs extra help.
- 3. Remove pillows, a foot end lift.
- 4. Apply a heating pad to the feet.
- 5. drink hot strong tea.
- 6. change the bed and undergarment as needed.
- 7. Under the guidance of a doctor with a decrease in pressure medicines that increase blood pressure (adrenaline, phenylephrine, caffeine)
- 8. Continue to monitor the indicators of cardiovascular (blood pressure, PS) breath, urine output.
- 9. Carry out feeding and personal hygiene event in bed.
- 10. Provide fresh air, it does not allow drafts.

When lytic (gradual) decrease in body temperature:

1. to continue monitoring the indicators of cardiovascular, respiratory, urinary output.
2. continue the implementation of hygiene measures.
3. gradually expand the impellent activity.