

HEAT REGULATION OF THE HUMAN BODY

1. Body places a high priority on maintenance of *core temperature* within 2-3 degrees of 98.6 deg. F.
2. All temperature regulation (hot and cold) is controlled by the nervous system.

“Thermostat” of the body is in the brain stem, called the Heat Control Centers.

Receives information from heat-sensitive nerves throughout the body and sends instructions to the heat regulation mechanisms.

3. THE TWO MAJOR HEAT REGULATION MECHANISMS:

I

Blood picks up heat from body tissue, and carries it in the blood stream. Muscles that control diameter of small vessels near skin surface (vasoconstrictors) relax, to allow more blood near the surface of the skin.

II

Sweat glands secrete sweat (mixture of water, oils, and minerals) onto the surface of skin. The skin is cooled as the sweat evaporates.

The two mechanisms both work independently, and also compliment each other.