

Human body is sensitive to many of the elements that go to make up the climate of a place. This sensitivity and responsiveness arise from the need to maintain homeostasis. Under conditions of extreme heat or cold the heat regulatory system acts to maintain the body temperature steady within relatively narrow limits (homeothermy). The maintenance ~~is~~ would be due to rate of metabolism, avenues of heat loss, heat conservation, respiration, blood circulation, fluid and electrolyte transport, and exchange.

Similarly, individual exposed to high altitude must adjust through physiological, chemical and morphological mechanisms such as increase in ventilation, increase in the oxygen-carrying capacity of blood resulting from an increased concentration of red blood cells, and increased ability of tissues to utilize oxygen at low pressure.

- Failure to activate the functional adaptive processes may result in failure to restore homeostasis, which in turn results in maladaptation of the organism and eventual incapacity of the individual.

HOMEOSTASIS is a part and function of survival. It is a function of a dynamic interaction of feedback mechanism whereby a given stimulus elicits a response aimed at restoring the original equilibrium. When a primary stress disturbs the homeostasis that exists between the organism and the environment, to function normally the organism must resort either to biological or cultural technological responses.

- Through the biological responses, the organism overcomes the environmental stress and its physiological activities occur either at the same level as before the stress or take place at another level.

Humans through cultural and technological adaptation may modify and decrease the nature of the environmental stresses so that a new microenvironment is created to which the organism does not need to make any physiological response

### HOMEOSTASIS AND TEMPERATURE CONTROL

