

Lecture One: Homeostasis

Homeostasis:

- The ability of the body to maintain relatively stable internal conditions even though the outside world changes continuously.



- Control Systems:
 - Can be either intracellular or organ
 - Intracellular are involved in functions of protein breakdown, energy production and nutrient balance
 - Organ control systems are larger → life, death functions such as cardiopulmonary
- Negative Feedback Mechanisms:
 - The variable is changed in the opposite direction to the initial change/response
 - Temperature and blood glucose regulation are both negative feedback mechanisms
 - Can be controlled by nervous or endocrine system
 - EG: Temperature Control:
 1. The Variable: body temperature
 2. Receptor: senses around the body send messages via nerve impulses
 3. Control Centre: Hypothalamus sends direct response to promote heat loss

