

Homeostasis

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- Homeostasis is the maintenance of a constant internal environment.
 - The nervous system and hormones are responsible for this.
 - Is the regulation of conditions in the body such as temperature, water content, and carbon dioxide levels.
 - Example: concentration of carbon dioxide in the blood being carefully controlled

Internal conditions that are regulated:

-Body temperature

- Controlled to maintain the temperature at which the body's enzyme work best
 - 37°C.

-Blood sugar level

- Controlled to provide cells with a constant supply of glucose for respiration.
 - It's controlled by the release and storage of glucose
 - which is in turn controlled by insulin.

-Water content

- Controlled to protect cells by stopping too much water from entering or leaving them
 - Water content is controlled by water loss from:
 - The lungs - when we exhale
 - The skin - by sweating
 - The body - in urine produced by the kidneys

-Negative feedback

- Homeostatic control is achieved using negative feedback mechanisms:
 - If the level of something rises, control system reduces it again
 - If the level of something falls, the control system raises it again.