

Biology online

Answer to all your Biology Questions

Homeostasis

Definition

noun

(Science: Biology)

(1) The tendency of an [organism](#) or a [cell](#) to regulate its [internal conditions](#), usually by a system of [feedback controls](#), so as to stabilize [health](#) and functioning, regardless of the outside changing [conditions](#)

(2) The ability of the [body](#) or a [cell](#) to seek and maintain a [condition](#) of [equilibrium](#) or [stability](#) within its [internal environment](#) when dealing with [external](#) changes

Supplement

In humans, homeostasis happens when the [body](#) regulates body [temperature](#) in an effort to maintain an [internal temperature](#) around 98.6 degrees Fahrenheit. For example, we [sweat](#) to cool off during the hot summer days, and we shiver to produce [heat](#) during the cold winter [season](#).

Word origin: from the Greek: *homeo*, meaning unchanging + *stasis*, meaning standing.

Related forms: homeostatic (*adjective*).

Homeostasis

From Wikipedia, the free encyclopedia

Homeostasis — [also spelled homoeostasis or homœostasis](#) — (from [Greek](#): ὅμοιος, "hómoios", "similar",^[1] and στάσις, *stásis*, "standing still"^[2]) is the property of a system that regulates its internal environment and tends to maintain a stable, relatively constant condition of properties such as temperature or [pH](#). It can be either an [open](#) or [closed](#) system. In simple terms, it is a process in which the body's internal environment is kept stable, despite changes in external conditions. The concept was described by [Claude Bernard](#) and the term was later coined by [Walter Bradford Cannon](#) in 1926,^[3] 1929^[4] and 1932.^{[5][6]}

Typically used to refer to a living [organism](#), the concept of homeostasis was preceded by that of [milieu intérieur](#), defined by [Claude Bernard](#) and published in 1865. Multiple dynamic equilibrium adjustment and regulation mechanisms make homeostasis possible.

Homeostasis needs to be distinguished from simple [dynamic equilibriums](#), which are not regulated, and [steady states](#), which may be stable but sensitive to perturbations.