

Homeostasis

Homeostasis - Regulation of our internal environment - such as temperature or water...

Body Temperature - Thermoregulation

If too hot:

- we sweat - our body heats up the water, evaporating it and in doing so transfers energy to the surroundings.
COOLS YOU DOWN!
- flushed (red cheeks) - Blood vessels near the surface of our skin get wider (dilated) releasing heat. This is known as vasodilation.
- Erector muscles in skin relax and allow hairs to lay flat.

If too cold:

- Erector muscles in skin contract - causing hair to stand on end - to attempt to trap an insulating layer of air to warm you up.
- Very little sweat!
- shivering - our bodies attempt to generate heat.
- Blood vessels near skin surface constrict (vasoconstriction) this means less blood flow near surface - so less heat transferred to surroundings.

Body temp is regulated by a part of the brain called the Hypothalamus.

our body needs to be kept @ approx 37°C . This is because enzymes in our body work best at this temperature.

The hypothalamus has receptors for blood temp - it acts just like a thermostat in your home!

our body also regulates water (osmoregulation) and blood glucose levels.