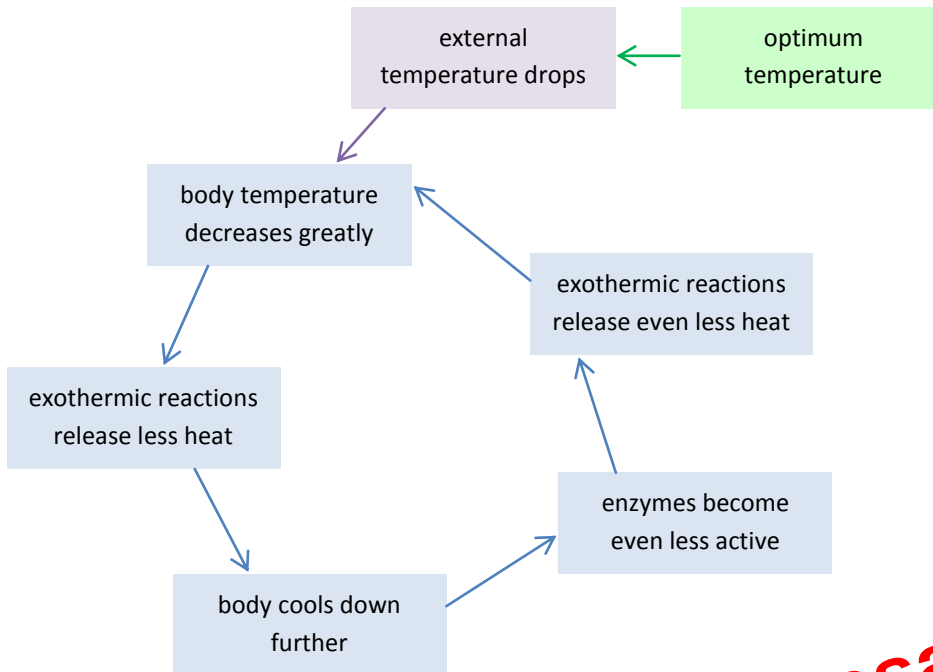


Positive feedback

The other type of feedback, which is much less common than negative feedback, is called **positive feedback**. This type of feedback usually doesn't lead to homeostasis, as the effector actually increases the change detected by the receptor, and so it can be seen as a 'vicious cycle' approach. With positive feedback, the change is amplified, which is usually harmful to the organism. One example of this is, again, using temperature. However, this time, we must assume that the body is getting too cold due to a severely low temperature. Normally, if the external temperature decreases slightly, our bodies can react to the change, but when our bodies get too cold:



When the internal body temperature falls below a certain level, enzyme action decreases. This means that the reactions which release heat occur more slowly and less often, so less heat is released. The effect is that the body temperature falls even lower, and so this causes even less enzymes to function properly, so even fewer exothermic reactions release heat, so body temperature falls again, and so on.

Another example might be childbirth: when contractions begin in labour, the cervix widens, which is detected by receptors, which trigger the release of oxytocin which

causes further contractions, so the cervix widens further, which stimulates the release of yet more oxytocin, and so the cycle continues. This is an example of where positive feedback is actually beneficial. When the cervix has widened enough, the baby can be born. Of course, this cycle will eventually end at some point, but this cannot always be said for every type of positive feedback, which is why (for example with the temperature) it can be very dangerous.

Preview from Notesale.co.uk
Page 2 of 2