**6.5.8 State that homeostasis involves maintaining the internal environment between limits, including blood pH, carbon dioxide concentration, blood glucose concentration, body temperature and water balance.**

Homeostasis involves maintaining the internal environment between limits, including blood pH, carbon dioxide concentration, blood glucose concentration, body temperature and water balance.

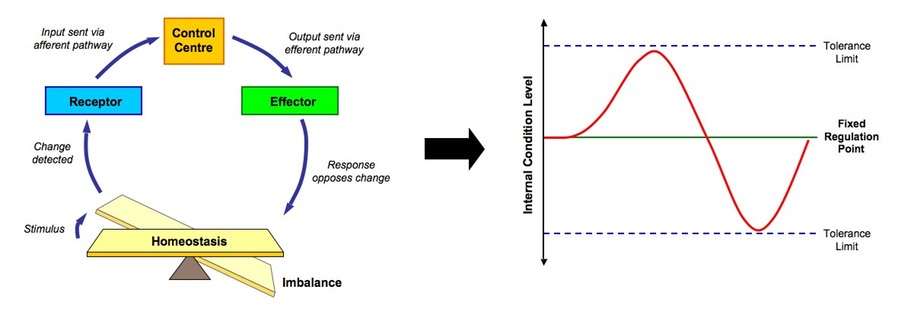
**6.5.9 Explain that homeostasis involves monitoring levels of variables and correcting changes in levels by negative feedback mechanisms.**

Homeostasis involves maintaining the internal environment between limits, including blood pH, carbon dioxide concentration, blood glucose concentration, body temperature and water balance. Blood and tissue fluid (derived from blood) make up the internal environment. This internal environment varies very little compared to the external environment which varies greatly. Negative feed back is used to keep the internal environment between limits. It uses the nervous and endocrine system to do so. It has a stabilising effect as any change from a set point level will result in an opposite change. The levels of production of for example blood glucose, feed back to affect the rate of production. If blood glucose levels rise above the set point, this will feed back to decrease production and reduce the level back around the set point. A decrease in blood glucose levels below the set point will result in an increase in production so that the levels increase back to the set point. Small fluctuations around the set point will not cause any response. Negative feed back is only triggered when there are significant increases or decreases from the set point.

*Summary:*

*1. Homeostasis maintains the internal environment between limits.*

*2. Negative feed back is used to do so. Any change from a set point results in an opposite change.*

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