**Regulation of Breathing Movements**

Our body undergoes so many changes and we need to be able to have ongoing oxygen and get rid of carbon dioxide waste from cellular respiration

How do we manage this?

Chemoreceptors and the Brain

**Chemoreceptor:**

The **medulla oblongata**

Two types of chemoreceptors:

1.

2.

* carbon dioxide/acid chemoreceptor is because our body is VERY sensitive to too much CO2 build up
* toxic= deadly= not good

If high levels of CO2 are detected:

* initiates increased
* Result=

**Carotid and Aortic bodies-** specialized type of chemoreceptor

* Carotid and Aortic bodies are found in the carotid and aortic arteries.
* Main function:

When they detect ***low levels*** of O2:

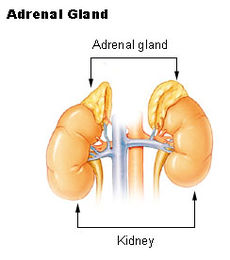
* they send a nerve impulse (message)
* initiates increased
* Result= increase breathing

**Exercise Response #1**

* During exercise,
* Therefore CO2 levels increase
* This stimulates in the *medulla oblongata* of our brain
* initiates increased rib muscles and diaphragm movements
* Result= increase breathing
* That’s why you breathe heavy when you are working hard= because your body needs more oxygen and is making more CO2

**Exercise Response #2**

* Your adrenal gland stimulates the release of
* This causes breathing rate to increase



Do: **9.1-9.3 Study Sheet – quiz tomorrow**

**You can start: Respiration Disorder Assignment**