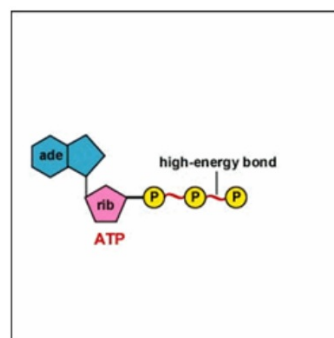
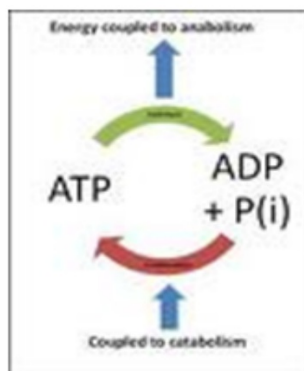


Where does Active Transport get its energy?! **ATP**

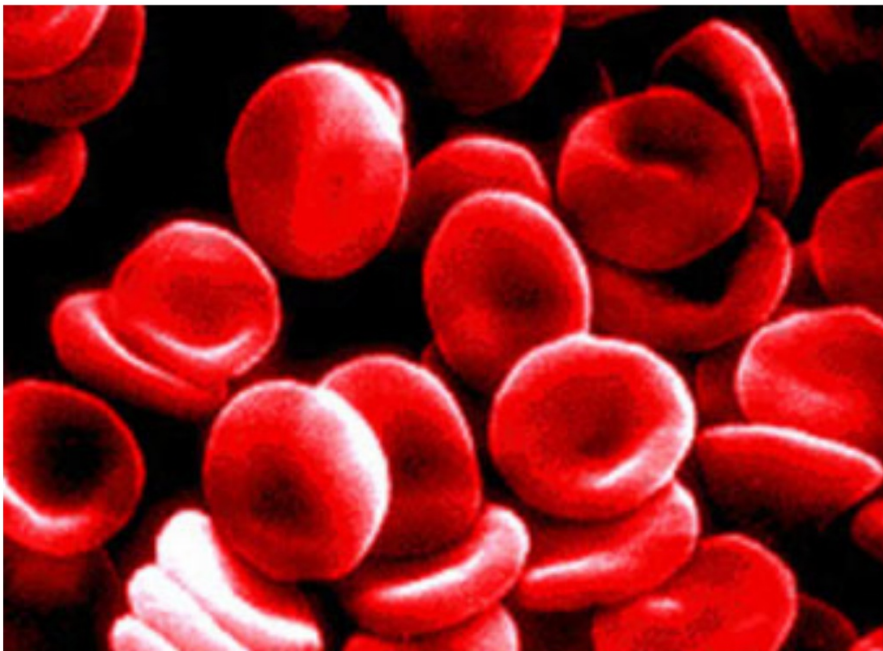
ATP (Adenosine Triphosphate) has 3 phosphates. To release energy, it kicks off the 3rd phosphate. ATP then becomes ADP (Adenosine Diphosphate) with just 2 phosphates, until another one is added again.



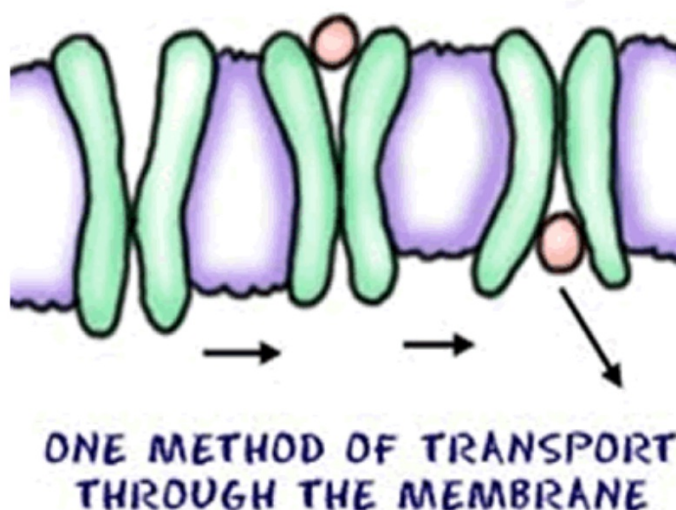
<https://www.youtube.com/watch?v=JGF6ry0SWPs>

Why is cell transport important?! **Homeostasis**

HOMEOSTASIS- maintaining a stable environment. Cells want to stay stable. Molecules move in and out of cells to keep them balanced and stable.



Too much sugar, acid, water, heat, etc inside of the cells could kill or harm the cell. We must pump these materials in and out of the cell.



Examples of homeostasis:

<http://www.youtube.com/watch?v=62e8IV-WT8c>

- The pancreas produces insulin and glucagon to control blood-sugar concentration
- muscles can shiver to produce heat if the body temperature is too low
- regulation of the amounts of water and minerals in the body in the kidneys
- sweat is the release of water to cool the skin through evaporation.

