Ch 9.5

**Electron Transport Chain** used in **Anaerobic Respiration** but not **Fermentation**

* *Anaerobic Organisms* can use a *Sulfur Ion* called **SO42-** at the end of the chain instead of O2
  + They make H2S as a byproduct instead of H20
    - Byproduct smells like rotten eggs

O2 is need for oxidative phosphorylation to happen

Fermentation doesn’t need ATP to function

**Alcohol** Fermentation Process: Also used by yeast and bacteria

* Glycolysis make two pyruvates that undergo fermentation; Also make 2 ATP
* Get turned to two Acetaldehyde
* NAD+ Regeneration into 2 Ethanol; Uses NADH
* Allows cycle to continue

**Lactic** Acid Fermentation: Used by Human, Fungi, and Bacteria

* Glycolysis make two pyruvates that undergo fermentation; Also make 2 ATP
* NAD+ Regeneration into 2 Lactate; Uses NADH
* Allows cycle to continue

**Obligate Anaerobes** = Only use Ferment. \or Anaerobic resp. can’t survive in oxygen

**Facultative Anaerobes** = Can only make enough energy to survive using either fermentation or Anaerobic Respiration