- Many bacteria and fungi rely on it, for example yeast 0
- Glycolysis takes place 0
- Each pyruvate is converted to an ethanol (2 carbons) molecule 0
- The lost 2 carbons form 2 carbon dioxide molecules 0
- Both ethanol and carbon dioxide are waste products 0
 - That is why yeast is used in baking and in alcohol production
- The only ATP produced comes from glycolysis 0
- ➤ Lactic acid fermentation
 - Happens in organisms that use oxygen during cell respiration
 - Some of the glucose entering into cell respiration will follow this anaerobic 0 pathway when the organism exceeds its body's capacity to supply oxygen
 - Lactic fermentation allows glycolysis to continue 0
 - Glycolysis takes place 0
 - 2 3-carbon pyruvate molecules are converted into 2 3-carbon lactic acid 0
- There are converted back into pyruvate when oxygen levels rise and aerobic 0 Sourc respiration
 Occurs in mitochondria
 Oxygen is neced
 Protein
 Glycolysis takes el:

Aerobic respiration

- The 2 pyruvate molecules enter a mitochondrion 0
- Each pyruvate loses a carbon dioxide and becomes acetyl-CoA 0
 - Acetyl-coenzyme A has 2 carbon atoms
- The 2 acetyl-CoA molecules enter the Krebs cycle 0
 - A series of reactions
 - A cycle because it starts and ends with the same molecule
- Through many reactions the 2-carbon acetyl-CoA are broken down into 2 carbon dioxide molecules
 - 3 oxygens are needed to break down each acetyl-CoA
- 30-36 ATP molecules are generated
- Aerobic cell respiration completely oxidizes a glucose molecule and the end-products are carbon dioxide, water and ATP

$$C_6H_{12}O_6 + 6O_2 \Rightarrow 6CO_2 + 6H_2O$$