Anaerobic respiration in bacteria

Literature, Russian Literature

Anaerobic respiration in Bacteria Like humans and other animals, bacteria need to breathe. Anaerobic bacteria basically mean bacteria that respire anaerobically. All living cells need to respire in order to release energy for vital cell activities. Anaerobic respiration is respiration in the absence of oxygen, hence anaerobic bacteria does not breathe at all. The purpose of respiration is to provide the cell with the appropriate molecules for creating energy in the form of adenosine triphosphate, ATP Many types of bacteria respire anaerobically. In other words, they can go through the process of respiration without oxygen present. Instead of using oxygen to help them burn the energy in their food, these types of bacteria use other naturally-occurring chemicals to create chemical reactions and release the energy they need. Common naturally-occurring chemicals used include nitrates, sulfates and carbon dioxide. Anaerobic respiration in bacteria generally creates many byproducts. Many of these byproducts can be toxic or dangerous to human beings and include ethanol and hydrogen. Here is a deeper explanation. Anaerobic bacteria use inorganic molecules like nitrate, sulfate and carbonate as final electron acceptors in the place of oxygen. These molecules sit at the end of the electron transport chain. The electron transport chain in bacteria uses the products of glycolysis, a process that breaks down sugars, to create a proton gradient across the outside of the cell membrane. These protons then cross back across the cell membrane, driving the addition of a phosphate group to adenosine diphosphate, an adenosine molecule with only 2 phosphate groups, to make adenosine triphosphate. Pictures of bacteria that respire anaerobically.