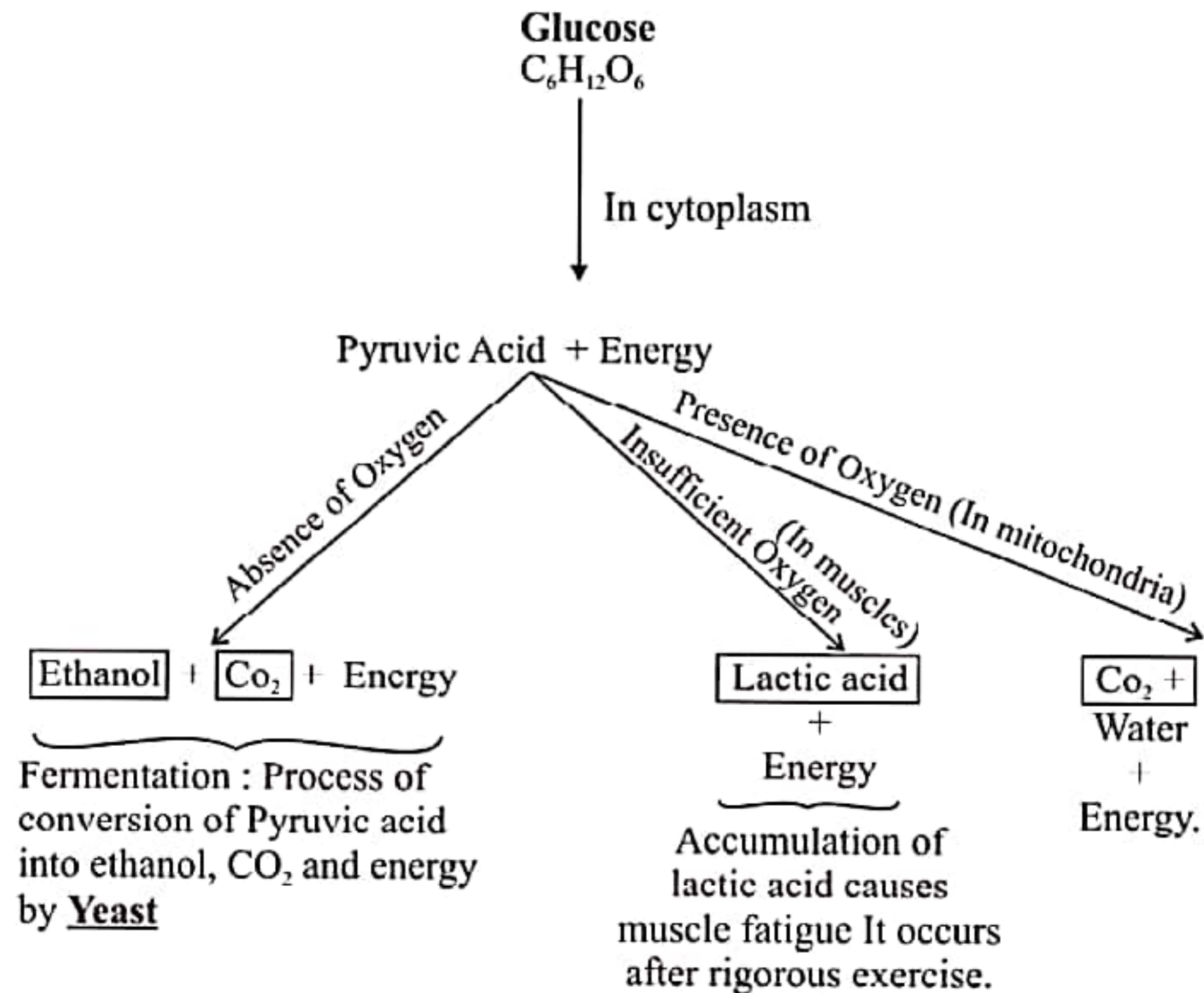


Respiration

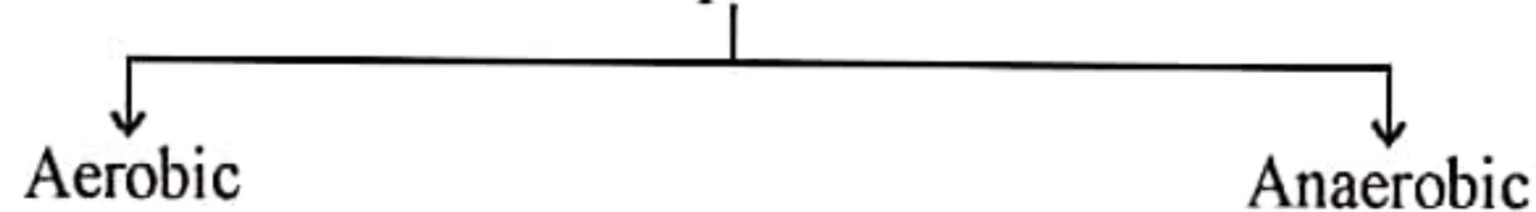
Respiration involves

- (i) Gaseous exchange : Intake of oxygen from the atmosphere and release of $\text{CO}_2 \rightarrow$ Breathing
- (ii) Breakdown of simple food in order to release energy inside the cell \rightarrow Cellular Respiration

Breakdown of Glucose by various pathways



Respiration

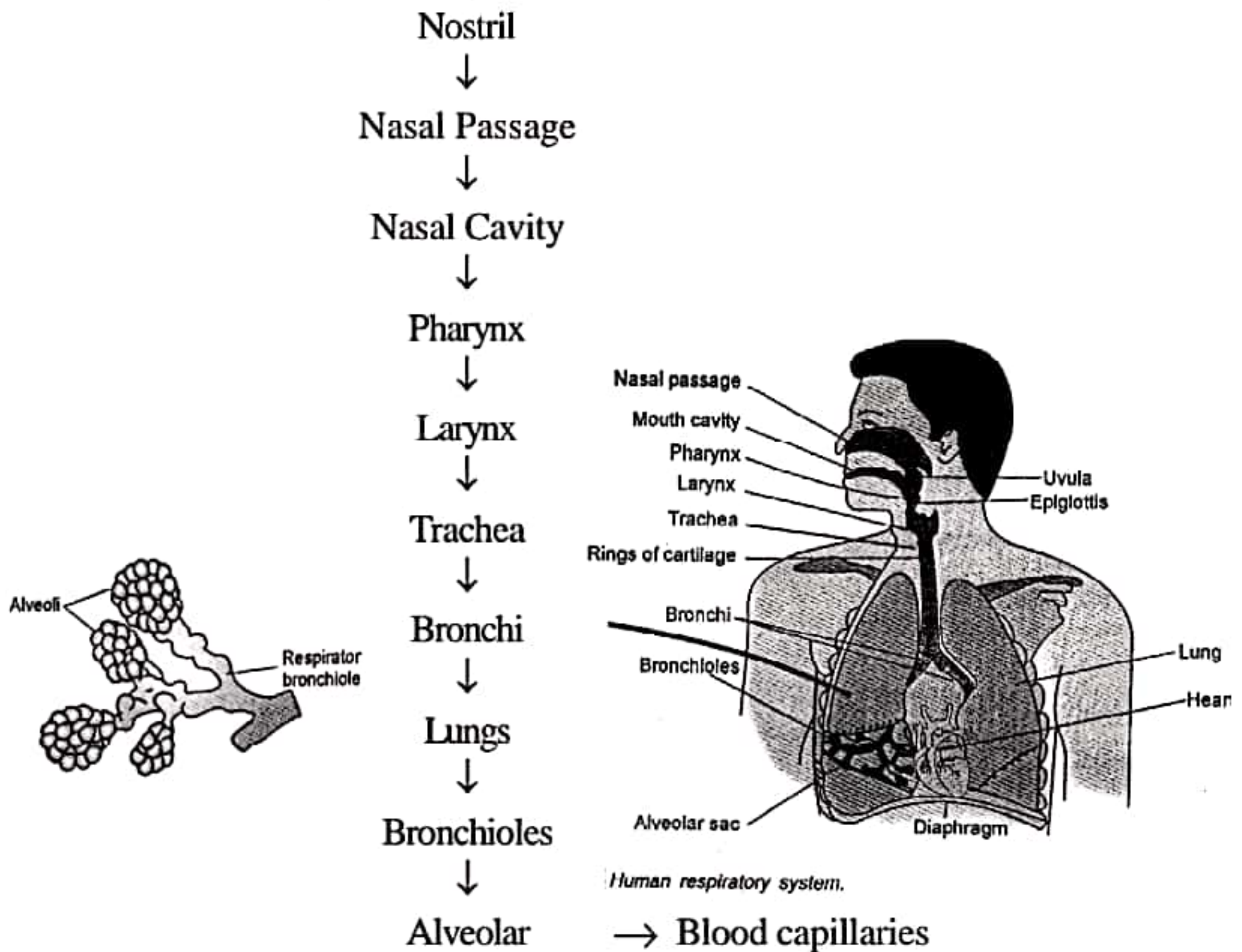


- * Takes place in the presence of oxygen
- * Occurs in mitochondria
- * End products are CO_2 and H_2O
- * More amount of energy is released

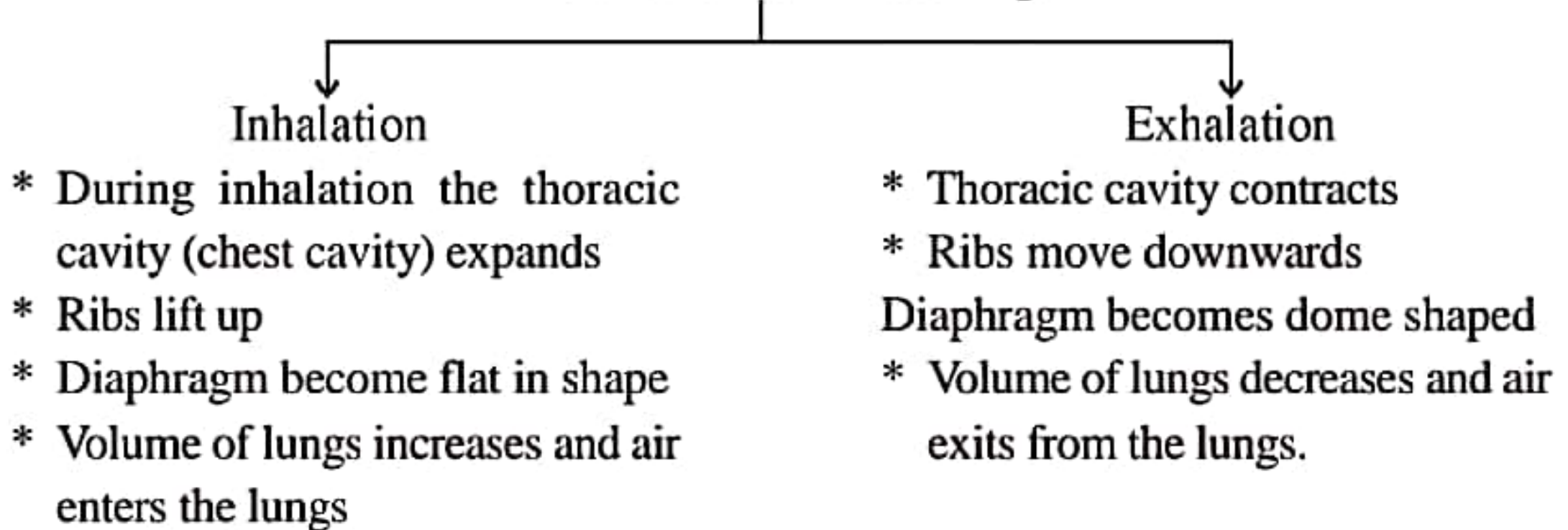
- * Takes place in the absence of oxygen
- * Occurs in cytoplasm
- * End products are alcohol or lactic acid.
- * Less amount of energy is released.

Human Respiratory System

Passage of air through the respiratory system.



Mechanism of Breathing



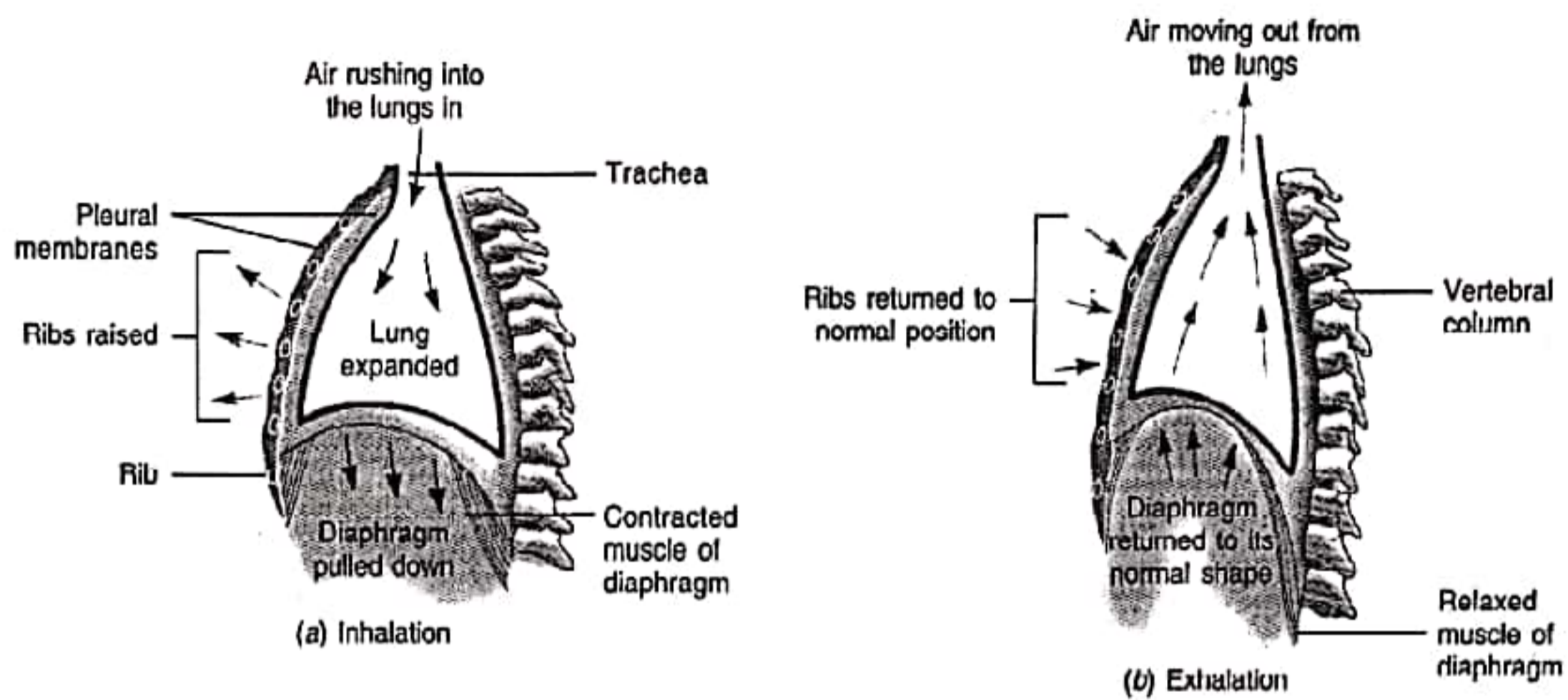
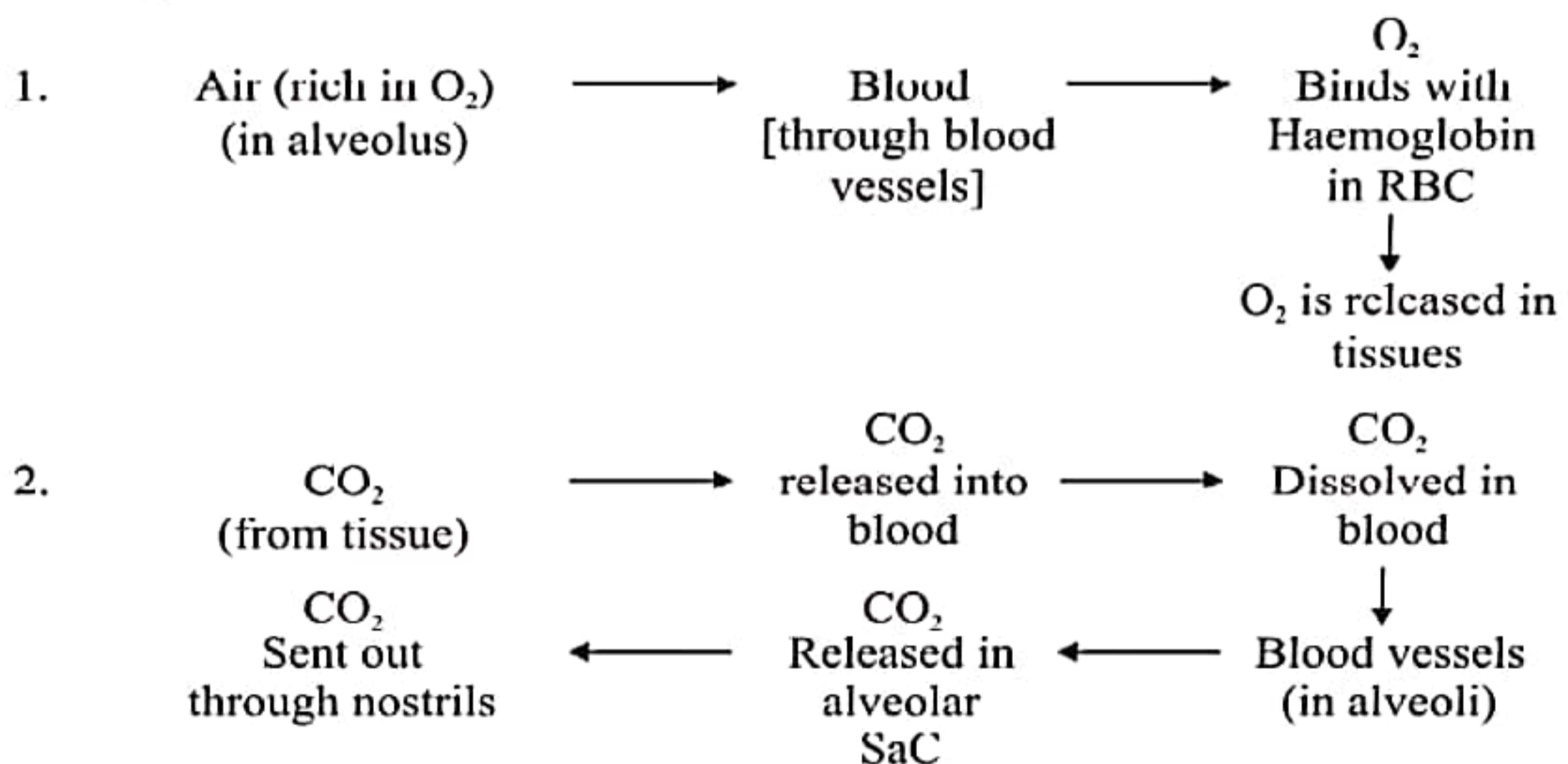


Fig. Mechanism of breathing

Exchange of Gases between alveolus, blood and tissues.



Terrestrial Organism – use atmospheric oxygen for respiration

Aquatic Organisms – used dissolved oxygen for respiration

Respiration in Plants :

Respiration in plants is simpler than the respiration in animals. Gaseous exchange occur through

1. Stomata in leaves
2. Lenticels in stems
3. General surface of the roots.