

Components of the lungs -

The lungs are divided into lobes. The left lung contains two lobes, the right lung has three. Each lobe is served by its own artery and vein, and receives air from an individual bronchus.

Each lung is enclosed in a pleural membrane that helps keep the two lungs away from each other and airtight. If one lung is punctured and collapses the other pleural cavity will still be airtight and its lung will work normally.

Pleural Cavity is an area which surrounds the lung. Each lung is inside an isolated pleural cavity, with the lungs forming inside the cavity during fetal development. This space inside the body is formed between the parietal and visceral pleura which line the lungs and body cavity. It allows room for the lungs to expand and contract, and is designed to make it easy for the lungs to inflate after they have deflated.

Parietal pleura- outermost of the two pleural membranes, it covers the thoracic wall and the top of the diaphragm. It continues around the heart and between the lungs, forming the lateral walls of the mediastinal enclosure.

Thoracic cavity- is protected by the thoracic wall. It is separated from the abdominal cavity by the diaphragm. The thoracic cavity protects and holds the lungs, heart, trachea, oesophagus, endocrine glands, thoracic aorta and the pulmonary artery. Enclosed by the ribs, breast bone and vertebral column

Visceral pleura- innermost of the two pleural membranes, it covers the surface of the lung and dips into the spaces between its lobes. It is a thin serous membrane tissue layer that sticks to the lung surface. It is the innermost of the two pleural membrane layers investing the lungs.

Pleural fluid- Pleural fluid is a thin, transparent fluid produced in the area around the lungs that helps them expand and contract effortlessly. Although the membrane slides easily across each other their separation is resisted by the surface tension of the pleural fluid. When breathing the pleural cavity experiences a negative pressure which helps adhere the lungs to the chest wall. This means that movement of the chest wall during breathing are coupled closely to movements of the lungs.