

## 1. R.S: 1. Normal lungs

- A specimen of right lung with three lobes
- Bronchi present on the backside which connect all three lobes of right lung

### General description

- The lungs are the centre of the respiratory (breathing) system.
- This spongy, pinkish organ looks like two upside-down cones in your chest.
- The right lung is made up of three lobes. The left lung has only two lobes to make room for your heart.
- Each bronchiole tube ends with a cluster of small air sacs called **alveoli** (individually referred to as alveolus). They look like tiny grape bunches or very tiny balloons. There are about 600 million alveoli in your lungs.
- The small bubble shapes of the alveoli give your lungs a surprising amount of surface area — equivalent to the size of a tennis court. This means there's plenty of room for vital oxygen to pass into your body.
- Each alveolus is covered by a net of tiny blood vessels called capillaries. Oxygen and carbon dioxide exchange happens here.
- Your heart sends deoxygenated blood to the lungs. This is blood that is carrying carbon dioxide rather than oxygen.
- As the blood passes through the tiny, thin-walled capillaries, they get oxygen from the alveoli. They return carbon dioxide through the thin walls to the alveoli.
- The oxygen-rich blood from your lungs is sent back to your heart, where it's pumped to your entire body. The carbon dioxide is breathed out of the lungs and alveoli through your mouth and nose.



### Dimensions

- At birth, the lungs weigh about 40 g and double in weight by 6 months.
- Mature respiratory alveoli appear at approximately 36 weeks of gestation and continue to develop until about 2 years of age.
- By age 2 years, when most of the alveolarization process is completed, total lung weight is approximately 170 g.
- In the normal adult, the lungs weigh approximately 1000 g.
- Lung volume increases from about 250 mL at birth to 6000 mL in the adult.