

*Tikrit University*

*College of Nursing*

*Basic Nursing Sciences*



**First Year - 2023-2024**

**Anatomy**

**First stage**

**(عنوان المحاضرة)**

**Respiratory system**

**by:**

***Asst. Lecturer:***

***Saif Mohammed Fanar***

## Respiratory system:

The respiratory system consist of :

1. upper respiratory tract.
2. lower respiratory tract.

### Functionally :

It can be divided into conducting portion which transports air and a respiratory portion where gas exchange with blood occurs.

The upper respiratory tract includes :

1. Nose.
2. Nasal cavity.
3. Pharynx.

The Lower respiratory tract includes :

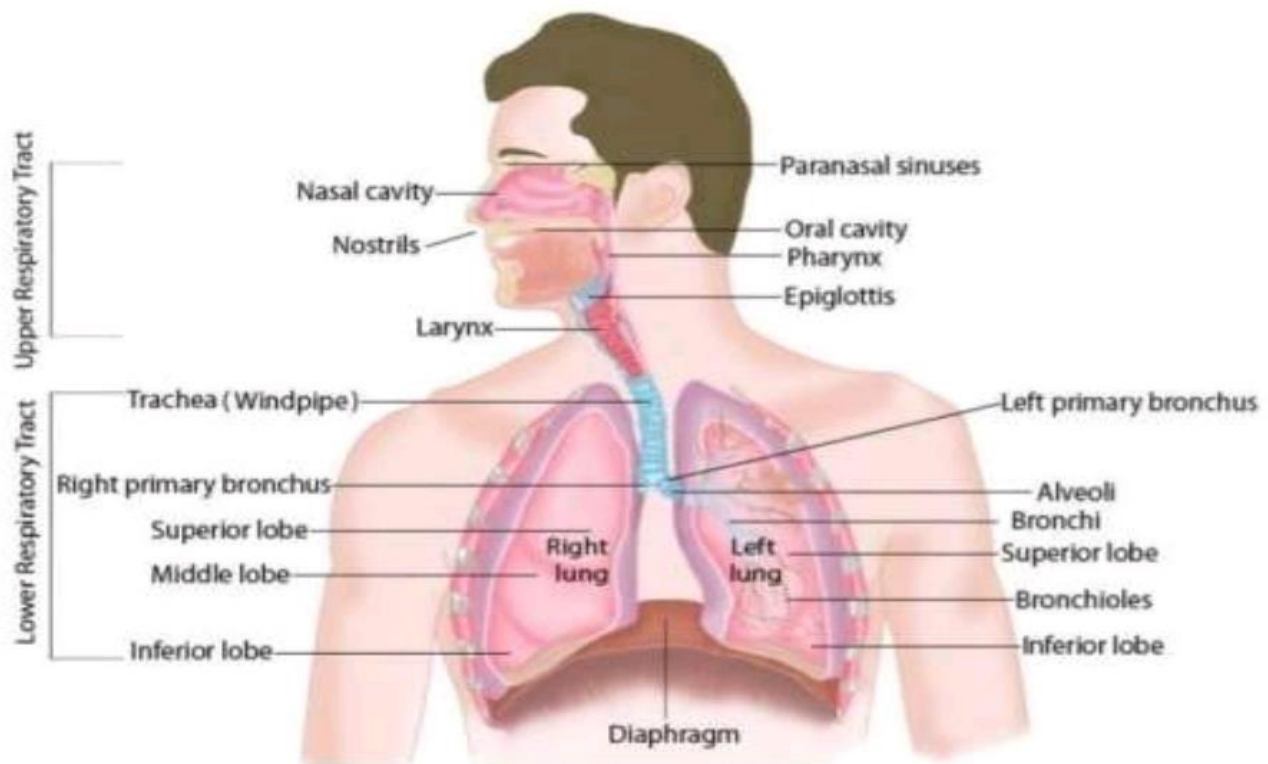
1. Larynx ( sound box ).
2. Trachea.
3. Bronchi.
4. Bronchioles.
5. Alveoli.

### Conductive Parts :

Parts of respiratory system where exchange of gases does not take place, include Nose, larynx, trachea, and bronchi.

### Respiratory Parts :

Parts of respiratory system where exchange of gases takes place, Include Lungs .



## Organs of human respiratory system:

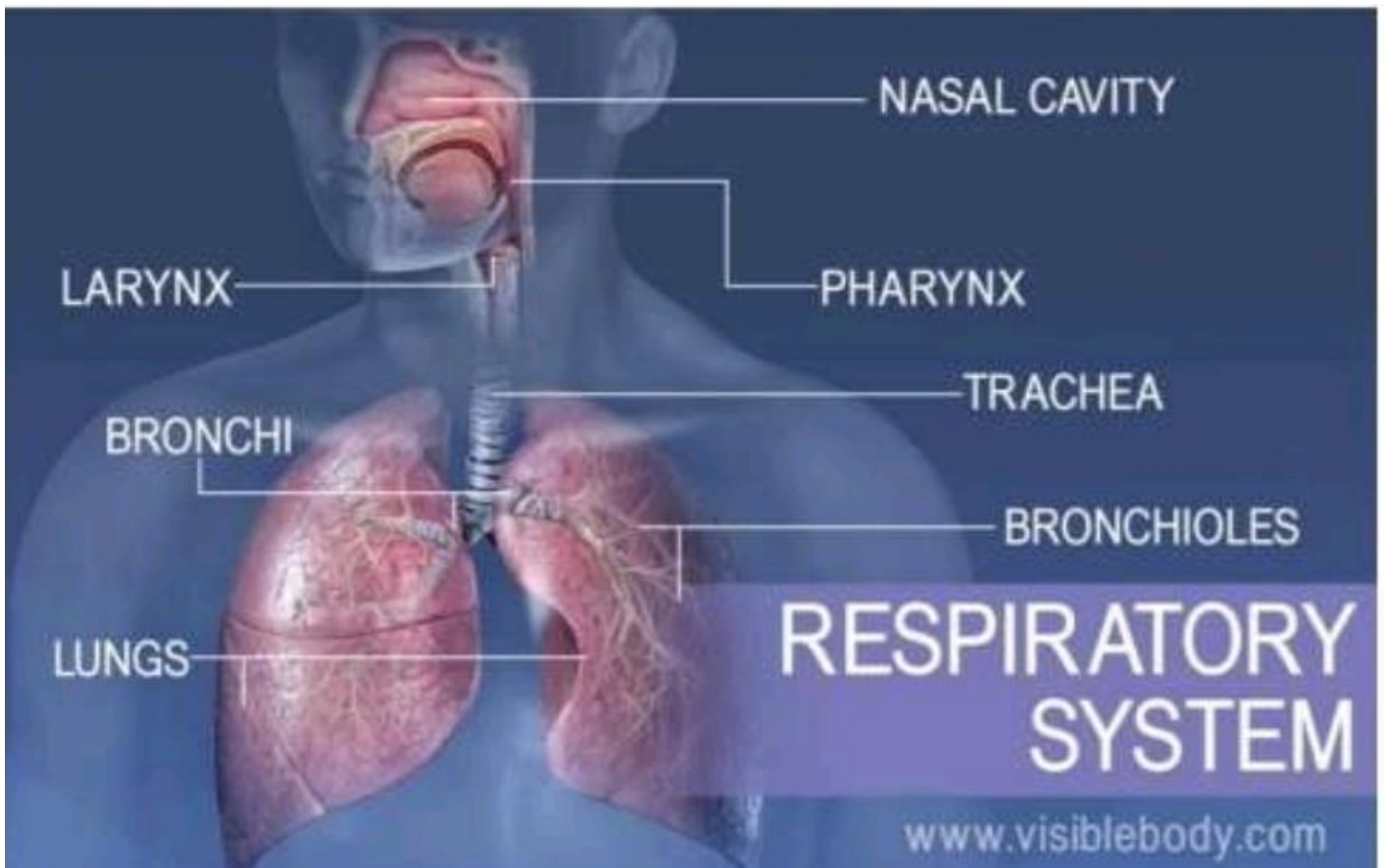
The main organs of human respiratory system are lungs and respiratory passages. Muscles of respiration also form a component of respiratory system but their importance is rather little as compared to lungs and respiratory passages.

## Lungs:

Lungs are the organs of human body where gaseous exchange takes place. Human beings have two lungs known as the right and left lungs. Lungs are soft, spongy and very elastic.

## Respiratory Passages:

Respiratory passages or air-ways are the conducting portions of human respiratory system. Here no exchange of gases takes place, but they guide the air to go to the lungs and not anywhere else in the body. Conducting portion of the human respiratory system consists of; Trachea, Bronchi, Bronchioles, Alveolar sacs and Alveoli.



## Functions of Respiratory System :

### 1. Gaseous Exchange :

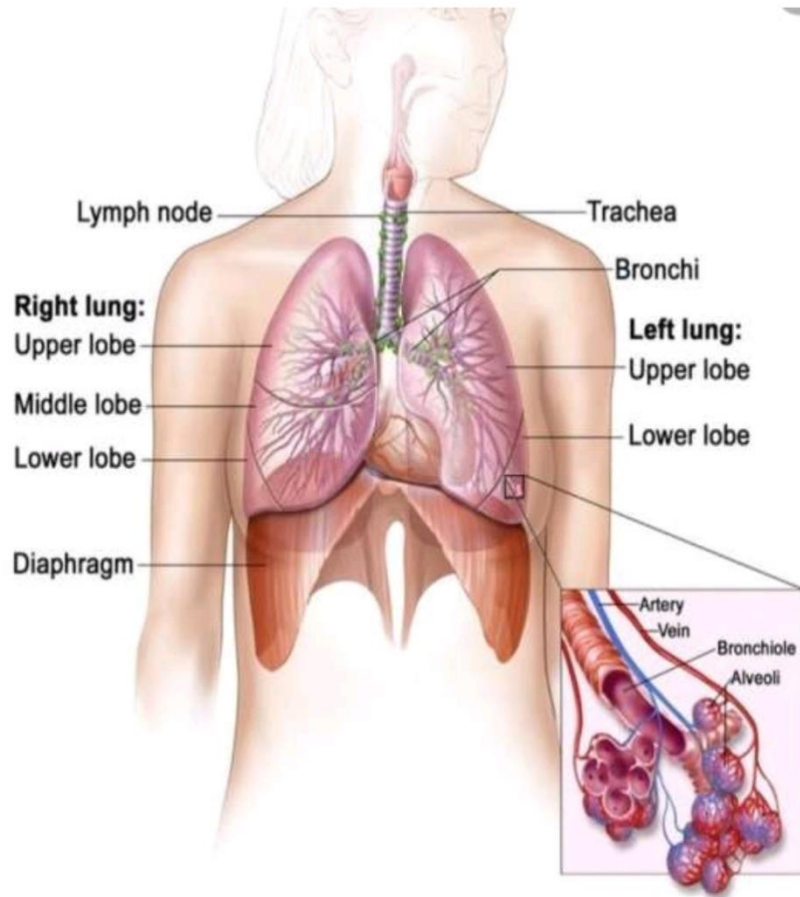
Main function of respiratory system is gaseous exchange. Through respiratory system new air is always brought into the body and used air is expelled out. In this way oxygen is gained and carbon dioxide is lost by the body.

### 2. Excretion of Carbon Dioxide :

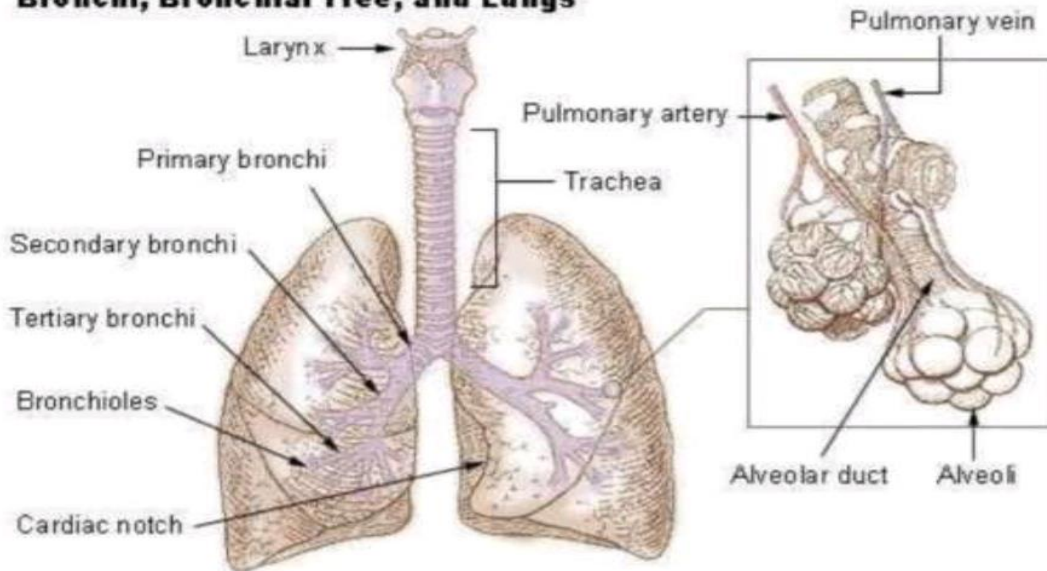
Respiratory system is the major system for excretion of carbon dioxide from the body. Carbon dioxide is produced as a result of metabolic break down of carbohydrates in body and must be eliminated quickly. Carbon dioxide is brought to the lungs by blood and is lost from the lungs through gaseous exchange with fresh air in lungs.

### 3. Oxygenation of Blood :

Oxygen is required by the body for break down of food and must be continuously supplied for continuous supply of energy. Supply of oxygen is maintained by respiratory system.



**Bronchi, Bronchial Tree, and Lungs**



**Lungs and Conductive passages**