



Faculty of Engineering
Department of Biomedical Engineering

09-02

Respiratory System

Instructor: Dr. Mehmet Yüksekaya

BME 312

Biomedical Instrumentation II

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- Pulmonary = relating to the lungs

Breathing = Ventilation

1 inspiration + 1 expiration = 1 respiration

How many times does a normal adult breath per minute?

14-20

Mechanisms of Pulmonary Ventilation

- **Respiratory Cycle**
- Single cycle of inhalation and exhalation

Respiratory Physiology

Air Flow:

$$F = \Delta P/R$$

Elasticity

- Tendency to return to initial size after distension.

Spirometry

The Cardiopulmonary System

- Cardiopulmonary System