

Al-Zahraa (A.S.) University for Women
College of Health and Medical Techniques
Department of Radiological Techniques



Thermometer & Artificial respiration

Lab 9&10

Practical Physiology
Asst. Lect. Duaa Raad

What is thermometer

- A thermometer is an instrument used to measure temperature. It typically consists of a glass tube filled with a liquid (commonly mercury or alcohol) that expands or contracts in response to temperature changes.



Types of Thermometers

- Liquid Thermometers
- Gas Thermometers
- Resistance Thermometers
- Thermo – electric Thermometers



Thermometer uses

1. Medical Use

Body Temperature Measurement: Used to check for fever or monitor health conditions.

2. Weather Monitoring

Essential for measuring air and water temperatures.

3. Cooking

Food Safety: Ensures that food is cooked to the correct temperature, preventing foodborne illnesses..

4. Industrial Applications

Manufacturing: Monitors temperatures in processes such as metalworking, chemical production, and HVAC systems.

5. Laboratories

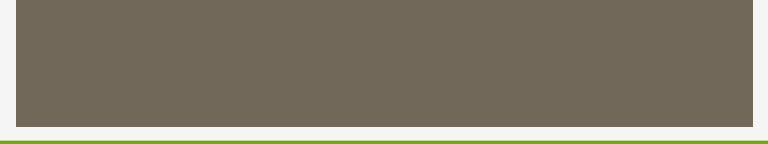
Scientific Research: Used in experiments to ensure precise temperature control and measurement

Artificial respiration

Artificial respiration is techniques required to whenever there is an arrest of breathing, without cardiac failure.

Arrest of breathing occurs in the following conditions :

- ✓ Accidents
- ✓ Drowning
- ✓ Gas poisoning
- ✓ Electric shock
- ✓ Anesthesia

- 
- ❑ Stoppage of oxygen supply for 5 minutes causes irreversible changes in tissues of brain, particularly tissue of cerebral cortex, So artificial respiration must be started quickly without any delay ,before the development of cardiac failure.
 - ❑ Purpose of artificial respiration is to ventilate the alveoli and to stimulate the respiratory centers.

Types of Artificial Respiration

- Mouth-to-Mouth Resuscitation:

Involves breathing into the patient's mouth to inflate the lungs.
Often used in CPR (Cardiopulmonary Resuscitation).

- Mouth-to-Nose Resuscitation:

Similar to mouth-to-mouth but uses the nose instead, useful in certain situations.

➤ Mechanical Ventilation:

Utilizes machines to assist or take over the breathing process.

Commonly used in hospitals for patients in critical care.

➤ Bag-Valve-Mask (BVM) Ventilation:

A handheld device used to provide positive pressure ventilation to patients.

