

Pulse Oximetry

Experiment 22 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To perform and document pulse oximetry.

Principle

A pulse oximeter estimates peripheral oxygen saturation and pulse using optical signals; it does not measure carbon dioxide or diagnose every cause of breathlessness.

Key Points

- Use a warm, still finger and correct sensor position.
- Movement, poor perfusion, nail coverings and other factors can affect reliability.
- Interpret the reading with symptoms; a reassuring number does not override severe distress.

Activity Procedure

1. Prepare

Explain the activity, obtain agreement and check the equipment and suitable resting conditions.

2. Perform

Fit the device according to its instructions, wait for a stable signal, compare pulse with a manual count when needed and repeat if signal quality is poor.

3. Record

Enter actual findings with units, method, time and any limitations.

4. Assess

Use the assigned teaching criteria and refer concerning symptoms for appropriate assessment.

Human Anatomy and Physiology

Record and Observations

Field	Actual record
Sensor site / device	_____
SpO ₂ , %	_____
Pulse, beats/min	_____
Signal quality / symptoms	_____

Result

Complete the record using your activity, then state the findings, the action required and the reason for that action.

Precautions

- Use the device instructions and infection-prevention measures.
- Stop the teaching activity if the participant becomes unwell.

Viva Questions and Answers

1. Does SpO₂ measure ventilation?

No; it estimates oxygen saturation and does not directly measure carbon dioxide clearance.

2. Why record units?

A number without units can be misunderstood.

3. Why repeat an unexpected measurement?

A repeat under valid conditions helps identify technique or device error; concerning symptoms still require prompt review.

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