



CHAPTER 10

Vital Signs and Laboratory Reference Intervals

PRIORITY CONCEPTS Cellular Regulation; Perfusion

CRITICAL THINKING What Should You Do?

The nurse has just received a client from the postanesthesia care unit (PACU) and is monitoring the client's vital signs. On arrival to the unit, the client's temperature was 37.2 °C (98.9 °F) orally, the blood pressure was 142/78 mm Hg, the heart rate was 98 beats per minute, the respiratory rate was 14 breaths per minute, and the oxygen saturation was 95% on 3 L of oxygen via nasal cannula. The nurse returns to the room 30 minutes later to find the client's temperature to be 36.8 °C (98.2 °F) orally, the blood pressure 95/54 mm Hg, the heart rate 118 beats per minute, the respiratory rate 18 breaths per minute, and the oxygen saturation 92% on 3 L of oxygen via nasal cannula. On the basis of these data, what actions should the nurse take?

Answer located on p. 189.

I. Vital Signs

A. Description: Vital signs include temperature, pulse, respirations, blood pressure (BP), oxygen saturation (pulse oximetry), and pain assessment.

B. Guidelines for measuring vital signs

1. Initial measurement of vital signs provides baseline data on a client's health status and is used to help identify changes in the client's health status.
2. Some vital sign measurements (temperature, pulse, respirations, BP, pulse oximetry) may be delegated to unlicensed assistive personnel (UAP), but the nurse is responsible for interpreting the findings.
3. The nurse collaborates with the health care provider (HCP) in determining the frequency of vital sign assessment and also makes independent decisions regarding their frequency on the basis of the client's status.

 The nurse always documents vital sign measurements and reports abnormal findings to the HCP.

C. When vital signs are measured

1. On initial contact with a client (e.g., when a client is admitted to a health care facility)
2. During physical assessment of a client
3. Before and after an invasive diagnostic procedure or surgical procedure
4. During the administration of medication that affects the cardiac, respiratory, or temperature-controlling functions (e.g., in a client who has a fever); may be required before, during, and after administration of the medication
5. Before, during, and after a blood transfusion
6. Whenever a client's condition changes
7. Whenever an intervention (e.g., ambulation) may affect a client's condition
8. When a fever or known infection is present (every 2 to 4 hours)

II. Temperature

A. Description

1. Normal body temperature ranges from 36.4° to 37.5° Celsius (C) (97.5° to 99.5° Fahrenheit [F]); the average in a healthy young adult is 37.0 °C (98.6 °F).
2. Common measurement sites are the mouth, rectum, axilla, ear, and across the forehead (temporal artery site); various types of electronic measuring devices are commonly used.
3. Rectal temperatures are usually 1 °F (0.5 °C) higher and axillary temperatures about 1 °F (0.5 °C) lower than the normal oral temperature.
4. Know how to convert a temperature to a Fahrenheit or Celsius value (Box 10-1).

B. Nursing considerations

1. Time of day
 - a. Temperature is generally in the low-normal range at the time of awakening as a result of muscle inactivity.
 - b. Afternoon body temperature may be high-normal as a result of the metabolic process, activity, and environmental temperature.

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M Walker

A red circular graphic with a gradient, appearing as a partial circle or a stylized arrow pointing to the right, located to the right of the author's name.

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1. Understanding the eBook Elsevier Saunders Vital Signs Answers
 - The Rise of Digital Reading Elsevier Saunders Vital Signs Answers
 - Advantages of eBooks Over Traditional Books
2. Identifying Elsevier Saunders Vital Signs Answers
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an Elsevier Saunders Vital Signs Answers
 - User-Friendly Interface
4. Exploring eBook Recommendations from Elsevier Saunders Vital Signs Answers
 - Personalized Recommendations
 - Elsevier Saunders Vital Signs Answers User Reviews and Ratings
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 - Participating in Virtual Book Clubs
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 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Elsevier Saunders Vital Signs Answers
10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
11. Cultivating a Reading Routine Elsevier Saunders Vital Signs Answers
 - Setting Reading Goals Elsevier Saunders Vital Signs Answers
 - Carving Out Dedicated Reading Time
12. Sourcing Reliable Information of Elsevier Saunders Vital Signs Answers
 - Fact-Checking eBook Content of Elsevier Saunders Vital Signs Answers
 - Distinguishing Credible Sources
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 - Exploring Educational eBooks
14. Embracing eBook Trends
 - Integration of Multimedia Elements

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