



Winter Practice Questions

Hello there, and Happy Holidays! 🎁

As winter arrives and the world turns frosty, certain medical topics start popping up more often in clinics and hospitals. From slippery ice injuries to seasonal infections, healthcare teams stay especially busy during these chilly months!

Get ready to test your knowledge on cold-related emergencies, winter infections, fever management, immunology, and winter nutrition—all with a cozy, festive twist to make studying a little more cheerful. 🧊 ✨

Have fun, stay warm, and enjoy these winter wonderland questions! ❄️

Instructions:

1. Read each question carefully and choose the correct answer.
2. Some questions include clinical cases—think like a doctor, nurse, or Santa's trusted medical helper! 🧑🏻‍⚕️
3. Take your time... but be prepared, a few questions may be trickier than a hidden ice patch on the sidewalk!





Cold-Related Injuries & Emergencies



1.

During a holiday trip to a snowy mountain cabin, a skier is brought into the lodge with frozen, pale fingers after being exposed to blizzard-level winds. Which of the following factors is most critical in managing this frostbite?

- A) Rewarming the affected area gradually
- B) Immediate rewarming in hot water
- C) Keeping the area cold to reduce swelling
- D) Rubbing the frostbite area like “warming hands by the fire”

Answer: A) Rewarming the affected area gradually

Explanation: Frostbitten tissue must be warmed gradually using warm (not hot) water to prevent cellular injury and worsening tissue damage.

2.

Santa spends hours in rooftop weather, climbing chimneys and delivering presents under Christmas trees. What part of Santa’s brain helps regulate his body temperature during these chilly holiday nights?

- A) Cerebral cortex
- B) Hippocampus
- C) Hypothalamus
- D) Medulla oblongata

Answer: C) Hypothalamus

Explanation: The hypothalamus acts as the body’s thermostat, activating heat-production and heat-loss mechanisms to maintain temperature — which is exactly how Santa can survive his frosty Christmas Eve route.

3.

A participant in a snowman competition presents with white, waxy fingertips that are hard to the touch. What should the clinician do FIRST?

- A) Rub the fingers to restore circulation
- B) Rewarm in warm water (37–39°C)
- C) Air dry and rewarm naturally
- D) Apply direct heat with a heating pad

Answer: B) Rewarm in warm water (37–39°C)

Explanation: Rapid, gentle rewarming in a warm water bath (37–39°C) is the recommended first step for frostbite. It helps restore blood flow and prevent further tissue damage. Rubbing the fingers can cause further injury, while direct heat from a heating pad may lead to burns.



4.

During a festive family outing at the town's holiday ice-skating rink, a teenager slips on the ice and falls onto an outstretched hand. They arrive at the clinic with wrist pain, swelling, and difficulty moving the joint. The clinician suspects a possible fracture. Which finding would MOST strongly support the diagnosis of a distal radius fracture?

- A. Full range of motion with minimal tenderness
- B. Pain only when skating but not at rest
- C. Localized swelling and a visible "dinner-fork" wrist deformity
- D. Warm, flushed skin over the wrist

Answer: C) Localized swelling and a visible "dinner-fork" wrist deformity

Explanation: The presence of localized swelling and a visible "dinner-fork" deformity is characteristic of a distal radius fracture, commonly referred to as a Colles fracture. This type of fracture typically occurs when a person falls onto an outstretched hand, leading to the distinctive dorsal angulation of the distal fragment of the radius. Such injuries frequently happen during winter activities, such as ice skating, where there is a higher risk of falls.



Winter Infections & Respiratory Illnesses

5.

After a crowded office holiday party, several coworkers develop fever, cough, and myalgia within 48 hours. One coworker asks how to prevent this from happening next year. Which recommendation is the most evidence-based?

- A) Taking high-dose Vitamin C the morning of the party
- B) Wearing two scarves to "protect the lungs"
- C) Keeping windows open during the winter months
- D) Getting the seasonal influenza vaccine annually

Answer: D) Getting the seasonal influenza vaccine annually

Explanation: Annual influenza vaccination remains the most evidence-based preventive strategy against influenza. It significantly reduces the risk of infection and its complications. The effectiveness of high-dose Vitamin C is inconsistent, while keeping windows open and wearing scarves do not reliably prevent viral transmission.

6.

A 3-year-old is brought to the clinic after a festive holiday party. The child now has a cough, wheezing, and increased work of breathing. The clinician suspects RSV. What is the most appropriate management step?

- A) Start antibiotics immediately
- B) Administer bronchodilators and monitor
- C) Recommend immediate hospitalization irrespective of symptoms
- D) Advise parents to wait and observe at home

Answer: B) Administer bronchodilators and monitor

Explanation: Bronchodilators may relieve wheezing and respiratory distress in RSV. Close monitoring is essential to determine if symptoms worsen. Hospitalization is reserved for significant respiratory compromise.



Nutrition & Vitamin Deficiencies



7.

Grandma is getting ready to take care of her grandchildren during the Christmas holidays, and she wants them to stay healthy enough to play in the snow, go sledding, and enjoy all the winter fun. She asks which nutrients can help support their immune system during the chilly season. Which recommendation is MOST accurate?

- A. Avoid carbohydrates to prevent infections
- B. Eat more holiday cookies for energy
- C. Drink only smoothies to “cleanse the immune system”
- D. Increase zinc and vitamin C intake

Answer: D) Increase zinc and vitamin C intake

Explanation: Zinc and vitamin C play important roles in supporting normal immune function. Zinc is essential for immune cell development and activity, while vitamin C works as an antioxidant and aids both innate and adaptive immunity. Holiday cookies may boost morale, but not immunity.

8.

At the beginning of December, several of Santa’s elves in the North Pole workshop begin complaining of fatigue and bone aches after long days preparing presents. They’ve been working indoors for weeks and haven’t seen much sunlight. Which lab finding would best support a diagnosis of vitamin D deficiency?

- A. Elevated calcium
- B. Low 25-hydroxyvitamin D
- C. High hemoglobin
- D. Low TSH

Answer: B) Low 25-hydroxyvitamin D

Explanation: Vitamin D deficiency is confirmed by a low 25-hydroxyvitamin D level. Elves (and humans!) who spend long winter days indoors may lack sunlight exposure needed for vitamin D synthesis. Calcium, hemoglobin, and TSH do not diagnose this condition.



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Fever & Symptom Management



9.

After spending the entire day sledding, building snowmen, and playing in the cold, a child develops a fever of 39°C. Despite the fever, they are alert and hydrated. Which statement about fever is MOST accurate?

- A. Fever severity is judged by both temperature and the child's appearance
- B. All fevers after cold exposure are emergencies
- C. Fever must always be treated to prevent seizures
- D. A fever under 40°C is never concerning

Answer: A) Fever severity is judged by both temperature and the child's appearance

Explanation: Evaluating fever in children depends not only on the number on the thermometer but also on the child's overall appearance, behavior, hydration, and clinical context. A child may have a high fever after a snowy day but remain alert and hydrated, suggesting a less serious condition.

10.

After a cold evening of visiting crowded winter markets, a 40-year-old presents with fever, headache, and muscle aches. Which symptom requires the MOST urgent evaluation?

- A. Fever of 38°C (100.4°F)
- B. Myalgia
- C. Confusion or altered mental status
- D. Nasal congestion

Answer: C) Confusion or altered mental status

Explanation: Altered mental status (AMS) is a critical indicator that may signify a serious underlying medical condition, particularly when accompanied by fever.

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