

CHAPTER 1: INTRODUCTION TO MOLD

Knowledge Test

Lesson 1 What Molds Are

Question 1: Mold spores are usually found in indoor air.

- A. True
- B. False?

Lesson 2 What Mold Needs to Grow

Question 2: The most important factor influencing mold growth indoors is:

- A. Temperature
- B. Light
- C. Moisture or water
- D. Organic matter

Lesson 2 What Mold Needs to Grow

Question 3: Molds can grow in cold places.

- A. True
- B. False

Lesson 3 Health Effects That May Be Caused by Inhaling Mold or Mold Spores

Question 4: Dead mold is allergenic.

- A. True
- B. False

Lesson 4 Mycotoxins and Health Effects

Question 5: All molds produce mycotoxins.

- A. True
- B. False

Lesson 5 The Color of Mold

Question 6: All mold is black.

- A. True
- B. False

CHAPTER 1: INTRODUCTION TO MOLD

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Lesson 1.6 Moldy Smells

Question 7: A moldy odor in a building suggests that mold is growing in the building whether or not you see mold.

- A. True
- B. False

Lesson 7 Biocides

Question 8: Routine use of biocides (such as chlorine bleach) in mold cleanup is NOT recommended.

- A. True
- B. False

CHAPTER 1: INTRODUCTION TO MOLD

Answer Key

Question 1: Answer: "A" TRUE

Mold spores are ubiquitous; they are found both indoors and outdoors. Mold spores cannot be eliminated from indoor environments.

Question 2: Answer: "C" Moisture and water

To grow indoors, mold needs moisture and food. Moisture is the most important factor influencing mold growth indoors. Controlling indoor moisture helps limit mold growth.

Question 3: Answer: "A" TRUE

In most cases, temperature is not an issue; some molds grow in warm areas, while others prefer cool locations such as bread stored in a refrigerator.

Question 4: Answer: "A" TRUE

Mold does not have to be alive to cause an allergic reaction. Dead or alive, mold can cause allergic reactions in some people.

Question 5: Answer: "B" FALSE

The amount and types of mycotoxins produced by a particular mold depends on many environmental and genetic factors. No one can tell whether a mold is producing mycotoxins just by looking. Some mycotoxins are known to affect people, but for many mycotoxins little health information is available.

Question 6: Answer: "B" FALSE

Molds come in many colors including white. "Black mold" is not a species or specific kind of mold, and neither is "toxic mold."

Question 7: Answer: "A" TRUE

Because mVOCs often have strong or unpleasant odors, they can be the source of the "moldy odor" or musty smell frequently associated with mold growth. A moldy odor suggests that mold is growing in the building and should be investigated.

Question 8: Answer: "A" TRUE

The use of a biocide or a chemical that kills organisms such as mold (chlorine bleach, for example) is not recommended as a routine practice during mold cleanup. If disinfectants or biocides are used, always ventilate the area and exhaust the air to the outdoors. Never mix chlorine bleach with other cleaning solutions or with detergents that contain ammonia because toxic fumes could be produced.

CHAPTER 2: WHERE AND WHY MOLD GROWS

Knowledge Test

Lesson 1 Introduction to Mold Growth

Question 1: The way to control mold growth is to control moisture.

- A. True
- B. False

Lesson 2 Moisture Problems

Question 2: Inadequate building ventilation can lead to mold growth.

- A. True
- B. False

Lesson 3 Humidity

Question 3: Using a stove can increase the humidity in a room.

- A. True
- B. False

Lesson 3 Humidity

Question 4: Condensation can be a sign of high humidity.

- A. True
- B. False

Lesson 4 Ventilation Humidity Problems - Heating, Ventilation, and Air Conditioning (HVAC) System

Question 5: If duct work insulation becomes contaminated with mold, the insulation must be removed and replaced.

- A. True
- B. False

Lesson 4 Ventilation Humidity Problems - Heating, Ventilation, and Air Conditioning (HVAC) System

Question 6: Drain pans should be sealed so that water does not get out.

- A. True
- B. False

CHAPTER 2: WHERE AND WHY MOLD GROWS

Knowledge Test

Lesson 5 Structural Integrity and Mold Growth

Question 7: Mold can cause cosmetic damage to building furnishings.

- A. True
- B. False

CHAPTER 2: WHERE AND WHY MOLD GROWS

Answer Key

Question 1: Answer: "A" TRUE

Eliminating all mold and mold spores indoors is virtually impossible, but controlling indoor moisture will control the growth of indoor mold.

Question 2: Answer: "A" TRUE

Some moisture problems have been linked to changes in building construction practices since the 1970s. These practices led to buildings that are tightly sealed but, in some cases, lack adequate ventilation. Without adequate ventilation, moisture may build up indoors and mold may grow.

Question 3: Answer: "A" TRUE

Humidity levels can rise in a building as a result of the use of humidifiers, steam radiators, moisture-generating appliances such as dryers, and combustion appliances such as stoves. Cooking and showering also can add to indoor humidity.

Question 4: Answer: "A" TRUE

Condensation can be a sign of high humidity. When warm, humid air contacts a cold surface, condensation may form.

Question 5: Answer: "A" TRUE

If the HVAC system has insulation on the inside of the air ducts, and the insulation gets wet or moldy, it should be removed and replaced because the material cannot be cleaned effectively. Please note that there are no antimicrobial products or biocides approved by EPA for use on lined ductwork.

Question 6: Answer: "B" FALSE

Removing standing water under the cooling coils of air handlers by making sure the drain pans slope toward the drain and the drain is flowing freely.

Question 7: Answer: "A" TRUE

Molds gradually destroy whatever they grow on, so preventing mold growth also prevents damage to building materials and furnishings.

Question 8: Answer: "B" FALSE

When mold is suspected of causing damage to the structural integrity of a building, a structural engineer or other professional with relevant expertise should be consulted.

CHAPTER 2: WHERE AND WHY MOLD GROWS

Answer Key

Question 9: Answer: "B" FALSE

Crawl spaces where relative humidity (RH) is high are common sites of hidden mold growth, particularly if the crawl space has a bare earth floor. The moisture that accumulates in a crawl space may also enter another part of the building and contribute to mold growth there. Moisture can pass from a crawl space into a building through cracks in walls, floors, and ceilings.

CHAPTER 3: FINDING MOLD AND MOISTURE

Knowledge Test

Lesson1 Where to Look for Mold Contamination - Building Investigation

Question 1: Mold can grow on wet carpet and wet carpet backing or padding if they are not dried quickly.

- A. True
- B. False

Lesson 1 Where to Look for Mold Contamination - Building Investigation

Question 2: In which of the following areas of a building may mold problems be found?

- A. The crawlspace
- B. In pipe chases
- C. Behind walls
- D. All of the above

Lesson 1 Where to Look for Mold Contamination - Building Investigation

Question 3: A contaminated ventilation system (HVAC system) may spread mold throughout the building.

- A. True
- B. False

Lesson 2 Equipment

Question 3.5: Personal protective equipment (PPE) is never needed for mold investigations.

- A. True
- B. False

Lesson 3 Mold Sampling Considered

Question 6: Mold sampling should be conducted whenever a mold remediation is planned.

- A. True
- B. False

CHAPTER 3: FINDING MOLD AND MOISTURE

Answer Key

Question 1: Answer: "A" TRUE

If there has been a leaking pipe in the basement, for example, items such as carpets, paneling, and drywall there should be checked for water damage or mold growth. It is important to dry items quickly to prevent mold growth; in most cases, items dried within 24-48 hours will not become moldy.

Question 2: Answer: "D" All of the Above

Possible locations of hidden mold also include damp areas behind walls and in crawlspaces, inside pipe chases and utility tunnels (areas in walls where water and other pipes are run), on acoustic liners in ventilation ducts, and on roof materials above ceiling tiles.

Question 3: Answer: "A" TRUE

In some cases, water may enter the ventilation ducts from a leaky pipe. A contaminated ventilation system may spread mold spores throughout the building and should be considered a high priority for investigation and repair.

Question 5: Answer: "B" FALSE

The use of personal protective equipment (PPE) should be considered during a mold investigation. The primary function of PPE is to avoid inhaling mold and mold spores and to avoid mold contact with the skin and eyes. Professional judgment should be used when selecting PPE.

Question 6: Answer: "B" FALSE

Usually, if the mold can be seen, sampling is unnecessary. After finding mold, the goal is to clean it up and fix the underlying water problem. Unless the results would or could make a change in your plans, you don't need to sample.

CHAPTER 4: GENERAL REMEDIATION ISSUES

Knowledge Test

Lesson 1 Dry Quickly

Question 1: Quick action to address a moisture problem may make an extensive mold remediation effort unnecessary.

- A. True
- B. False

Lesson 1 Dry Quickly

Question 2: Which of the following types of materials may have to be discarded when contaminated with mold or mold spores?

- A. Hard surfaces such as linoleum or tile
- B. Cellulose or fiberglass insulation
- C. Plastics and metals
- D. All of the above

Lesson 2 Assess Mold Problem

Question 3: It is important to assess the size and extent of the mold problem before starting remediation.

- A. True
- B. False

Lesson 2 Assess Mold Problem

Question 4: You should consider using personal protective equipment (PPE) if disturbing mold during a building assessment.

- A. True
- B. False

Lesson 2 Assess Mold Problem

Question 5: Minimum PPE includes:

- A. N-95 respirator
- B. Gloves
- C. Hat
- D. Goggles
- E. A, B, and D

CHAPTER 4: GENERAL REMEDIATION ISSUES

Knowledge Test

Lesson 3 Remediation Plan

Question 6: A remediation plan should cover:

- A. The containment and removal techniques to be used to avoid the spread of mold
- B. The use of PPE
- C. Steps to correct moisture or water problems in order to prevent the recurrence of mold
- D. All of the above

Lesson 4 Mold Remediation Procedures

Question 8: Remediation and cleanup activities should be scheduled for off-hours, when building occupants are less likely to be affected.

- A. True
- B. False?

CHAPTER 4: GENERAL REMEDIATION ISSUES

Answer Key

Question 1: Answer: "A" TRUE

A dry item before mold grows, if possible. In most cases, mold will not grow if wet or damp items are dried within 24-48 hours.

Question 2: Answer: "B" Cellulose or fiberglass insulation

Some water-damaged items, including ceiling tiles, cellulose and fiberglass insulation, drywall and gypsum board, and books and papers, may have to be discarded. If valuable or important books, documents, or other items are moldy or water damaged, you may wish to consult a restoration, water damage, or remediation expert.

Question 3: Answer: "A" TRUE

Before planning a remediation effort, the size and extent of the mold problem and any continuing moisture problems should be assessed. A remediation generally can be divided into small (less than 10 square feet of mold), medium (10-100 square feet of mold), and large jobs (more than 100 square feet of mold).

Question 4: Answer: "A" TRUE

Remediating mold and moisture problems may be complex, and it may increase workers' exposure to mold unless personal protective equipment (PPE) is used.

Question 5: Answer: "E" N-95 respirator, Gloves, and Goggles

Consider using PPE if disturbing mold during a building inspection, assessment, or walkthrough, for example. The minimum PPE is an N-95 respirator (available at most hardware stores), gloves, and goggles.

Question 6: Answer: "D" All of the above

The remediation plan should include: Whether containment will be required; what level of PPE will be used; how the water or moisture problem will be fixed so the mold problem does not recur; and, how the moldy building materials will be removed to avoid spreading mold.

Question 8: Answer: "A" TRUE

If possible, remediation activities should be scheduled during off-hours, when building occupants are less likely to be affected.

CHAPTER 5: LARGE AREAS AND OTHER SPECIAL CONCERNS

Knowledge Test

Lesson 1 Remediating Large Areas of Mold Contamination

Question 1: Full containment requires:

- A. Double-layer polyethylene sheeting
- B. A decontamination chamber
- C. Respirators to be worn inside the containment area
- D. All of the above

Lesson 2 Mold Remediation in Heating, Ventilation, Air Conditioning (HVAC) Systems

Question 2: Mold-contaminated HVAC systems should be assessed by professionals.

- A. True
- B. False

Lesson 3 Confined Spaces

Question 3: Remediation projects in confined spaces require increased worker training to prevent problems due to poor lighting, communication, and mobility in the space.

- A. True
- B. False

CHAPTER 5: LARGE AREAS AND OTHER SPECIAL CONCERNS

Answer Key

Question 1: Answer: "D" All of the above

Containment should be designed to prevent the movement of mold spores from one area of the building to another.

Question 2: Answer: "A" TRUE

Mold remediation involving a heating, ventilation, and air conditioning (HVAC) system should be done only by professionals experienced in working with HVAC systems.

Question 3: Answer: "A" TRUE

In general, work in confined spaces should be conducted only by trained professionals who have the equipment required by OSHA to deal with the inherent dangers in this type of environment.

CHAPTER 6: CONTAINMENT AND PERSONAL PROTECTIVE EQUIPMENT (PPE)

Knowledge Test

Lesson 1 Overview of Containment

Question 1: Professional judgment should be used when determining how and when to use containment.

- A. True
- B. False

Lesson 2 Limited Containment

Question 2: When using limited containment, which of the following materials should be used to enclose a contaminated area?

- A. Plywood
- B. Fabric, blankets, or old sheets
- C. 6-mil polyethylene sheeting
- D. Newspaper

Lesson 3 Full Containment

Question 3: When should full containment be used?

- A. When more than 100 square feet of mold is found
- B. When high levels of airborne dust or mold spores are likely
- C. When intense or long-term exposures are expected
- D. All of the above

Lesson 3 Full Containment

Question 4: A remediation worker or other individual in a full containment area must wear a respirator while in the remediation area and airlock.

- A. True
- B. False

Lesson 4 Personal Protective Equipment (PPE)

Question 5: N-95 respirators provide eye protection.

- A. True
- B. False

CHAPTER 6: CONTAINMENT AND PERSONAL PROTECTIVE EQUIPMENT (PPE)

Answer Key

Question 1: Answer: "A" TRUE

Although, in general, the size of the contaminated area indicates the level of containment required, the final choice of containment level should be based on professional judgment.

Question 2: Answer: "C" 6-mil polyethylene sheeting

Limited containment consists of a single layer of 6-mil fire-retardant polyethylene sheeting enclosing the moldy area. Access to the contained area is through a slit entry covered by a flap on the outside of the containment area. Limited containment is generally recommended for areas involving 10 to 100 square feet of mold contamination.

Question 3: Answer: "D" All of the above

Full containment is recommended for the cleanup of mold-contaminated surface areas of more than 100 square feet and when intense or long-term exposures are expected. It is also recommended if it appears likely that the occupant's space would be further contaminated if full containment were not used because high levels of airborne dust or mold spores are likely.

Question 4: Answer: TRUE

Respirators should be worn until remediation workers are outside the decontamination chamber.

Question 5: Answer: "B" FALSE

An N-95 respirator covers the nose and mouth, filters out 95 percent of airborne particulates, and is available in most hardware stores. It does not provide eye protection.

CHAPTER 7: EVALUATING THE REMEDIATION

Knowledge Test

Lesson 1 Completing Mold Remediation - Fix the water problem and clean up the mold

Question 1: Which of the following steps are necessary for determining the effectiveness of a mold removal project?

- A. Determine that the moisture problem has been corrected
- B. Visually ensure that water damaged and moldy materials have been removed from the site
- C. Check to see that individuals returning to the site are not experiencing any health complaints or physical symptoms
- D. All of the above

Lesson 2 Considering Bioaerosol Sampling

Question 2: Sampling must always be conducted in order to ensure that the remediation process was successful.

- A. True
- B. False

CHAPTER 7: EVALUATING THE REMEDIATION

Answer Key

Question 1: Answer: "D" All of the above

You should revisit the site(s) shortly after remediation, and it should show no signs of water damage or mold growth. People should be able to occupy or re-occupy the space without health complaints or physical symptoms.

Question 2: Answer: "B" FALSE

Bioaerosol sampling (air sampling for mold or other biological contaminants) usually is not necessary to determine remediation effectiveness. In fact, bioaerosol sampling may be less effective at determining the success of remediation than visual and sensory surveys of the area.

CHAPTER 8: COMMUNICATING WITH THE BUILDING OCCUPANTS

Knowledge Test

Lesson 1 Communicate When You Remediate

Question 1: It is best to keep a mold remediation project a secret from building occupants as long as possible.

- A. True
- B. False

CHAPTER 8: COMMUNICATING WITH THE BUILDING OCCUPANTS

Answer Key

Question 1: Answer: "B" FALSE

Communication with building occupants is essential for successful mold remediation. Some occupants will naturally be concerned, and their concern may increase if they believe information is being withheld. The status of the building investigation and remediation should be openly communicated, along with information on known or suspected health risks.

CHAPTER 9: PREVENTION

Knowledge Test

Lesson 1 Mold Prevention

Question 1: What is the key to mold prevention?

- A. Improving ventilation
- B. Maintaining a warm temperature
- C. Controlling moisture
- D. Closing windows

CHAPTER 9: PREVENTION

Answer Key

Question 1: Answer: "C" Controlling moisture

The key to mold prevention is moisture control. Keep the building and furnishings dry. When things get wet, dry them quickly (24-48 hours). Perform routine maintenance, cleaning, and repairs.