



Training Solutions, Delivered!

ASBESTOS AWARENESS

**Leader's Guide, Fact Sheet
& Quiz**

Item Number: 3065

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This easy-to-use Leader's Guide is provided to assist in conducting a successful presentation.

PREPARING FOR THE MEETING

Here are a few suggestions for using this program:

- a) Review the contents of the Fact Sheet that immediately follows this page to familiarize yourself with the program topic and the training points discussed in the program. The Fact Sheet also includes a list of Program Objectives that details the information that participants should learn from watching the program.
- b) If required by your organization, make an attendance record to be signed by each participant to document the training to be conducted.
- c) Prepare the area and equipment to be used for the training. Make sure the watching environment is comfortable and free from outside distractions. Also, ensure that participants can see and hear the TV screen or computer monitor without obstructions.
- d) Make copies of the Review Quiz included at the end of this Leader's Guide to be completed by participants at the conclusion of the presentation. Be aware that the page containing the answers to the quiz comes before the quiz itself, which is on the final page.

CONDUCTING THE PRESENTATION

- a) Begin the meeting by welcoming the participants. Introduce yourself and give each person an opportunity to become acquainted if there are new people joining the training session.
- b) Introduce the program by its title and explain to participants what they are expected to learn as stated in the Program Objectives of the Fact Sheet.
- c) Play the program without interruption. Upon completion, lead discussions about your organization's specific policies regarding the subject matter. Make sure to note any unique hazards associated with the program's topic that participants may encounter while performing their job duties at your facility.
- d) Hand out copies of the review quiz to all of the participants and make sure each one completes it before concluding the training session.

3065 ASBESTOS AWARENESS FACT SHEET

LENGTH: 21 MINUTES

Production Year: 2018

PROGRAM SYNOPSIS:

As hard as it is to believe today, at one time people called asbestos the "miracle material." While this "miracle material" seemed so beneficial for so many things, it turns out that it isn't good for people. In fact, asbestos can cause serious illnesses, even kill us. Employees need to understand the asbestos hazards they may encounter in their workplace, the federal laws and company policies that are designed to protect them from these hazards, and what they can do to prevent exposure to asbestos and go home safe at the end of every day. This program is designed to present fundamental information on asbestos, its hazards and how to avoid them.

PROGRAM OBJECTIVES:

Upon completion of the program, viewers should:

- Understand the health risks posed by asbestos.
- Understand the purpose of OSHA's Asbestos Standard.
- Understand the purpose and content of an Asbestos Management Plan.
- Be able to recognize asbestos hazards in their workplace.
- Know the three types of asbestos-containing materials they are most likely to encounter.
- Know how to respond to any asbestos hazards they encounter on the job.
- Know safe practices for cleaning up and disposing of asbestos-containing materials.
- Know how to decontaminate themselves and their equipment from asbestos safely.

PROGRAM OUTLINE:

BACKGROUND

- As hard as it is to believe today, at one time people called asbestos the "miracle material".
- Not only is it a natural mineral that can be dug out of the ground by the ton, but asbestos is lightweight, fireproof, chemical resistant, bacteria resistant, and it doesn't conduct electric current.
- As a result, it worked well for soundproofing, and was a great insulator against heat, cold and electricity.
- But while this "miracle material" seemed so useful and beneficial for so many things, it turns out that it isn't good for people.
- In fact, asbestos can cause serious illnesses, even kill us. And it can still be found in many homes and commercial buildings.
- In this program, we'll take a close look at the asbestos hazards you may encounter in your workplace. We'll also discuss the laws that are designed to protect you from these hazards and what you can do to ensure that you go home safe at the end of every day, even if you're working around asbestos.

ASBESTOS: "MIRACLE" AND MENACE

- Before its health hazards were fully understood, asbestos was used in literally thousands of products, from piano parts to electric blankets, carpeting to toasters, record albums, theater curtains, buttons on clothing, and automobile brake pads... all sorts of things.
- Because of its unique qualities, asbestos found many uses in the construction industry as well. It was incorporated in plaster and wallboard, to add strength and stiffness, sprayed onto walls, ceilings, and steel girders as fire and soundproofing, and wrapped around pipes, boilers, heating ducts and other utility systems as insulation.
- Of course, when the health risks of asbestos became known, the products that contained asbestos were taken off the market.
- But the asbestos that had been "built in" to so many building materials has been much tougher to remove. This is why asbestos-containing materials (ACMs) can be found in many buildings even now.
- Because of this, the Occupational Safety and Health Administration (OSHA) created a standard to protect workers, including maintenance, engineering and custodial staff, who could be exposed to asbestos on the job.

- Employee training plays an important part in the Asbestos Standard. If there's risk of exposure to asbestos in your workplace, you will receive training in how exposure to asbestos can affect your health, where asbestos-containing material (ACMs) and materials that may contain asbestos are located in your facility, how to recognize asbestos hazards, how to deal with these hazards safely.

THE HEALTH EFFECTS OF ASBESTOS

- Most rocks and minerals break down into tiny particles, like grains of sand. But asbestos breaks down into fibers, like strands of rope.
- Asbestos fibers can be so small that they are invisible to the naked eye. In fact, you need a very powerful microscope to see them. But don't let their small size fool you.
- Asbestos fibers are as strong as steel, and if they find a way into your body, they can seriously affect your health.
- Because asbestos fibers are so small, they're basically invisible, and they're so light that once they are stirred up, they can float in the air for a long time. This means that you can easily inhale asbestos fibers without even knowing that they are there! And once asbestos fibers get into your lungs, they can do severe damage.
- While you don't experience the effects immediately, the fibers irritate lung tissue and can eventually lead to a disease known as "asbestosis."
- Asbestosis makes it hard to breathe, and leads to the enlargement of the heart, which can ultimately be fatal.
- Long-term exposure to asbestos fibers can cause cancer in the lungs as well and can also lead to a rare cancer known as "mesothelioma", which affects the tissues that line the chest and abdomen.
- Asbestos fibers are especially hazardous to people who smoke. Cigarette smoke breaks down the lungs' natural defenses against the foreign substances that get into them. As a result, smokers are over 50 times more likely to become sick after long-term exposure to asbestos.
- So, if you're a smoker and you are going to be working around asbestos, you should seriously consider kicking the cigarette habit. Your employer can provide you information on effective programs that can help. Talk to your supervisor to find out more.
- But your lungs aren't the only place where asbestos can cause trouble. Fibers that get into your mouth or that land on food or drink can be swallowed, and lead to cancers of the digestive tract.
- Obviously asbestos is a significant health hazard, and it's important to know how to protect yourself from it.

TYPES OF ASBESTOS HAZARDS

- While asbestos can have serious and often fatal effects on your health, there are ways you can avoid these hazards. You can make a good start by understanding how and where you're likely to encounter asbestos on the job.
- If there is asbestos or asbestos-containing materials in your workplace, your employer will have conducted air monitoring tests to determine how much asbestos contamination, if any, exists in the air. If the tests reveal unsafe levels of airborne asbestos, OSHA requires your facility to create a written control program that will reduce your asbestos exposure to safe levels.
- However, the Environmental Protection Agency (EPA) requires schools to develop and implement a written "Asbestos Management Plan" if ACMs are even present on the site, regardless of the airborne asbestos levels. These programs serve as blueprint for keeping you, your coworkers and others safe from asbestos hazards.
- Your facility's plan is available to all employees, and you should take the time to become familiar with it. The plan will include a detailed list of the places where you might encounter asbestos in your facility. These areas must also be identified with warning signs or labels. If you don't find a sign or label posted where you think asbestos may be present, notify your supervisor immediately.
- Materials that contain asbestos are divided into two general categories, "friable" and "non-friable."
- "Friable" materials can be easily damaged, broken apart or crumbled, all of which can release dangerous asbestos fibers into the air.
- While "non-friable" materials can also release asbestos fibers, they are more difficult to damage.
- When asbestos-containing materials are undamaged, they are not releasing asbestos fibers into the air, so there is no threat to your health.
- The health hazards begin when the materials are bumped, scraped, peeled, water damaged or otherwise disturbed, and release their asbestos fibers.
- So, it's crucial for you to be able to recognize damage when you see it, and know what to do if you find it.

THERMAL SYSTEM INSULATION (TSI)

- There are three types of asbestos-containing materials you are most likely to encounter: Thermal System Insulation, Surfacing materials and floor and ceiling tiles.
- Thermal System Insulation (TSI) is the most common type of "friable" asbestos material. You will find TSI on boilers, utility pipes, ductwork and HVAC systems.
- Be on the look-out for places where the insulation is torn, the material has been gouged out or peeled off or water, oil or other substances have caused it to deteriorate.
- Remember, even a small tear can create a serious hazard.
- Also look for dust or debris that has built up on floors or other surfaces. It's a clue that some type of damage may have occurred nearby.
- If you do find damage, you should act immediately to reduce the potential for exposure to asbestos. Secure the area if possible. Post a sign warning people to stay away. Then notify your supervisor or your facility's safety or environmental manager so they can arrange for repair and clean-up.
- You should take these steps even if you aren't sure that the material contains asbestos. With asbestos, the cautious approach is always best, because you're better safe than sorry.
- If the repair and clean-up of asbestos-containing material needs to be done before you can start your work, talk to your supervisor.
- You should never handle or remove any asbestos containing material yourself unless you have been authorized and are properly trained and equipped for the work. Normally, other qualified people will be brought in to do the job.

SURFACING MATERIALS, FLOOR AND CEILING TILES

- At one time, asbestos containing materials were sprayed, troweled, or otherwise applied to girders, ceilings and walls as fireproofing and soundproofing: sometimes even just for decoration. These ACMs are sometimes known as surface materials.
- Because surfacing materials that contain asbestos are almost always friable, they are prone to damage, so they should be handled with extreme caution.
- Over time, surfacing ACMs tend to peel and fall away from the surfaces they were applied to. This produces dust and debris that contain asbestos fibers. If you encounter this type of material, do not try to clean it up by sweeping or shoveling. This could easily stir up asbestos fibers into the air, where you could inhale them.
- Instead, secure the area immediately, post warning signs and report the problem. Your supervisor will arrange for the material to be cleaned up and disposed of safely.
- Another place you may sometimes find asbestos is right under your feet.
- Floor tiles can contain asbestos, and so can the "mastic" or glue that was used to fasten them down. Although floor tiles are non-friable, they can release fibers if they're damaged. Cuts, grooves, scrapes and cracks in a tile are all signs of potential problems.
- If you notice damaged floor tiles you should again secure the area, post warning signs, and notify your supervisor.
- When you are working around your facility, do not start grinding, cutting or breaking apart any floor tiles before you know whether they contain asbestos. Since those activities can all release asbestos fibers, so you should first determine if there's an exposure risk.
- If you need to strip a floor's finish, use "wet methods." Dampen the floor with water so asbestos fibers are less likely to get into the air. Make sure you're using a low abrasion pad and keep the stripping machine's speed below 300 RPMs.
- Some ceiling tiles can contain asbestos as well, and what's more, they're generally friable. Treat all ceiling tiles as asbestos-containing materials until it has been determined that they are not. Check for broken corners, water damage or other problems. Handle the tiles carefully. If you find damage, take the same steps you would take for any other potential asbestos exposure hazard.

PROTECTIVE EQUIPMENT AND SAFE WORK PRACTICES

- Depending on the job you do, you may be asked to assist in the repair and clean-up of asbestos at your facility. Getting this type of work done safely begins with putting on the proper protective gear.
- You will need to wear a respirator that uses special filters to prevent you from inhaling any asbestos fibers.
- Before starting to work you should undergo a "fit test", to make sure the respirator gives you complete protection. It needs to be the right size and shape for your face. If there are any gaps between your face and the respirator mask, asbestos fibers could "leak" through.

- Once you've got a good fit, you'll be trained in how to put the respirator on correctly, how to clean and maintain it as well as how and when to change its filter cartridges.
- And even though asbestos isn't a "skin-contact" hazard, you should also wear disposable overalls. They make it possible for you to clean yourself off more effectively and conveniently when you're done.
- There are some important things to remember about the clean-up process itself.
- Never use compressed air to clear away substances that may contain asbestos. Use "wet methods" instead. Moisten the materials with water at least three times before you disturb them, during the clean-up process, and while you're finishing up afterwards. You should do this whether you're using a broom, shovel or vacuum.
- Never use an ordinary vacuum cleaner for doing asbestos clean-up. Even with industrial or shop-grade type machines, asbestos fibers can still get through the filters and be blown out with the exhaust. You can prevent this by using a vacuum fitted with a "High Efficiency Particulate Air" ("HEPA") filter. HEPA filters are designed to catch and trap asbestos fibers safely.
- To eliminate asbestos contamination as completely as possible, you should give the area a final "wet wipe" with a damp cloth after vacuuming. The cloth that you use for the wet wipe will contain asbestos fibers afterwards, so be sure to dispose of it appropriately.
- OSHA standards require proper bagging and labeling of all asbestos-containing materials. Be sure to use asbestos disposal bags that are specially made for this purpose.
- You will need to fill out a generator label with the name and address of your facility, and attach it to the disposal bag, so others can tell what's in the bag and where it came from.
- If an asbestos disposal bag that you're using gets torn, seal the tear with tape immediately. Place the damaged bag inside a new bag and seal it. Put a filled-out generator label on the new outer bag.
- And remember, asbestos is a regulated waste, so you can't just put it in the trash, or bury it out back. It must be disposed of in a licensed landfill.
- OSHA safety standards also require regular monitoring of asbestos levels in the air, so you may be asked to wear an air sampling device during your clean-up activities.
- To collect the samples, an air pump will be strapped to your waist and a cassette will be taped to the front of your shoulder. This will catch any asbestos fibers that are in the air. These samples help your facility to make sure that appropriate precautions are taken to protect you and your coworkers while you work in areas that may have ACMs.

DECONTAMINATION AND MEDICAL SURVEILLANCE

- After doing any work with asbestos-containing materials, you must thoroughly clean and "decontaminate" your equipment yourself. A special decontamination and changing area will be set up for this. These areas are usually isolated, to prevent any spread of asbestos fibers back into the facility after clean-up.
- Never eat, drink or smoke in a decontamination area. It increases your risk of inhaling or swallowing asbestos fibers.
- When decontaminating your overalls, don't simply brush off dust or debris. That throws asbestos fibers into the air. Instead, you need to use a HEPA vacuum to safely remove contamination from your overalls before you take them off. Your company will provide a vacuum for you.
- Remember, because your overalls have been contaminated with asbestos fibers, they are considered to be regulated waste, even after vacuuming. So they must be disposed of properly, in an asbestos disposal bag.
- You'll also need to use the HEPA vacuum to clean off any equipment you worked with in the asbestos area, as well as the outsides of the disposal bags you've used.
- As a further precaution against spreading asbestos fibers into the facility, you should change out of your work clothes and back into your street clothes as part of the decontamination process.
- Contaminated work clothes should be stored in closed containers. Your employer is responsible for having them transported safely and cleaned, repaired or replaced as needed.
- "Washing-up" is always a good idea after you've handled anything hazardous, and asbestos is no exception. Scrub your hands and face thoroughly with soap and water before leaving work. In fact, you should shower if possible.
- If you can't shower at work, be sure to take a shower immediately when you get home. This way you won't expose your family or friends to asbestos fibers.
- Even when all of the correct exposure control procedures are used, it may still be possible to be exposed to some level of asbestos in your workplace.
- To monitor for potential exposure, and as a safeguard against future health problems, your facility may ask you to participate in a medical surveillance program. As part of the program, you will make regular visits to a doctor, at which

time you may be given "breathing capacity" tests, or have X-rays taken of your lungs. All the surveillance program procedures and treatments will be provided free of charge. Talk to your supervisor for more information.

CONCLUSION

- As we've seen, asbestos can pose real health risks to people who work with or around it. But there are ways that you and your coworkers can guard against asbestos exposure. Let's review.
- Exposure to asbestos can cause lung cancer, mesothelioma, and other serious health problems.
- To reduce health risks to employees who work around asbestos containing materials, OSHA has issued specific safety regulations requiring employers to test for unsafe levels of airborne asbestos.
- If unsafe levels are found, the facility must develop a written control program that will reduce your asbestos exposure to safe levels.
- EPA regulations require schools to develop a written asbestos management plan if ACMs are even present in the facility.
- The OSHA standard also requires employees to be trained to recognize asbestos hazards, as well as how they can keep themselves and their coworkers safe from these hazards.
- There are several ways that you can protect yourself from exposure to asbestos, including using safe work practices and wearing personal protective equipment.
- This may be a lot to take in, but it's important information. By understanding the hazards of asbestos and what you can do to avoid them, you can reduce your chances of exposure and help to make your workplace a safer place for everyone.

ASBESTOS AWARENESS

ANSWERS TO THE REVIEW QUIZ

1. a
2. a
3. a
4. a
5. a
6. b
7. a
8. a
9. b
10. b

**ASBESTOS AWARENESS
REVIEW QUIZ**

The following questions are provided to determine how well you understand the information presented in this program.

Name _____ Date _____

1. Asbestos fibers are so small that they can only be seen with a microscope.
 - a. True
 - b. False

2. If there is a risk of asbestos exposure in your workplace, OSHA's Asbestos Standard requires your employer to train you on how to recognize asbestos hazards and deal with them safely.
 - a. True
 - b. False

3. Inhaling asbestos fibers is 50 times more hazardous for people who smoke.
 - a. True
 - b. False

4. Asbestos can be found in some floor and ceiling tiles.
 - a. True
 - b. False

5. Asbestos that had been "built in" to so many building materials has been much tougher to remove. This is why asbestos-containing materials (ACMs) can be found in many buildings even now.
 - a. True
 - b. False

6. A slight deterioration of asbestos-containing insulation will usually not result in a release of fibers.
 - a. True
 - b. False

7. It is very important to wash your hands and face after coming into contact with asbestos-containing materials.
 - a. True
 - b. False

8. When asbestos fibers are stirred up into the air they can continue to float there for a long time.
 - a. True
 - b. False

9. After working with asbestos-containing materials, you should wait until you get home before washing your face and hands.
 - a. True
 - b. False

10. The first step in the asbestos decontamination process is brushing asbestos-containing dust or debris off of your protective clothing.
 - a. True
 - b. False