TEST ANSWERS: SILICA

The *BSO Plus Safety Topic* is a review designed from the BSO Plus agenda. This safety topic is your way to stay current on the safety information over the 3 years between BSO Plus and BSR.

1. **Crystalline silica is easily identified by the human eye.**
   a. True
   b. False

   RATIONALE: Silica is one of the most common hazards on a worksite, particularly in the construction, oil and gas, manufacturing, and agriculture industries. Crystalline silica is the most abundant mineral on earth, and its particles are very small and cannot be seen.

2. **Exposure to breathable crystalline silica can cause: (Circle all that apply)**
   a. Silicosis
   b. Asbestosis
   c. Bronchitis
   d. Emphysema

   RATIONALE: Long term exposure to this crystalline silica dust can result in silicosis - a lung disease caused by inflammation and scarring in the upper lobes of the lungs, for which there is no cure. Exposure has been also associated with other respiratory diseases, such as lung cancer, chronic obstructive pulmonary disease (including bronchitis and emphysema), as well as kidney and immune system diseases.

3. **Materials common on construction sites where silica can be found include: (Circle all that apply)**
   a. Granite
   b. Concrete
   c. Sand
   d. Soil

   RATIONALE: Silica is found in many materials common on construction sites, including soil, sand, concrete, masonry, rock, granite, and landscaping materials.

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4. Airborne respirable crystalline silica particulate, or dust, may be generated by: (Circle all that apply)

a. Abrasive blasting of concrete
b. Dry sweeping of concrete or dust
c. Drilling of rock

d. Sawing of metal

RATIONALE: Airborne respirable crystalline silica particulate, or dust, may be generated by the following tasks:

- Abrasive blasting of concrete
- Crushing loading, jack hammering, drilling, sawing of rock, concrete or masonry
- Dry sweeping or pressurized air-blowing of concrete or dust
- Removal of after-service Refractory Ceramic Fibre and Calcium Magnesium Silicate Insulation

5. Workers can protect themselves from silica exposure by:

a. Attending training sessions
b. Using correct PPE
c. Using water to prevent dust

d. All of the above

RATIONALE: You must always know the control plan for silica in your workplace and recognize that you may still come into contact with silica. Being aware of where you may encounter it can help to keep you safe.