

Asbestos in the Environment

What is Asbestos?

- Asbestos refers to a group of six different fibrous minerals which occur naturally in the soil and rocks of some areas.
- Asbestos fibers are hard to see with the naked eye.
- Chrysotile asbestos is the main type found in the Clear Creek Management Area (CCMA).
- Asbestos fibers are resistant to heat and have been used in a variety of man-made products for insulation and heat-resistance.
- Asbestos fibers are very tough and stay in the same form in the environment for a long time.

Why is there Asbestos in the CCMA?

- The CCMA is located on a formation of naturally occurring serpentine rock and soil which contains high concentrations of asbestos.
- Asbestos mining activities in the area also contributed to the asbestos at CCMA.
- In areas where there is naturally occurring asbestos from serpentine rock, the percentage of asbestos in the soil ranges from 1% to as much as 50% in areas where asbestos has been mined.

How does Asbestos enter the Environment?

- During geological processes, the crushing of serpentine rock results in asbestos which is more readily available to the environment.
- The mining industry and roads built to support the mining have broken up the asbestos causing it to disperse.
- Asbestos fibers are also dispersed in the environment by wind and water.
- Asbestos fibers stay suspended in the air for lengthy periods but ultimately settle onto the soil.

How does Asbestos get into my Body?

- Asbestos fibers in the air can get into your lungs when you breathe.
- Asbestos fibers that get into your mouth can be swallowed into the stomach.
- Asbestos fibers are not likely to penetrate the skin.

How might my Family or I be Exposed to Asbestos while Visiting CCMA?

- Any time you visit the CCMA you can be exposed to asbestos fibers, especially during the dry season.
- Because motorcycles raise considerable dust, if you watch motorcycle races, you may inhale asbestos fibers.
- If you are camping, especially in dry, dusty areas, you could be exposed to asbestos fibers which are in the air, dust and soil in the camping area.
- Water in the creeks in the CCMA may contain asbestos fibers and heavy metals.
- Asbestos fibers in dust and mud from the CCMA can remain on your cloths and vehicles when you leave the CCMA.

How much Asbestos is Too Much?

- Low levels of asbestos may not be harmful to your health.
- Asbestos is measured by the number of fibers (f) that are present in a cubic centimeter (cc) of air, or f/cc.
- You should avoid exposure to asbestos when the concentration is greater than 0.1 fibers per cubic centimeter, or 0.1 f/cc. These concentrations of asbestos in the air do sometimes occur at the CCMA, especially during dry and dusty conditions.

Children and Asbestos Exposure?

Parents and guardians should be aware that children are more likely than adults to suffer from adverse long term health effects after asbestos exposure.

In the Clear Creek Area

Smoking and Asbestos Exposure?

Smoking cigarettes dramatically increases the chance of getting lung cancer from asbestos exposure.

How Could Asbestos Affect my Health?

Most of the information on the health effects of asbestos in humans comes from studies of people who were regularly exposed to high levels of asbestos in the workplace. Any exposure to asbestos involves some risk, but for people who are exposed to low levels of asbestos for short periods the risk should be minimal.

However, asbestos has been known to cause cancer in humans who have been exposed to high levels on a regular basis. The two most common cancers found in these situations are lung cancer and mesothelioma, a rare cancer of the lining that surrounds the lungs and the stomach.

The non-cancer health effect most commonly associated with high levels of asbestos exposure is asbestosis, which is a scarring of the lung tissue.

- If you have asbestosis, your lungs cannot expand and contract like normal lungs, which makes it difficult to breath.
- Asbestosis is normally only seen in people who received regular, high level exposure to asbestos.
- Both cancer and asbestosis can take twenty to thirty years or more to develop after exposure.

Is there a Medical Test to Determine Whether I have been Exposed to Asbestos?

There are no tests to determine effects from low level asbestos exposure.

- Chest x-rays are only useful for identifying damage from exposure to asbestos from much higher exposure than you would receive from a visit to the CCMA.
- Because asbestos-related diseases take many years to develop, effects from recent, low dose exposure cannot be seen on a chest x-ray.

Precautions to take when Visiting the CCMA:

- Avoid areas where it is dusty or windy.
- **Never** drink the water from the streams or springs.
- Wash any vehicle that was used at CCMA before returning home.
- Wash clothing worn at CCMA separately from your other clothes.
- If digging in dry dirt, try to minimize the amount of dust that is disturbed.
- **Do not** ride Off-Highway Vehicles (OHV's) around campgrounds or Staging Areas. This creates dust.
- If riding an OHV in a group, spread out along a trail, and don't ride in another rider's dust.

Before Visiting the CCMA

Call the Hotline at (831) 630-5060 to get recorded information about airborne asbestos concentrations and weather conditions. If the weather is hot, dry, and dusty, avoid the CCMA. If you would like clarification about the reading of the asbestos fiber reading, call the Hollister Office of the Bureau of Land Management at (831) 630-5000

For Further Information

Call the United States Environmental Protection Agency (EPA) at (415) 972-3148.