

ENVIRONMENTAL HOME

Once widely used, asbestos leaves behind hazards

By Dan Howard

For TRIB TOTAL MEDIA

If we took a poll, probably a vast majority of people would recognize asbestos as a hazard. We know that it gets ripped out of schools and other public buildings. We recognize that people die from asbestos and that there are big class action lawsuits about the mineral.

But there is a lot more we should know about this hazard previously thought of as a miracle product.

The use of asbestos dates to the ancient Greeks and Romans, who used it to make cloth. It is a natural mineral, which varies by name and color depending upon where it is mined. There are six minerals lumped into the category of asbestos.

Asbestos is resistant to heat and most chemicals. The tough fibers were used as reinforcement and for heat resistance in many products for industry, homes and commercial buildings. It is a sneaky carcinogen because it was easy to add the mineral to a host of products that can disguise its presence to the naked eye. The reason for its widespread use is that it saved lives from fire hazards and improved the characteristics of many products.

Problem on personal level

You might scratch your head on how this happened. There was evidence of the medical risks of asbestos as early as 1920, but workers were not told of the dangers until the mid 1970s.

Millions of workers, including my father, have died of asbestos-related cancer.

As a young man, I was exposed to asbestos in everything from joint compound to insulation and ceiling tiles while working in the family construction company.

With that said, my work as an asbestos testing professional is highly personal. Asbestos exposure still occurs today in many products and when it is removed by unsuspecting workers. Asbestos is still heavily mined in Russia and



DAN HOWARD

Though the hazards of asbestos have been known since the 1920s, it was widely used through the 20th century.

does find its way into products being manufactured today.

Back in the news

Within the past two months, asbestos made the news when reports showed that samples of a highlighter makeup called "Just Shine Shimmer Powder" that is sold in Justice stores contained asbestos. By the way, this product targeted for young people also contained a handful of toxic heavy metals.

Another example of possible asbestos that appears regularly on HGTV is popcorn or stipple ceiling finish material. Up until 1999, some manufacturers were adding asbestos to that material. Aspiring homeowners love to remove texture from ceilings which in turn contaminates a building with asbestos fibers.

Some of the most common asbestos-containing materials are:

- Vinyl floor tiles
- Wrap on old ductwork and pipes
- Vermiculite insulation
- Plaster and joint compound
- Chimneys and furnaces
- Fireplaces

- Cement fireplace surrounds
- Old fuse boxes
- Rope seals and gaskets
- Popcorn ceilings

Products that possibly have asbestos can and should be tested for the presence of asbestos before they are disturbed. The testing should be done by a licensed asbestos professional.

If you have asbestos

When asbestos is found in a building, there are usually three possible options — removal, encapsulation or leaving the asbestos untouched.

Removal or abatement is usually necessary if the asbestos materials are damaged. Removal is a great option if you want to completely remove the potentially hazardous materials once and for all. Removal often is necessary during construction, demolition and refurbishment projects.

Encapsulation is usually less expensive than removal, and involves covering the material to isolate it rather than removing it. An example would be installing a wood subfloor over an asbestos tile floor

or covering insulation containing asbestos with a safe insulation.

Leaving asbestos in place might not seem like the best option, but in some cases, asbestos does not pose a threat to humans, and can be left in place. An example of this would be a chimney installed in a sealed chase. As long as asbestos fibers can't reach the air we breathe, they are not a hazard.

Safe removal processes

The term that is used for asbestos fibers that are loose and can travel in the air to our lungs is "friable." When asbestos is firmly secured in a substrate it is deemed "non-friable." You probably have seen photos of pipe wrap on old boilers falling apart. That would be considered "friable." Vinyl floor tile in good condition would be an example of "non-friable."

Think about a dandelion when it has turned from yellow to white. If you touch or blow on the little white threads they go all over the place. That same process occurs when friable asbestos is disturbed.

Containment is first sealing off

the area where the work is being conducted. Handling the material without allowing it into any breathing space is the next step. It needs to be gathered and bagged for removal while containment is preserved.

Negative air is settling equipment so as to keep air from escaping the barriers of containment through any small opening. The air is filtered of floating particles by air scrubbing.

Asbestos-related diseases

- Asbestosis is scarring of the lungs. This damages tissues and hampers their ability to intake oxygen to the blood. This disease can take from 15 to 30 years to show itself.

- Lung cancer is a malignant tumor of the bronchi covering. The tumor grows through surrounding tissue and obstructs the air passages. This disease can surface 20 to 30 years after asbestos exposure.

- Mesothelioma is cancer of the mesothelium which is the lining of the abdominal wall. Early stages of the disease have few symptoms. By the time it is found, it is almost always fatal. This disease can have a latency period of 30 to 40 years.

As a final word, let me take a shot at the question a lot of people ask: Can I remove asbestos myself? I vote "no," unless you are equipped and practiced at the process of containment, negative air and air scrubbing. Asbestos can take decades to kill you, but it will. Watching what my dad went through, I assure you that slowly suffocating to death over a stretch of about a year is not worth saving money on an asbestos removal project.

For links, videos, pictures, resources for reimbursement if you have asbestos and additional information about asbestos, go to: Envirospect.com/Asbestos.

Dan Howard is the owner of Enviro-spect. For environmental consultation, call 724-443-6653. Email questions to DanielJHowardJr@gmail.com, and follow him on Facebook or via Twitter @DanHoward251.