



HIDDEN HAZARD:

ASBESTOS

No longer an issue? Wrong. Why you should take caution if you want to remodel an older home.

BY PAUL F. P. POGUE

Planning to tear out siding, roofing, flooring tiles or insulation this year? Before replacing these materials in your home, be sure to protect yourself from the dangers of asbestos exposure.

A hidden home health hazard that's largely dropped out of the national spotlight – except on those mesothelioma TV infomercials – asbestos likely remains in millions of homes, especially those built before the 1970s. Although undisturbed asbestos in the home poses no known harm, homeowners need to know the dangers involved when remodeling, along with the consequences of exposure and proper removal methods.

WHAT IS THIS?

These suits are made of a special type of fabric with a small enough knit to keep asbestos particles out.

Props provided by Tim and Julie's Another Fine Mess Architectural Salvage in Indianapolis.
PHOTO BY FRANK ESPICH/ANGIE'S LIST



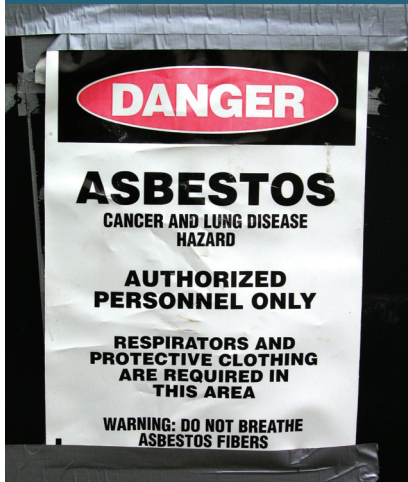
Where does asbestos come from?

Asbestos refers to one of six different naturally occurring fibrous minerals. It was produced for many years in mines around the world, including the United States. The U.S. closed its last asbestos mine in 2002. Now, nearly all asbestos used worldwide is mined in Russia, China, Brazil or Kazakhstan.

Source: U.S. Geological Survey

Be aware

Global Asbestos Awareness Week is April 1-7. The International Asbestos Awareness and Prevention Conference will take place April 8-10 in Washington, D.C. For more information on these events, visit asbestosdiseaseawareness.org



WHAT IS ASBESTOS?

Asbestos is a naturally occurring mineral that's still mined in a few places around the world. Due to its strength and heat resistance, asbestos was used in a wide variety of construction purposes for many decades.

Asbestos is still used in the U.S., mostly in roofing and brakes, though vastly less than its peak in the 1970s. Very few homes built in the past 20 years contain any asbestos at all. But because asbestos was used in so many applications, from cement to pipe insulation to stovetop pads, no exact numbers exist as to how many homes contain the cancer-causing material.

The Environmental Protection Agency issued a ban on nearly all usage of asbestos in 1989, but federal courts overturned the ban two years later after a legal challenge from the asbestos industry. Today, regulation of asbestos varies widely by state and local municipality, and some experts say those regulations are inconsistently enforced.

DANGERS OF EXPOSURE

Asbestos exposure can lead to respiratory problems decades later, including mesothelioma, lung cancer and asbestosis (scarring and stiffening of the lungs). Health experts, including the Centers for Disease Control and Prevention, EPA and the Occupational Safety and Health Administration, say there is no safe level of asbestos.

Testing for asbestos shortly after exposure typically yields no results, says Joan Ketterman, training manager for the Environmental Management



CLOCKWISE FROM BOTTOM LEFT: PHOTO COURTESY OF MICHAEL PERECKAS; CONNECTICUT DEPARTMENT OF PUBLIC HEALTH; ISTOCK

Institute in Indianapolis, but exposure to asbestos over long periods of time can be deadly. "There's no real way to know if there's asbestos in your system until it manifests 10, 20, 40 years later," she says. "Realistically, it's almost impossible that one or two exposures would make you sick. The people who get sick from asbestos have had long-term exposures."

Although the EPA established minimum rules nationwide for working with asbestos, many local and state municipalities regulate the industry differently or not at all. For instance, Dave Krecek, general manager of Danley's Garage World in Northbrook, Ill., says Cook County adopted some of the more stringent regulations in

the country by requiring anyone who demolishes or renovates single-family structures to check for asbestos no matter the age.

However, Krecek, who holds a state asbestos building inspector license, notes that enforcement is spotty at best and he says he's caught other contractors falsifying asbestos

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Kathy Berry holds one of many photographs that illustrate the thickness of the dust, likely containing asbestos, during house renovations.



HOW MUCH?

Asbestos testing generally costs \$200 to \$400. Asbestos removal cost averages about \$1,500, but can go up to tens of thousands of dollars for a whole-house abatement.

testing or not doing it at all when demolishing old garages. Krecek says it's imperative for homeowners to make sure their homes get tested and contractors follow proper work practices. "If Angie's List thinks lead is dangerous, try asbestos on for size," says Krecek, referring to the magazine's lead safety cover story published in October 2014 and online

at angieslist.com/lead. "At the residential level, [governmental regulators] don't care unless someone gets hurt 20 years from now or an OSHA inspector observes unsafe practices."

Ketterman says the safest thing to do is usually to leave it alone. "Asbestos doesn't become a danger ... in things like cement and flooring until it becomes airborne," she says. "If your flooring has asbestos tiles, it's not hurting anybody — until they decide to drill through it."

There's no way to identify asbestos on sight, Ketterman adds, but it was used in vinyl and linoleum flooring, in particular on 9-by-9-inch tiles and sometimes on 12-by-12-inch tiles. The vinyl sticky-back flooring commonly had it, as did asphalt-style flooring.

JEREMY DEAL/FOR ANGIE'S LIST

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ASBESTOS TESTING

If you plan to demolish or remodel part of an older home, asbestos becomes a big issue, as that type of work releases the asbestos fibers and creates serious risk of exposure. And your contractor might not volunteer that testing may be needed.

Larry Enos, owner of All Clear Environmental in North Hollywood, Calif., advises homeowners with potential issues to get testing and a renovation survey done before doing any major work. "If you're tearing up asbestos flooring material, drywall compound or siding, that's where you can get into trouble," Enos says. "A lot of general contractors won't tell the client they need this."

He also urges homeowners to get copies of all documentation, such as OSHA reports and inspection records, during the course of an asbestos abatement or an asbestos-related remodel to confirm any findings.

It's best to hire asbestos contractors to test for asbestos and do removal work. Often, general contractors don't want to be involved for liability reasons — and it's probably best that the testing and work be done by separate entities. "Most general contractors won't do asbestos projects," Ketterman says. "If they find out there's asbestos, they'll just say, 'Oh, call me back when it's gone.' Some will ask about it and some won't." Log in to angieslist.com to find independent asbestos pros.

In a 2011 report, the Government Accountability Office found that more than 3.3 million claims valued

Vital signs

Asbestos can cause:

- Mesothelioma
- Asbestosis
- Lung cancer



Symptoms of asbestos-related diseases:

- Shortness of breath
- A persistent cough that worsens over time
- Blood coughed up from the lungs
- Chest pain



10-40 years

How long it can take for asbestos-related symptoms to appear after exposure.

\$90 billion

The expected number of total insured industry losses over time due to asbestos, according to Fitch Ratings.



Zero

The number of asbestos fibers that's considered safe for exposure.

50-84 times

Increase in the risk of getting lung cancer when a cigarette smoker is exposed to asbestos.





Asbestos training: The importance of sealing

Asbestos training covers all aspects of the field, including the importance of keeping the work area completely enclosed. With a small, isolated job, a worker may simply place a sealed box around the work area and use rubber gloves to reach into the box. With a larger area such as a room, workers will seal it off entirely with plastic.

at \$17.5 billion have been paid out, and at least 100 companies have declared bankruptcy at least partially due to asbestos-related liability. The GAO also says trusts have set aside more than \$37 billion to pay out future claims. Fitch Ratings estimated in 2015 that total insured losses due to asbestos litigation could top \$90 billion over time.

COST OF TESTING

Asbestos testing typically ranges from \$200 to \$400, Ketterman says. The federal government does not license or accredit asbestos testers, so make sure any pro you hire meets local and state licensing requirements.

Before becoming a member, Kathy Berry of Catawba, S.C., says she learned the importance of hiring an independent asbestos inspector the hard way in 2013 when she hired a company to work on the kitchen in her 1970 home. She says the company deliberately hid the results of an asbestos test and sanded down underflooring that contained asbestos. “They told me the test showed just a trace of asbestos and it was nothing to worry about, but I later contacted the inspector myself and found that the level was much higher,” she says.

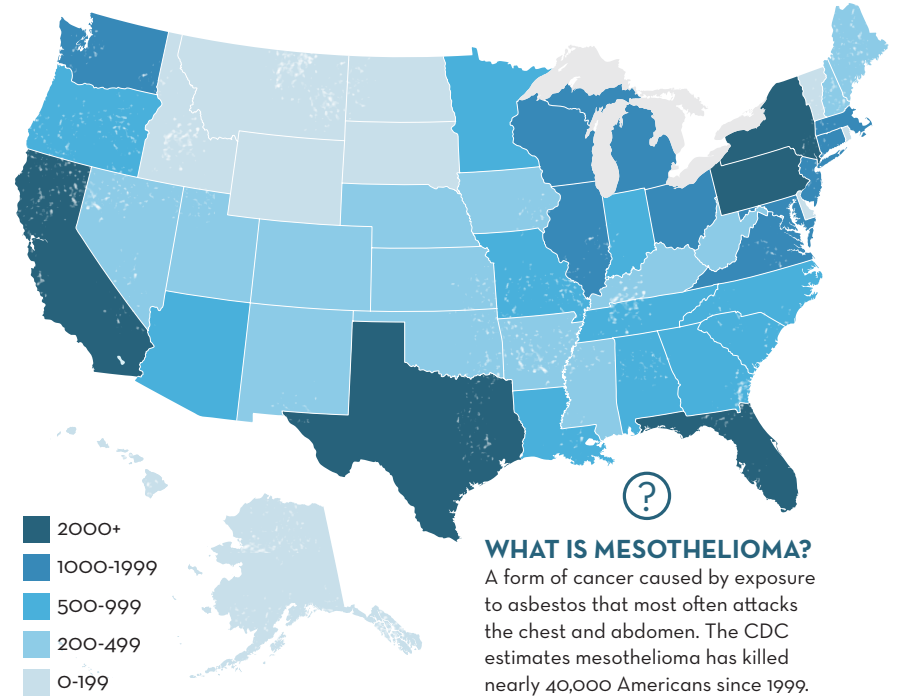
Berry thoroughly cleaned her home, but she’s still concerned. “I’m worried about my granddaughter,” Berry says of her then 15-month-old grandchild, who came into the house when dust from sanding was present. “The doctor said he didn’t think there would be any health effects because of the minimal amount of time she had been in here, but you never know. Asbestos problems don’t arise for years later, and there’s nothing they can do to test for it.”

Ketterman says there’s not much you can do to test a home after the work has been completed. She advises a thorough cleaning to get rid of any remaining debris. Be careful to wipe down the affected areas without causing the dust to become airborne.

STEVE C. MITCHELL/ANGIE'S LIST

Mesothelioma Deaths

by state since 1999, divided by range



WHAT IS MESOTHELIOMA?

A form of cancer caused by exposure to asbestos that most often attacks the chest and abdomen. The CDC estimates mesothelioma has killed nearly 40,000 Americans since 1999.

PROPER REMOVAL

Paul Ilacqua, owner of Asbestos Man Removal in Plymouth, Mass., says he most frequently encounters asbestos in basement pipe insulation. He says this should cause homeowners the most concern, since unlike asbestos siding, tile or roofing, insulation can easily deteriorate. Homes with boilers are the most likely to have asbestos insulation. “This was put up 50 or 60 years ago, so it’s probably not in good condition, whether or not you

disturb it,” he says. “If that insulation is coming apart, a good gust of wind when you open up the basement door can send the particles airborne.”

Proper work procedures for asbestos removal include fully sealing off the work area with layers of plastic, equipping workers with respirators, and setting up an air pump that monitors fiber counts in the air. Materials should be wetted down prior to the work to minimize the release of asbestos particles into the air. ■