

Dog Tips

Could Your Dog Be Breathing in This Dangerous Toxin?

Asbestos is a carcinogenic material that causes mesothelioma. While humans generally know the risks and take precautionary measures, pets are usually left out.

Reviewed by Dr. Arielle Walton

STORY AT-A-GLANCE

- Asbestos is a naturally occurring mineral with heat-resistant properties, historically used in pottery, Roman lamps, and extensively in construction and automotive industries since the 19th century
- Despite its utility, asbestos exposure is highly toxic and linked to mesothelioma, a rare but aggressive cancer affecting both humans and animals through inhaled microscopic fibers
- Pets are at risk from asbestos during home renovations, secondhand exposure from owners, or outdoor activities near contaminated soil, construction sites, or asbestos-containing materials
- Mesothelioma symptoms in pets include labored breathing, coughing, lethargy, vomiting, and abdominal discomfort; early veterinary intervention and diagnostic testing are crucial for proper treatment
- Prevention strategies include identifying asbestos in homes, keeping pets away during renovations, practicing proper hygiene after exposure, and providing a clean, anti-inflammatory diet to support long-term health

Asbestos is a mineral found in nature and is defined by its fibrous silica crystals. While it's been used as a popular construction material for decades, research shows that humanity's relation with it goes farther than that. According to a 2024 study:¹

"The use of asbestos goes back thousands of years with pottery in Africa and in Finland from 4000 years ago containing asbestos and Finnish homes were known to contain asbestos rock to pack crevices in log huts.

The Romans made use of asbestos using it for the wicks of the lamps of the Vestal Virgins so that the lamps would burn continuously as long as they were kept filled with oil. Roman historians made note of slaves working in asbestos mines and noted that they were thought to die young."

Modern industrial application of asbestos began when it was discovered in Canada during the 19th century. By the 1950s, 900,000 tons were mined per year.² Its prominence is because it's found to have heat-insulating properties, thus appearing in building construction materials. It's also used in the manufacturing of important car parts, such as brakes.³

How Pets Can Be Exposed to Asbestos

You may wonder, what does asbestos have to do with my pet? As it stands, research shows that when inhaled, asbestos drastically increases your risk of mesothelioma, an aggressive form of cancer.⁴ And where there are people, there will also be pets living among them, now also at risk of mesothelioma.

According to the Animal Health Foundation, mesothelioma can also occur in animals, but these instances are lower compared to humans:⁵

"Researchers saw pleural, peritoneal, and pericardial mesothelioma in the population of dogs studied and even some that had cancerous tissues in more than one part of the mesothelium.

Most of the dogs in the study were found to have asbestos in the affected tissues, providing a link between the cancer and exposure to asbestos. Dogs in a control group had far fewer fibers."

So, how do pets become exposed to asbestos? There are several ways this can happen. Bow Wow Meow, an Australian pet insurance company, lists several possibilities:⁶

- Home renovations or DIY projects of older houses or buildings
- Secondhand exposure occurs when owners bring asbestos home on their clothes or skin
- Climbing or tunnelling into hard-to-reach places like attics and ceiling cavities
- Spending time outdoors near construction sites or parks where asbestos has been found or is being removed
- Eating, digging, or playing in mulch or soil that contains asbestos
- Exposure to humans who work in an industry with asbestos usage

In addition, older dogs generally have a higher risk than younger ones. That's because mesothelioma in canines usually develops at around eight years old. Cats are also less likely to develop this disease.⁷

Spotting Mesothelioma in Pets

If your pet has been exposed to asbestos, there are several indicators. The most common include:⁸

- Respiratory problems, including painful, difficult breathing, abnormally rapid breathing, huffing, wheezing, or shortness of breath
- Coughing
- Difficulty moving or exercise intolerance
- Abdominal swelling and discomfort
- Fatigue or lethargy
- Muffled heart, lung, and abdominal sounds
- Enlarged scrotum
- Vomiting

Mesothelioma arises from mesothelium cells, which are the ones that line your pet's cavities in internal organs. Once the cancer grows, fluid builds up, causing the symptoms mentioned above.⁹

If you spot any of these symptoms, visit your veterinarian immediately for an accurate diagnosis. According to the Animal Health Foundation, testing usually begins with a blood and urine analysis, then progresses to imaging tests to rule out tissue abnormalities. A biopsy may also be required.¹⁰

Strategies to Lower Your Exposure to Asbestos and Mesothelioma Risk

While mesothelioma is rare among animals, that doesn't mean you shouldn't be relaxed when protecting your pet against this disease. Here are some practical strategies you can implement:¹¹

- **Home** Many homes and other buildings built before the 1980s likely contain asbestos in many features, such as insulation, ceiling, and flooring. Asbestos is released into the air and inhaled when these homes are damaged through various circumstances.
 - Make sure to identify, seal, or replace any feature of your home's construction with asbestos-free materials. If this isn't financially possible, preventing damage will be enough. It's also possible for pets to chew on construction materials around the home, so monitor your dog carefully as they roam around.
- **Renovations** If you renovate your home in the future, beware that it will disturb and release asbestos into the air. Most construction workers are aware of this risk and wear the proper protective equipment, but pets typically aren't protected.
 - When pets roam the premises during remodeling, they may walk around and lick surfaces containing asbestos. To protect your pet's health, the best action is to temporarily relocate them until construction is completed.
- **Clothing** As noted earlier, certain professions may put humans in contact with asbestos. And when the pet greets their pet parent, they can inhale the asbestos embedded in the clothing. If this applies to you, shower and change your clothes immediately upon returning home.
- **Diet** Aside from environmental factors, your pet's diet greatly lowers their risk of cancer. Make sure to feed them a species-appropriate, anti-inflammatory diet. This means minimizing the use of kibble and giving them high-quality protein and low-glycemic veggies rich in antioxidants. For a more detailed discussion on this topic, read the article "**The Silent Alarms Uncovering the C Word in Pets**."

Sources and References

^{1,2} <u>Lung Cancer Volume 193, July 2024, 107828</u>

⁴ <u>Transl Lung Cancer Res. 2020 Feb;9(Suppl 1):S39–S46</u>

5,10 Animal Health Foundation, December 5, 2018

6,7,8 Bow Wow Meow Pet Insurance, February 27, 2024

9,11 <u>DogCancer.com</u>, October 8, 2024

³ EPA, August 2, 2024