

MOTHERS & OTHERS FOR CLEAN AIR

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## **HEALTHY INDOOR BREATHING TOOLKIT**

# **BUILDING MATERIALS**



For more information about this research, visit  
**[WWW.MOTHERSANDOTHERSFORCLEANAIR.ORG](http://WWW.MOTHERSANDOTHERSFORCLEANAIR.ORG)**



## THE PROBLEM

Just as items you purchase to use inside your home could increase indoor air pollution levels, the products which were used to build your home can too. We worked with Wellness Within Your Walls to learn about these hazards and what you should look out for.



Wellness Within Your Walls®

*Wellness Within Your Walls has a certification process for people, places, products, and programs which teaches a holistic approach to lowering toxins indoors.*

[wellnesswithinyourwalls.com](http://wellnesswithinyourwalls.com)

Insulation is often made with polyurethane foam. This material contains two types of harmful chemicals: MDI (which can cause asthma and lung damage in cases of severe exposure) and flame retardants.

Growing evidence shows that flame retardants affect hormones, lower sperm count, damage thyroids, cause cancer, and are developmental neurotoxins (toxic to developing fetuses). They are persistent, meaning that they build up in our blood over time.

Some old insulation, particularly vermiculite, may contain asbestos. Please go to page 12 to learn more.



Spray Foam

# WHY IS THIS IMPORTANT

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## TO MY OR MY CHILD'S HEALTH?

If your house is made of toxic building materials, the toxins can contribute to...

- Ear Nose and Throat Irritation
- Headaches
- Coughing
- Wheezing
- Asthma
- Eczema (Itchy/Bumpy Skin)
- Skin irritation



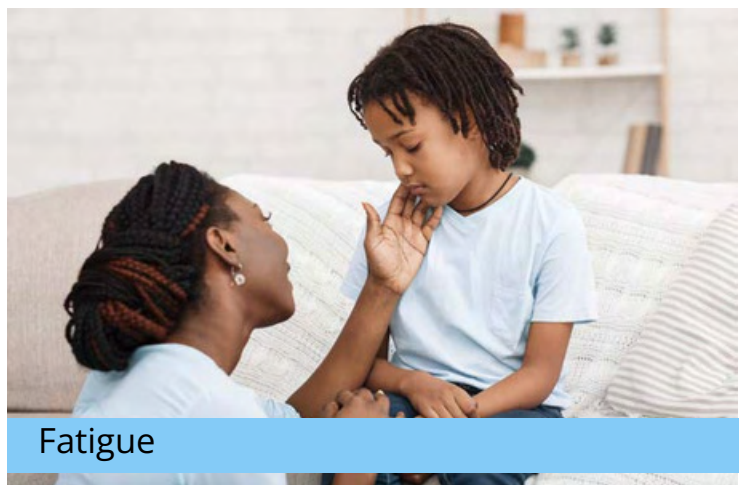
Eczema (Itchy/ Bumpy Skin)

- Calluses
- Asbestosis
- Memory loss
- Central nervous system effects
- Lung Disease
- Cancer
- Mesothelioma



Skin Cancer

- Fatigue
- Dizziness
- Drowsiness
- Nausea
- Abdominal pain
- Weakness
- Anemia



Fatigue



## ASBESTOS



Asbestos on Wall Tiles

Asbestos can be found in building materials such as tiles, cement, paper products, and insulation.

Asbestos can be released into the air if the material is moved, disturbed, damaged or cut. Asbestos was widely used in homes until 1970. If your home was built before 1970, it is possible that there is asbestos present. However, even today asbestos is occasionally used in home building.

### ASBESTOS USES BEFORE 1970:

- Insulation
- Boilers
- Furnaces
- Electrical Wires
- Pipe Coverings
- Roofing Materials
- Sealants and Coatings
- Textiles
- Ceiling and Floor Tiles
- Textured Paints
- Wall Boards
- Spackle



Vermiculite attic insulation containing Asbestos

## PRESENT DAY ASBESTOS USES:

- Corrugated sheeting
- Imported cement pipes
- Roofing materials
- Some vinyl tiles
- Contaminated insulation



Asbestos in Roofing Materials

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**Health risks includes lung disease, and symptoms can take many years to present themselves.**

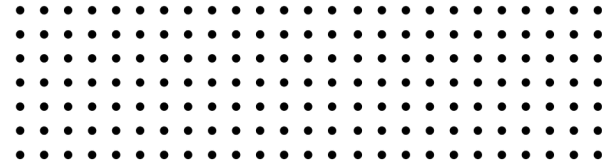
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Asbestos on Pipes



# WHAT TO DO IF YOU THINK YOU HAVE ASBESTOS IN YOUR HOME



- ✓ **FIRSTLY, DO NOT PANIC!** Asbestos is not harmful *if it is not damaged or disturbed*.
- ✓ **KEEP CHILDREN AWAY FROM AREAS WITH ASBESTOS.** Avoid any activities, especially those with children, in the area where you think you have asbestos.
- ✓ **DO NOT DUST, SWEEP, OR VACUUM ANY ASBESTOS CONTAINING DEBRIS.**
- ✓ **DO NOT SAND ASBESTOS FLOORING OR BACKING.**
- ✓ **HIRE AN ASBESTOS PROFESSIONAL TO DEAL WITH ANY REPAIRS.**

Asbestos inspectors can inspect your home, take material samples for testing, and advise on next steps.

Asbestos contractors can repair or remove asbestos materials.



Asbestos



[Click here for a list of asbestos professionals by state](#)

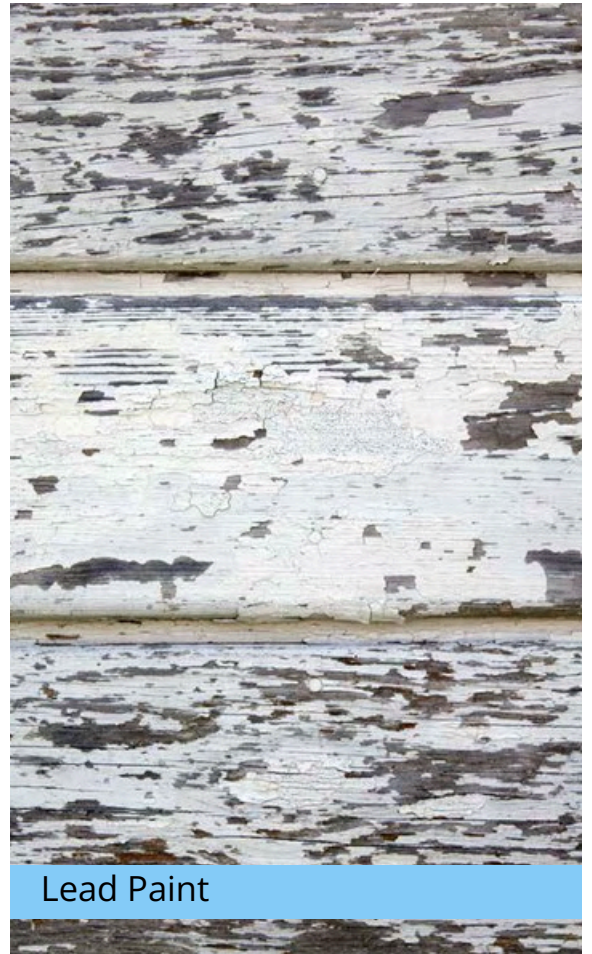
# LEAD

Lead is a naturally occurring metal that has been added to paint, furniture, roofs, water tank linings, water pipe joints, and electrical wires. Lead use was banned in paints in 1978 and in pipes in 1986.

However, any home built before 1978 is likely to have lead in the paint or piping. The presence of lead paint in the home becomes an issue if the paint is likely to peel off. This peeling paint creates lead dust. Lead dust can then be inhaled and enter into our bloodstream.

Additionally, children who have a tendency to chew on surfaces covered in paint are at high risk for lead poisoning.

The presence of lead in piping causes the lead to leak into the water. Water contaminated with lead is harmful to humans when ingested.

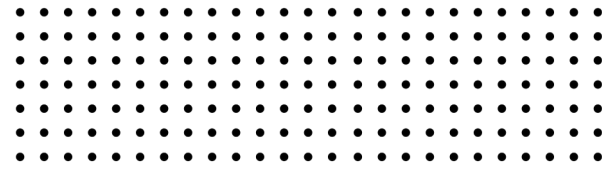


Lead Paint





# WHAT TO DO IF YOU THINK YOU HAVE LEAD IN YOUR HOME



If your home was built before 1978 and you suspect it contains lead-based paint or piping, have your home tested for lead and learn about potential lead hazards. You should always hire a certified lead professional to take any steps to reduce lead exposure in your home.

**[Click here to locate trained professionals in your area](#)**



**GET A LEAD PAINT INSPECTION BEFORE BUYING A NEW HOUSE.**

This inspection tells you whether your home has any lead.

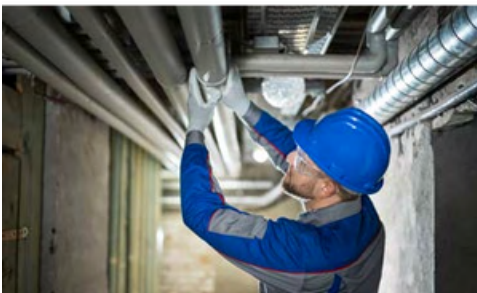


**GET A LEAD PAINT RISK INSPECTION.** These risk inspections can tell if your home has any lead paint hazards, where the hazard is, and what actions are necessary to reduce the hazard.



**LOCATE A TRAINED PROFESSIONAL IN YOUR AREA WHO CAN EVALUATE AND TEST YOUR HOME FOR LEAD.**

**[Learn more here.](#)**



**LEARN IF YOU HAVE LEAD IN YOUR DRINKING WATER.**

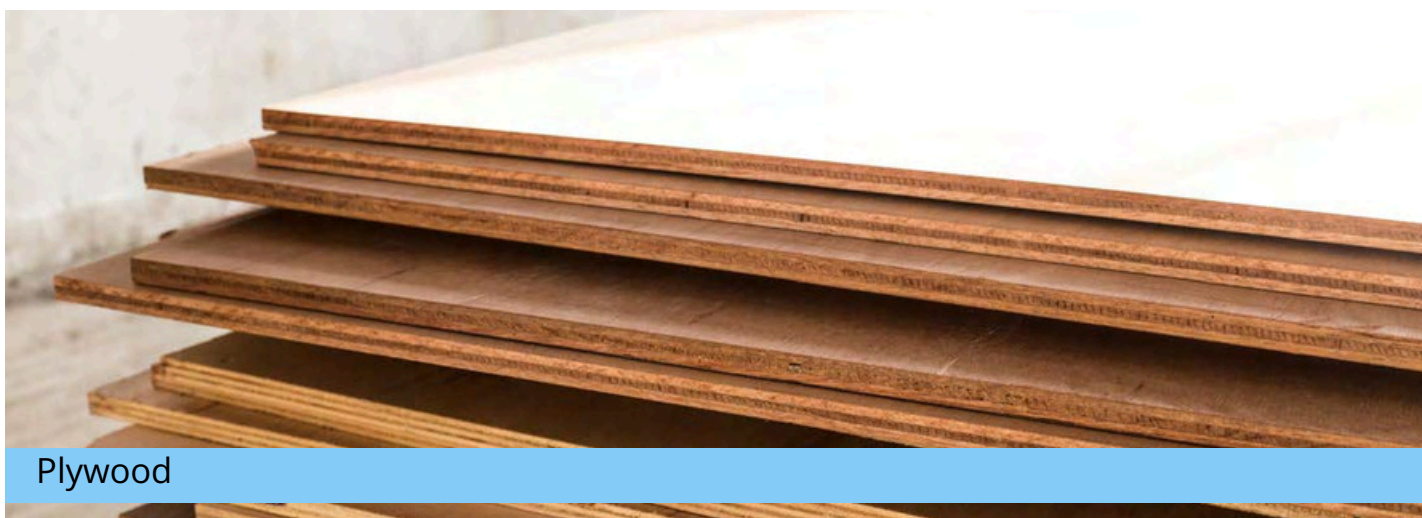
**[Learn more here.](#)**

**PAINTS CAN HAVE SERIOUS EFFECTS ON YOUR HEALTH.  
CHECK OUT OUR PAINT TOOLKIT TO LEARN MORE!**



# FORMALDEHYDE

Formaldehyde is a colorless flammable gas that has a strong odor. It has been classified as a known human carcinogen since 2014. Formaldehyde is used in many building products including pressed wood, paints, plywood, fiber board, glues, adhesives, and insulation. Exposure to formaldehyde has negative effects on anyone's health but is particularly harmful to those suffering from respiratory diseases or asthma.



Plywood

## HOW TO AVOID FORMALDEHYDE WHILE BUILDING A NEW HOME

Only purchase woods, glues, adhesives, and insulations which specifically indicate that they are formaldehyde free.



# VOLATILE ORGANIC COMPOUNDS

Volatile organic compounds are a class of chemical used in many adhesives, coatings, wood protectors, flame retardants, and other building materials. VOCs include a variety of chemicals released from common products, which can have negative health effects. In some cases, VOCs inside the home are measured up to 100 times higher than outside.



## HOW TO AVOID VOCS IN YOUR HOME



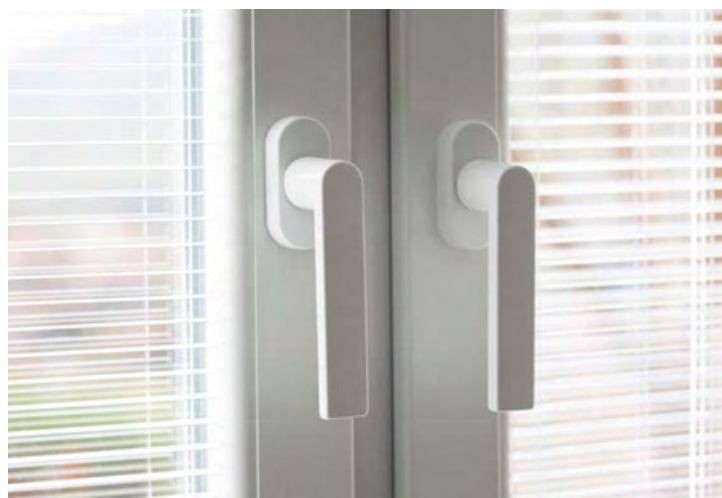
Only purchase building materials which specifically indicate that they are VOC free.





# PVC

PVC is a plastic which is used to create the water pipes beneath sinks, sidings, window frames, and electric wiring/cables. PVC is the single most environmentally damaging plastic on the market. During PVC's manufacturing process many toxic chemicals are created which then linger in the plastic and are released into the home.



## HOW TO AVOID PVC IN YOUR HOME



Only purchase pipes, window frames, sidings, and cables which specifically indicate that they are PVC free.

[1] [Polyvinyl Chloride \(PVC\) | Uses, Benefits, and Safety Facts.](#)

[2] [Poison Plastic: The Toxic Life Cycle of PVC.](#)