Is your home making you sick?

DAN HOWARD
FOR TRIB TOTAL MEDIA

The answer might be yes. Mold, radon, asbestos, pesticides, formaldehyde, cleaning chemicals, artificial fragrances, combustion gases and a host of other contaminants can all lead to serious health issues. At least one of these potential health risks and maybe more are likely in your home.

22 year old Lindsey Jarvis of East Liverpool Ohio is one of countless thousands of people across the country that knows a home can make you sick. The World Health Organization and the Environmental Protection Agency call it "sick building syndrome."

Stories like Lindsey's are serious, life changing and too common. We have changed the way we build, heat, insulate, seal, clean and furnish a home which puts us at a higher risk.

Lindsey explains what happened to her: "I would get really shaky. I'd have muscle weakness at times and couldn't stand up and there is an ongoing list of symptoms."

She has suffered from asthma, acid reflux, bronchitis, severe headaches and nausea. Her weight plummeted, and she was not on a diet. Then her dog got sick too.

Lindsey's parents George and Jodi knew something was wrong when their daughter was so sick that she lost over 50 pounds in sixth months. They made trip after trip from Florida to accompany their daughter to specialist after specialist. Her family sought any medical opinion they could find. "We'd go to this doctor and we'd go to this specialist and the words we kept hearing from people was we're baffled," recounts Lindsey's mother Jodi Torkoly. The symptoms were there, they were debilitating, but they could not find the cause of the illness.

After almost a year of the health struggles, a friend of the family who had a similar experience suggested checking the home. It was then that the sources of Lindsey's illness were found. The home had high levels of mold. Health issues could be a concern for most people with mold test results above 2,000 spores per cubic meter. The readings in her home were over 250,000 spores per cubic meter. Making this problem worse, the mold results included Stacybotrys, better known as "Toxic Black Mold" and Chaetomium, which can cause central nervous system infections.

There were other environmental problems in this home. The chimney for the furnace was blocked and the furnace had a cracked heat exchanger creating a carbon monoxide problem. There were multiple natural gas leaks in the lines in the home and visible asbestos on ductwork. This was a sick house, and now Lindsey was sick too.

Most common signs of a sick home:
- Feeling better when away from the home.
- Symptoms, but can't find a cause for the illness.
- Increasing medications for allergies

The AAAAI (American Academy of Allergy Asthma and Immunology) lists "avoidance" as a treatment for many environmentally based illnesses such as asthma. The problem is that the physician does not know what is in a home environment for a patient to avoid. The doctors who had treated her had no idea of the real cause of her health problems and did not know to tell her to avoid the exposure.

Mold was the major cause of contamination in Lindsay's and many other sick homes. This is not a new problem. The first written mention of mold in a home is in the Bible, Leviticus 14:33-45 Cleansing from Defiling Molds. Mold was an important health issue in Biblical times and it is an important health issue today.

For most of human history, we lived in housing with lots of fresh air. Now we have air tight windows, caulking, insulation, high efficiency furnaces that do not bring much fresh air into a home. Energy Star rated homes that reduce fresh air infiltration into homes in the name of energy conservation are considered the "gold standard'.

"America is in the midst of a large experiment," says committee chair John D. Spengler of Harvard School of Public Health. He says that weatherization and other cost-saving measures, along with new building materials and products, have been introduced into American homes with little consideration for their effects on human health. The result, the report warns, is increased levels of indoor contaminants and humidity.

An old expression is that "dilution is the solution to pollution." That simply means that the teaspoon of pesticide in a 50 gallon drum is less toxic than a teaspoon in a cup of water. By reducing the fresh air in a home, we are not diluting the pollutants inside of the home.

We use chemicals to clean and to add fragrance to the air. We have added new plastics and foams that can off gas chemicals. Our furnishings, floors and carpets are made with potentially toxic chemicals such as formaldehyde in their construction material. We spray pesticides in homes without a second thought that they are poisons. We still have lead paints and asbestos in homes.

According to the June 2012 issue of Consumer Reports, almost half of Americans use air fresheners at least once a week, and 34 percent use candles or incense that frequently, our nationally representative survey found. Roughly 40 percent rarely or never clean their humidifier or kitchen range hood, though they use it daily. One quarter have never cleaned or replaced their furnace filter. And almost 20 percent still smoke at home or let others smoke there. All of those things can worsen indoor air quality.

Consider additional research if you suspect that you have a sick home. Some causes of sick home syndrome can be simply checked visually or with readily available equipment. More difficult to identify contaminations such as organic chemicals can be tested with more elaborate methods such as TO15 or Dragger Tube tests.

Common causes of sick homes
- Improper ventilation
- Mold
- Finished basements and crawl spaces with moisture
- Interior French drains
- Leaks from storms, plumbing, gas lines
- Improperly functioning furnace, hot water tank or other appliance
- Improperly installed gas appliances
- Previously performed pesticide application
- Cleaning chemicals
- Leaking stored chemical containers
- Artificial fragrance
- New carpet, cabinets and other materials
- Bird, pet and other dander and fecal matter
- Sewage backups and leaks
- Radon
- Asbestos

Often, it's easy to accomplish changes in your home that can improve health long before it is a "sick house". Changing an asthmatic child's bedroom floor from carpet to wood flooring and adding a HEPA filter in that room can greatly improve their quality of life and reduce medical expense. In other cases, new equipment such as furnace air to air exchangers can bring in sufficient fresh air to improve the health of family members.

Careful selection of building materials, such as using fiberglass faced drywall and steel studs in basements can reduce the chance of mold growth. Flooring material selection is also important to avoid mold in basements.

It is also important to remember some other things to avoid. The use of artificial fragrances and air cleaners that produce ozone are two such examples.

"Toxic Black Mold"