



WHAT MAKES A SICK HOME?

BY JOHN CREWDSON

Did you know that just over 40 years ago, our homes were much healthier places to live? They may not have been perfect, but in many cases they were a lot healthier. More about that later. Here are a few of the reasons we're seeing an increase in health complaints related to the buildings we call home.

CHEMICAL

Manufacturer's have learned that we want the newest, shiniest products in our homes and they're always looking for new ways to impress us. The other side of this is the health consequences of unregulated chemical combinations used in manufacturing. So once customers begin suffering from health effects, class action lawsuits are filed, and then products are either changed or taken off the market.

On the other hand, chemical companies have learned that we really don't like bugs, or other pests. And, they know we'll happily buy lots of different chemicals to keep them away. This leads to toxic chemicals building up in, around, and under our homes. The VOCs (volatile organic compounds) from these chemicals then permeate our indoor air at constant low levels. They also leave behind toxic residue that ends up on the hands and clothes of our children and the fur of our pets.

Another category of household chemicals that few people give any thought to is cleaners and perfumes. Advertisers have trained us to believe that if it smells good, it's clean. Many of these chemicals are considered "safe" at low levels, but no real consideration is given to the cumulative effect of hundreds of chemical combinations or the buildup of these chemicals over



time. Did you know that fragrances and perfumes are considered proprietary formulas? Any time you see fragrance or perfume listed on a product label, it can contain up to 300 different chemicals, some of which have been legally banned.

BIOLOGICAL

It's been estimated that more than 80% of American homes have had or will have moisture problems. This can mean active or dormant mold and or bacterial growth on surfaces throughout a home: including inside walls, under floors, and behind cabinets. Both the EPA and the CDC state that even dead mold is potentially allergenic and toxigenic. It's not enough to simply kill mold; it must be removed.

So, what causes moisture problems? One cause is that most contractors work with small profit margins. They've found that in order to compete in the market, they have to push their subcontractors to do it faster and cheaper. After all, customers have lots of choices and price is almost always a deciding factor. As a result, poorly trained workers are often installing roofs, siding and windows that don't completely keep the water out of our homes.

While mold seems to be on the minds of most people, bacteria can also be found in a number of areas. A few sources most people don't typically consider are refrigerator ice makers and water lines, humidifiers, carpeting, and plumbing drain line leaks. So it can be important to look at bacteria as well as mold.

Also the negative health effects of being exposed to synergistic combinations of bacterial endotoxins and mold mycotoxins, a likely scenario in water-damaged buildings, is supported by research.

ELECTRICAL

The introduction of 5G (5th generation) technology has created a great deal of fear and confusion. 5G is not so much the immediate introduction of powerful high frequency transmissions as it is an increase of the existing technologies and frequencies already in use, although some higher frequencies are being used. What this means for most of us is increased exposure, at even higher levels, to the existing frequencies and technologies. Companies like these frequencies because they are particularly effective at penetrating most building materials. In other words, so your wifi and cell phone will work in nearly every room of your home.

Our homes, or at the very least our bedrooms, need to be places where our exposure to these fields is as low as possible so our bodies have the opportunity to heal from the high levels of radiation we receive during the day. Most people don't yet understand that putting a wifi router in the middle of the house, placing their cell phone on their nightstand while sleeping, and even having a plugin alarm clock next to their head creates far greater exposure to various EMFs than radiation from outside sources.



Because almost no consideration is given to EMFs when designing and building our homes, electrically sensitized individuals can have a particularly difficult time. Electric fields are high in many homes because we use plastic coated wiring rather than metal conduit. Magnetic fields are a problem because of common wiring errors, and a common outside source of both electrical and magnetic fields is our utility connections, like water, cable, and electrical service. Dirty electricity may sound a little scary, but its negative effects can sometimes be dealt with by simply reducing high electric fields.

BAD BUILDING DESIGN

Our ancestors had a good understanding of how to build a home to withstand the test of time, and mold wasn't the issue it is today. Chemical exposure was less, simply because there were fewer chemicals. Radio frequencies weren't usually much of a concern, but high magnetic fields have been shown to increase cancer rates as cities, and then farms, were electrified.

The oil embargo of the 1970's had us adding insulation and air sealing our homes. It took time for us to understand that not allowing our homes to breathe would create moisture problems and increase indoor VOCs (volatile organic compounds) from household chemicals. Mold, bacteria, allergens, and indoor chemical levels all increased almost overnight. Now, 40 years later, we're still more concerned with saving energy than we are with creating healthy homes. Saving a few hundred dollars in heating costs every year has left us with costly remediation projects and millions of dollars in medical bills.

Today few builders understand the basics of building science. It costs more to build this way, but controlling moisture, providing fresh air, and building for energy efficiency are all possible. Many health concerns can be addressed simply by creating healthier buildings and homes. However, until more of us understand the importance of good building design and maintenance, we will continue to create sick buildings and health complaints for the people living in them.



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With over 30 years of experience in residential and commercial construction and inspection, he's witnessed these problems firsthand and knows where they like to hide. You can find him at www.AHIEvironmental.com.