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How to Purchase a Healthy Home

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Buying a home is the American dream. We dream about the colors, size, and location of future homes. We spend hours finding the right one - a place that's convenient and fits our lifestyle. But do we ever stop to consider how healthy a home is that we are purchasing?

What does "healthy home" mean, anyway? And why is it such a big deal? Why is it so important to be aware of the health of your home? YOU will be spending a lot of time there, and so will your family. Being aware of the following indoor air pollutants will help you and your family live in a healthier environment.

Contact your local Health Department for information about how to fix and test for the following problems. You can also contact the Department of Health at (801) 538-6101 or a Utah State University Cooperative Extension service in your community.

Safety Precautions for Lead & Asbestos Removal

1. Do not attempt to remove lead- or asbestos-containing materials without proper training.
2. Seal off room to children, pets, or other household members; post a warning sign.
3. Shut down heating or cooling systems to avoid distribution of fibers or dust.
4. Keep dust and fibers in the work area. Use disposable plastic floor and shoe coverings.
5. Wear a respirator and protective gear. Wear disposable protective coverup and gloves.
6. Wet lead- and asbestos-containing materials. Wet with a solution of water and detergent (about one teaspoon detergent to one quart water) with a hand sprayer to minimize dust.
7. Avoiding handling, breaking and cutting materials.
8. Dispose of contaminated debris properly. Encase all lead- and asbestos-containing debris in two layers of plastic for disposal; follow local

Lead

The major sources of lead in the home are lead-based paint, drinking water, and residue from leaded gasoline. When purchasing a home, examine the paint to see if it is chipping, cracking, or flaking. If the home was built before 1978, you may want to test the paint and the water for lead. Lead can have serious health effects, especially for children, including slow mental development and damage to the nervous and reproductive systems.

Tests are available at hardware and building supply stores. If lead-based paint is found in your home, there are several things you can do. If the paint is in good condition, it's not an immediate risk; an easy way to solve the problem is the paint over lead-based paint. Another option is to replace the item or strip the paint if necessary.

Asbestos

Until about 1980, asbestos was widely used in building materials to give strength, increase heat insulation, and provide fire resistance. When asbestos products get old, they can become crumbly and disperse tiny fibers into the air. These particles can accumulate in the lungs and cause respiratory problems and lung diseases, including asbestosis, cancer of the lungs.

Special testing is needed for the detection of asbestos. If it is found, and it's in good condition, *leave it alone!* If materials are damaged or disintegrating, seal, encapsulate, cover, or enclose them.

Water Pollutants

Public drinking water in the U.S. is safe for most healthy people. However, about 95% of rural residents use private wells to supply drinking water. These wells are designed to provide clean, safe drinking water however, improperly constructed or poorly maintained wells can create a pathway for fertilizers, bacteria, pesticides, viruses, nitrate, lead, copper, and other harmful materials to enter the water supply. The health effects from these contaminants range from diarrhea and upset stomach to kidney or liver damage.

Well water should be tested *every year!* It may be helpful to ask your neighbors what their well water results were–that doesn't mean you don't need to test! To solve contamination problems, you can reduce backflow of contaminated water into the main source, let your water run until it changes temperature to clear out the pipes, use cold water for cooking and drinking, seal unused wells, or treat the water.

Radon

Radon is an odorless, tasteless gas that causes no immediate symptoms or health effects. It occurs from the natural radioactive decay of uranium and radium in the soil. Sources include well water, natural gas, soil, and some building materials. People exposed to radon may have damaged lung tissue and/or lung cancer.

To test for it, buy radon test kits that say "meet EPA requirements." To treat the problem, contact a certified radon contractor. You can also plug leaks in your home or change the home's ventilation patterns.

Formaldehyde

Formaldehyde is a chemical that is released into the air as a pungent vapor; many of us remember this smell from the high school biology lab. In some homes, particle board and medium density fiberboard are by far the major sources of formaldehyde in the environment; permanent-press fabrics and some furniture, carpeting, and floor finishes are other sources. Formaldehyde is a strong irritant that affects the eyes, nose, throat and skin and may also cause headaches, fatigue, or death.

You can detect formaldehyde in your home by smell, with environmental testing firms, or with do-it-yourself test kits. To reduce the problem in existing homes, identify the sources then coat the surfaces, control humidity and temperature, and ventilate the home. To avoid the problem in new construction, select low formaldehyde materials sometimes referred to as low VOC's.

Combustion Products

Combustion pollutants are sometimes called combustion by-products; they are produced by the burning of all fossil fuels and tobacco. Specific combustion pollutants that are of most concern in your home are:

- ➢Carbon monoxide - an odorless gas that can kill
- ➢Nitrogen dioxide - gas that can damage the respiratory tract
- ➢Sulfur dioxide - gas that irritates the eyes, nose, and respiratory tract
- ➢Particulates - tiny particles that make up smoke and irritate the eyes, nose, and throat

Installing a carbon monoxide alarm is one of the easiest ways to detect and protect yourself from this combustion pollutant. If you are experiencing symptoms such as headaches, dizziness, fatigue, sleepiness, nausea, irritated eyes, and/or breathing problems, you may have a combustion pollutant in your home (especially if carbon monoxide symptoms improve when out of the homes). To protect yourself and your family, keep all combustion equipment well-maintained and inspected for safety, exhaust all combustion pollutants outside, and do not allow tobacco smoking in the home.

Moisture & Bugs

Your house is home to many organisms. Some are good, some are not so good. Moisture and bugs (also called biological contaminants) come from living or once-living organisms. They include mainly animal hair, dander, saliva, and feces; molds and other fungi; dust mites; cockroaches and insect residues; pollen; and microscopic organisms. These can cause odors, damage household materials, lead to allergic reactions and asthma attacks, and cause infectious diseases and respiratory problems. Each person has a different sensitivity to these contaminants.

Moisture and bugs can be detected by sight (as with some mold), smell, evidence of rodents and insects, and if any of the following conditions are present: high humidity, standing water or household pets. The most effective way to reduce problems is regular cleaning, disinfecting, and keeping surfaces dry. You can also limit the use of carpeting, upholstered furnishings, and "dust catchers" if dust mites are a problem.

Adapted from *Healthy Indoor Air for America's Homes* (3rd ed.), *Help Yourself to a Healthy Home: Protect Your Children's Health,* and *Home*A*Syst: An Environmental Risk-Assessment Guide for the Home*. Funding for this brochure from Healthy Indoor Air for America's Homes: CSREES, EPA, MSU

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