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How Your Home Affects Your Health

By Robyn Griggs Lawrence, Experience Life

Potentially hazardous chemicals, in the form of building materials, furnishings and [cleaning products](#), infiltrate nearly everyone's homes. They're found in upholstery, manufactured wood products such as plywood and pressboard, traditional paint, permanent-press fabrics, vinyl, sealers and adhesives. And they hang around in the [air and carpets](#) for years.

In fact, the Environmental Protection Agency has found that the air in our homes has pollutant levels two to five times higher than the air outside, and sometimes even 100 times higher, depending on what furnishings, building materials and cleansers you're using.

Synthetic or engineered home-building materials and furnishings contain chemicals known as volatile organic compounds ([VOCs](#)), which evaporate at normal room temperatures (the process known as off-gassing) to pollute indoor air. Some VOCs are suspected carcinogens. The carcinogenic effects of formaldehyde, for example, common in pressboard and plywood, are well established. People who are exposed to VOCs can experience a range of symptoms, from headaches and nausea to skin and respiratory irritations, memory impairment – even central nervous system disorders.

Unfortunately, exposures have increased during the past 30 years. To conserve energy, homes have been sealed so tightly that air is exchanged only once every five hours or less. Today's tight houses also harbor biological contaminants such as bacteria, viruses, pollen and toxic molds, which grow easily in wet basements and bathrooms and on the cardboard backing used for drywall. The combination of these toxic factors can pose particular [challenges to children](#), pregnant women, older people and individuals with allergies or compromised immune systems.

Although the conflagration of potential health threats in today's conventional homes may sound rather dire, the concerned homeowner can make significant improvements just by phasing out and replacing toxic items on a gradual basis. Unless a member of your household suffers from chemical sensitivities, and more immediate remodeling is critical to their well-being, you can simply begin making selective choices, starting today, that support you in creating a chemical-free home over time.

This simple three-step formula will help you keep volatile organic compounds (VOCs) and other toxins outside your home:

1. Eliminate: Don't bring in any new fume-emitting materials such as particleboard, carpet or finishing materials.

2. Encapsulate: Mitigate the effect of any potentially irritating materials with nontoxic sealers (AFM Safecoat makes a great line of carpet and grout sealers; see www.afmsafecoat.com).

3. Ventilate: Maximize air flow through your home, and if you choose materials such as plywood or synthetic countertops, let them air before installing.

Hidden Dangers and Healthy Alternatives

Toxin	Where It's Found	Dangers	Alternatives
<p>Phthalates (pronounced tha-lates)</p>	<p>Plastic shower curtains; vinyl flooring; food packaging and cling wraps; air fresheners</p>	<p>Phthalates have been found to damage reproductive systems and cause respiratory problems, including asthma, in children</p>	<p>Cork, natural linoleum, ceramic tile or wood flooring; plastic food-storage containers labeled with recycling codes 2, 4 or 5; air fresheners made from natural essential oils</p>
<p>Formaldehyde</p>	<p>Wall paneling; engineered wood products such as particleboard and plywood; carpets; as a finish for</p>	<p>Can contribute to concentration difficulty and memory loss; linked to several types of cancers and chronic fatigue</p>	<p>Solid wood; wheatboard; cork, natural linoleum, ceramic tile or wood flooring; natural fabrics finished with low-impact dyes</p>

	fabrics		
Solvents (trichloroethylene, toluene)	Paints and paint strippers; stains and varnishes; adhesives	Damage to central nervous system; headaches, nausea, fatigue, mental confusion	Natural and no-VOC or low-VOC paints; water-based stains
Combustion byproducts (carbon monoxide, carbon dioxide, nitrogen dioxide, nitrous oxide)	Furnaces, water heaters, woodstoves, gas stoves and other combustible appliances	Affects cardiovascular and nervous systems; can cause depression, fatigue, irritability, inability to concentrate, chemical sensitivities	Make sure all appliances are well vented; isolate combustion gases from living space or use sealed-combustion appliances
Pesticides	Around and under house foundations; in building products such as treated wood	Probable carcinogens; may cause birth defects, learning disorders, neurological disorders, allergies, immune system disorders	Do not treat soil near or under house; eliminate or seal building products that contain biocides, such as pesticides, herbicides, fungicides and insecticides; prevent pest invasions through use of physical barriers and moisture control

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