# Simple Steps to a Healthier Home

The Environmental Protection Agency estimates people spend approximately 90 percent of their time indoors and scientific evidence has indicated that the air within homes and other buildings can be more polluted than the outdoor air in even the largest and most industrialized cities.[1] Below are some simple steps you can use to improve your home's indoor air quality thereby reducing your exposure to potentially harmful chemicals.

**Choose no-Volatile Organic Chemical (VOC) products.** Levels of particulate and some gaseous air pollutants inside buildings can be 2-5 times higher than outdoor levels and levels of synthetic organic volatile organic compounds (VOCs) are as much as ten times higher indoors than outdoors.[2,3] Products used in the home can degrade indoor air quality during the application process or by off-gassing pollutants such as formaldehyde and other VOCs. Paints, stains, adhesives, pressed wood furnishings, and carpets can off-gas VOCs into your home.

To help reduce the levels of VOCs in your home, choose:

- No-VOC paints and stains
- Natural flooring materials such as cork and linoleum
- Natural wood furniture instead of pressed wood or engineered wood
- Low-VOC carpeting and upholstery products

Increase ventilation by opening doors, windows, or using fans, to maximize air circulation in your home.

**Reduce the need for pesticide use** by preventing pests. Pesticides (insecticides, herbicides, fungicides, and various other substances used to control pests) can harm humans, animals, or the environment because they are designed to kill or otherwise adversely affect living organisms.[4] Follow these simple suggestions to prevent pests:

- Store food in sealed plastic or glass containers
- Fix leaky plumbing and do not let water accumulate
- Caulk or screen entry points into your home

If you determine you must use a pesticide:

- Always read and follow the instructions and safety warnings on the pesticide label
- Keep pets and children away from areas where pesticides have been applied
- Don't use outdoor chemicals indoors. Many chemicals intended for use outdoors are dangerous to use indoors because they will remain toxic longer inside than they would outdoors.

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References:

1. The Inside Story: A Guide to Indoor Air Quality, http://www.epa.gov/iaq/pubs/insidest.html
2. United States Environmental Protection Agency, http://www.epa.gov/air/basic.html
3. United States Environmental Protection Agency , http://www.epa.gov/iaq/voc.html
4. United States Environmental Protection Agency, http://www.epa.gov/pesticides/about/index.html

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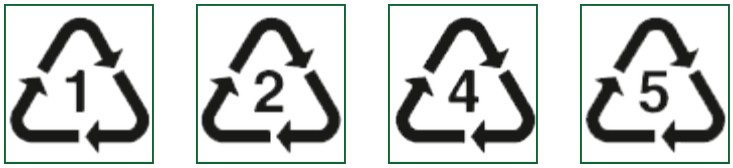
**Choose plastics carefully. Some plastics are smarter choices than others.**[5] For example, Bisphenol A (BPA) is present in some polycarbonate plastic and can leach from the plastic under certain conditions. Exposure to BPA may cause negative health effects.[6]

**Safer Choices:**

Select safer plastics that use polyethylene (#1, #2, and #4) and polypropylene (#5), which require the use of less toxic additives. They also are non-chlorinated.




**Avoid:**

Avoid choosing products that use phthalates (#3), styrene (#6), and BPA (#7) which can be found in baby bottles or sippy cups.


Cook in glass, stainless steel or cast iron pans and microwave in glass. Heating food in plastic containers may increase the rate of chemical leaching. Store foods in glass, ceramic, or stainless steel. If you must use plastic, select containers following the guidelines above to choose wisely.

**Use natural air fresheners.** Fragranced consumer products, such as air fresheners, can contain potentially harmful chemicals including suspected carcinogens and hormone mimicking chemicals that are often not disclosed on product labels or material safety data sheets (MSDSs.)[7] Place dried flowers and spices such as lavender, eucalyptus, orange peels, and ginger around your home to help freshen the air naturally.

**Be aware of "Greenwashing."** Growing consumer interest in environmentally friendly products has led many companies to produce or promote their "green" products. It is not always easy to know what the manufacturer means when they label their products "green." To better evaluate a green product, keep these tips in mind:

- Read product labels carefully. A "green" product may still be potentially harmful to your health
- Look for specific information on the product. Don't just believe the advertising claims
- Investigate the toxicity of the product's ingredients by searching for its MSDS online

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References:

5. National Geographic Society, The GREEN GUIDE, http://www.thegreenguide.com/buying-guide/plastic-containers
6. Le HH, Carlson EM, Chua JP, Belcher SM. Bisphenol A is released from polycarbonate drinking bottles and mimics the neurotoxic actions of estrogen in developing cerebellar neurons. Toxicol Lett. 2008;176:149–156.
7. Steinemann AC, Fragranced consumer products and undisclosed ingredients, Environ Impact Asses Rev (2008), doi:10.1016/j.eiar.2008.05.002