Cleaning and sanitizing is an important step in reducing the spread of illnesses. However, many products commonly used for household cleaning and maintenance are among the most hazardous and potentially dangerous toxins you will find in your home.

**A source for indoor pollution**
Studies by the Environmental Protection Agency show that indoor air quality is much worse than outside air quality. There are many sources of indoor air pollution, including household products such as cleansers and disinfectants; paints, paint strippers, and other solvents; wood preservatives; aerosol sprays; moth repellents and air fresheners. Many common cleaning and household products such as furniture cleaners and polishes, floor cleaners and polishes, oven cleaners, multipurpose cleaners and carpet shampoos contain volatile organic compounds (VOCs), organic solvents that easily evaporate into the air, and into the lungs (and children breathe more air per pound of body weight than adults).

**Exposure to cleaning chemicals**
As with other pollutants, the extent and nature of the health effects of exposure to these materials will depend on many factors, including the amount of exposure, the duration, the toxicity or strength of the toxin and the age, gender and health status of those exposed.

The short-term effects may include irritation of the eyes, nose and throat, headache, mild dizziness, nausea, diarrhea, skin rashes, allergic reactions and asthma flares. Long-term exposure can cause damage to the nervous, reproductive, endocrine and immune systems; birth defects; brain cancer and leukemia.

Household cleaning products are also reported to be responsible for unintentional poisonings in children less than 6 years of age.

**Tips to reduce exposure**
- Read the labels of products you are considering buying. Buy the products labeled “caution” or “warning” since these are less harmful than those labeled “poison” or “danger.”
- When purchasing cleaning products, look for key words such as natural ingredients, non-toxic, biodegradable and citrus-based.
- Avoid products with statements such as, “be sure room is ventilated,” “wear protective eye protection and/or gloves,” “harmful if swallowed,” “flammable,” “corrosive,” or “irritant,” as these indicate hazards to health.
- Choose pump sprays over aerosols.
- Store products safely in a locked cabinet, in their original containers, in a well-ventilated area, but out of reach of children and pets.
- Avoid excessive use. Reduce the need to use more toxic products by preventing the growth of molds and bacteria, and by cleaning up immediately. Use safe alternatives (ingredients such as baking soda, liquid soap and detergents, and white vinegar and lemon juice), that often work just as well as more toxic products.
- Use products according to manufacturer’s directions and for their intended purpose. Never mix with other products unless directed on the label.
- Keep products in their original container.
- Make sure you provide plenty of fresh air when using these products.
- Choose products that are packaged to reduce the chance of spills, leaks and child-tampering.
- Unused or partially-used products do not go in the trash—bring them to the Household Hazardous Waste Center. Buy in quantities that you will use soon.
- Use water-based latex paints that 1) contain no solvents, and 2) have zero or low volatile organic compounds (VOCs).

by A. Rahman Zamani, MD, MPH

**Resources and References**
The Healthy Schools Network at www.healthyschools.org/index.html.
The Environmental Protection Agency at www.epa.gov.