

FACT SHEET

Cleaning Chemicals and Health

Exposure to chemicals in common cleaning products, through skin absorption, inhalation and ingestion can cause a variety of health problems. Persistent headaches, dizziness, skin irritation and respiratory illness can occur from acute (significant one-time) exposures. In addition, asthma, allergies, learning disabilities, reproductive disorders and varying types of cancer are associated with chronic, or frequent low-dose exposures over a longer period of time. Though few of these chemicals have been studied specifically for their effects on children, children are more sensitive to chemicals and thus may be at higher risk than adults for problems associated with these chemicals.

Asthma

About 4.8 million American children under 18 have asthma. Asthma, a chronic disease of the lungs, can be inherited. However, with rapidly rising rates over the last 20 years, it is now thought that environmental factors are contributing to its onset. Indoor air pollutants such as nitrogen dioxide, pesticides, plasticizers, and volatile organic compounds (VOCs) may contribute to asthma development. Many cleaners used in schools contain VOCs, pesticides and fragrances, all of which may trigger asthma attacks and contribute to the development of the disease.

Cancer

Both adult and childhood cancer rates have been increasing in America over the past few decades. For children, "Acute lymphoblastic leukemia is up 10.7%, brain cancer (glioma) is up 30%, osteogenic sarcoma (a form of bone cancer) is up 50%, and testicular cancer (in young men) is up 60%." It is thought that parental exposure to certain chemicals, particularly during pregnancy, may increase a child's risk of cancer. In addition to this, a child's direct exposure to chemicals increases his/her risk. There are numerous chemicals found in cleaning products that have been found to cause cancer in studies². VOCs, which represent a variety of chemicals with varying health effects, contribute to many conditions besides asthma, including cancer. For example, the VOC formaldehyde (used in disinfectants among other cleaning products) has been found to cause cancer in rodents and may cause cancer in humans. Phenolic compounds, used as germicides in cleaners, are suspected carcinogens. Paradichlorobenzene, used as a deodorizer and to control mold and mildew, is also a suspected carcinogen.

Reproductive, Nervous System and Other Effects

Glycol ethers, used in cleaners and degreasers can cause headaches, blurred vision, as well as marrow and reproductive health damage⁵. Alkyl phenol Ethoxylates (APEs), compounds often found in detergents, are suspected endocrine disruptors, which means they mimic natural hormones. There is a strong link between solvents, which are used in a variety of cleaning products, and brain and nervous system effects. Petroleum distillates (petroleum-based solvents that are VOCs) depress the central nervous system and can also damage the liver and kidneys.

