Volatile organic compounds (VOCs) form a large group of chemicals commonly found in both indoor and outdoor air. They can affect air quality. While some VOCs give off distinctive odours at higher levels, they may be present even if you can’t smell them. Exposure to VOCs in indoor air may affect your health, depending on which VOCs are present, the level of VOCs present, and how long you are exposed.

**HEALTH EFFECTS OF VOCs**

For most VOCs, levels found in indoor air in Canadian homes do not usually pose a significant health risk.

Exposure to some VOCs can cause:

- Fatigue
- Nausea
- Dizziness
- Headaches
- Breathing problems
- Irritation of the eyes, nose and throat

**WHO IS AT GREATEST RISK**

- Children
- Seniors
- Pregnant people
- People with existing health conditions, such as asthma, chronic pulmonary disease or bronchitis

**INDOOR SOURCES**

VOCs can get into indoor air from many sources, including:

- Cigarette smoke
- Building materials, such as paint, glues and varnish
- Candles and incense
- Cooking, especially frying
- Combustion sources such as improperly vented fireplaces, wood stoves, gas stoves and furnaces
- Household products, such as air fresheners and cleaning products
- Infiltration from attached garages, such as from vehicle exhaust
- Composite wood products, such as some furnishings and flooring materials

**FOR MOTHERS**

- Pregnant mothers should be cautious about their exposure to VOCs. VOCs can affect the health of the growing fetus. Maternal exposure to VOCs may lead to preterm birth and low birth weight, and may harm the developing nervous system in the fetus. More information is available at: [www.hc-sc.gc.ca](http://www.hc-sc.gc.ca)

**FOR INDUSTRY**

- Industry should be aware that VOCs can be a source of air pollution and that reducing their emissions is important for public health and the environment. More information is available at: [www.hc-sc.gc.ca](http://www.hc-sc.gc.ca)

**FOR THE PUBLIC**

- The public should be aware of the health risks associated with exposure to VOCs and take steps to reduce their exposure. More information is available at: [www.hc-sc.gc.ca](http://www.hc-sc.gc.ca)
REDUCING EXPOSURE TO VOCS IN YOUR HOME

You can reduce exposure to VOCs in your home by:

INCREASING VENTILATION
• when possible use a range hood exhaust fan with outside venting when cooking
• ensure proper ventilation to the outside during use of combustion appliances such as fireplaces, wood stoves, gas stoves and furnaces
• open windows when outdoor air conditions are good
  ◦ check the outdoor air quality in your community by visiting the Air Quality Health Index (AQHI)

AVOIDING SMOKING INDOORS
• second-hand smoke contains many different VOCs

Ensuring there is a GOOD SEAL around any doors connecting the house to an attached garage

OPENING THE WINDOWS WHEN USING PRODUCTS, such as:
• glues
• paints
• varnishes
• adhesives

OPENING THE WINDOWS WHEN USING CLEANING PRODUCTS, especially those with strong chemicals
• read and follow label instructions of all cleaning products

CHOOSEING LOW-EMISSION PRODUCTS when possible
• some composite wood products, paints, varnishes and chemical cleaning products may emit fewer VOCs than others
• store products properly

MINIMIZING THE USE OF SCENTED PRODUCTS, such as plug-in or aerosol deodorizers (air fresheners)
• these products can hide odours by producing VOCs

For more information on VOCs, please visit the Health Canada website or contact us at air@hc-sc.gc.ca