

Indoor Air Quality in the Workplace – A Shared Responsibility

Indoor air quality can have a major impact on the health, comfort, well-being and productivity of building occupants. North Americans spend up to 90% of their time indoors, inhaling pollutants that are several times higher than outdoor concentrations. Good indoor air quality depends on the actions of everyone in the building and is therefore a shared responsibility.

There are many potential sources of indoor air pollutants, of which may singly or in combination, produce adverse health effects. Because air pollutants travel and interact with other pollutants, they cause people to react differently, and make identifying the cause of the poor air quality slow and difficult.

Controlling indoor air quality involves integrating three main strategies;

1. Managing the sources of pollutants either by removing them from the building or isolating them from people through physical barriers, air pressure relationships, or by controlling the timing of their use.
2. Diluting pollutants and removing them from the building through ventilation.
3. Using filtration to clean the air of pollutants.

Sources of Indoor Air Pollution

Depending on the indoor workplace environment, indoor air pollution is caused by an accumulation of contaminants that come primarily from inside the building, although some originate outdoors. These can be divided into three main groups;

Biological – mould, dust mites, pollen, water leaks and spills, inadequate humidity, animal dander, pests, plants

Chemical – tobacco smoke, emissions from photocopiers, printers, office equipment, furnishings, wall, ceiling and floor coverings, cleaning products, perfume, deodorants, glues, adhesives, markers, products produced within the building, processes within the building, external sources

Particles – aerosols, dust, dirt, activities such as sanding, grinding, mixing, printing, copying

Health Effects of Indoor Air Pollution

Depending on the type of pollutant, concentration and the duration of exposure, the range of symptoms are wide and variable. People can react very differently when exposed to the same contaminants at similar concentrations. For example, some people can develop severe allergic reactions to biological contaminants to which other people will not react. For people with asthma and other pre-existing conditions, exposure to irritants, gases or particles can cause life-threatening or debilitating conditions. In general, headache, fatigue, irritation of the eyes, nose and throat and some respiratory symptoms are common.

What can you do to improve the air in your workplace?

- Do not block air vents or grills
- Comply with the building smoking policy (some buildings are smoke-free)
- Dispose of garbage promptly and properly
- Eat in designated areas only
- Avoid bringing products into the building that could release harmful or bothersome odors or contaminants (air fresheners, perfumes, glues, cleaning products etc)
- Do not clutter your workspace with excess papers, books, binders, boxes, etc., which will collect dust and emit their own gases.
- Notify your building or facility manager immediately if you suspect an indoor air quality problem

What Legislation regulates indoor air pollutants?

At this time, there are no regulations specifically targeting indoor air pollutants. In 1987, Health Canada released the “Residential Indoor Air Quality Guidelines”. Health Canada has not reviewed the levels set for certain pollutants since 1987. The guidelines also do not adequately assess the impact of pollutants on “at risk” populations such as children, the elderly or those who might already be suffering from other illnesses. These guidelines are not enforceable.

Which government agencies have a responsibility for indoor air pollutants?

No level of government is responsible for indoor environments. A wide variety of government ministries, agencies and departments have partial responsibilities for some aspects of indoor environments but none have the legislative authority or accountability to act. Health, Labour, Environment and Housing ministries all have some involvement but none take a lead role. The diversity of agencies involved in this area creates fragmentation of authority and a lack of response to the range of indoor environment issues. Voluntary approaches may be the most effective way of addressing and resolving indoor air quality issues.

If you think your building has an indoor air quality problem.....

If you or others at your workplace are experiencing health or comfort problems that you suspect may be caused by indoor air pollution, you can:

- Inform the building management of your concerns through your usual and proper channels.
- Talk with your doctor or other health care provider, and report your problems to the company physician, nurse or health and safety officer.
- Cooperate with management during any indoor air quality investigation to aid the process of identifying and solving problems.
- Contact the Ministry of Labour if you feel that your workplace management has not adequately addressed your concerns.

For More Information

Contact any of the following agencies for information on indoor air quality; Ministry of Labour, Canadian Mortgage Housing Corporation, local Health Unit, Pollution Probe, Health Canada, Ministry of the Environment & Energy.