

Health and the Environment

Is there cause for concern?

According to the World Health Organization, air pollution is responsible for an estimated 5% of global disease. In addition to acute respiratory infections, air quality is related to the incidence and severity of asthma, heart and lung diseases, allergies, and several types of cancers.

Allergies and Asthma

Millions in the US suffer from allergic problems caused by environmental exposures such as animal (pet dander) and plant (pollen) proteins, pollutants released into the environment, and contaminants encountered within the workplace. Allergic problems include asthma, nasal and sinus allergies, hives, and even severe anaphylactic reactions. Significantly, the prevalence of asthma in the US has increased 75% over a recent 15 year period. There are now more than 17 million asthma sufferers.

Indoor Air Quality (IAQ)

According to the US EPA we spend 90% of our time indoors, one good reason why concern for indoor air quality is warranted. Airborne chemicals, bacteria, fungi, pollen, and dust affect indoor air quality. Common sources of contaminants in office buildings include tobacco smoke; dust; poor maintenance of heating, ventilation and air-conditioning (HVAC) systems; cleaning supplies; pesticides; building materials; and furnishings. Volatile Organic Compounds (VOCs) such as formaldehyde, naphthalene, phenylcyclohexene, styrene and others found in plastics, particle board, plywood, adhesives, fabrics, carpets and carpet padding, paints and stains are primary sources of indoor pollutants.

While we encounter many of these elements in daily life, high concentrations of these contaminants may cause IAQ problems. Common health-related symptoms associated with poor air quality are similar to those of the flu or a cold. Using indoor products with low or no emissions is the most effective way to address the problem. And until governments have written no/low emission standards into law, the best way to determine which products have low or no emissions is to look for third party certifications. Indoor pollutants can be 2 to 5 times greater than outdoor pollutants according to the Greenguard Environmental Institute.

Outdoor Air Quality (OAQ)

Outdoor air quality problems typically result from sources such as factories and forest fires, and fossil fuel combustion for transportation and energy production. Contaminants include particulates, carbon dioxide, sulfur oxides, and lead. Transportation-related pollutants resulting from fuel combustion deserve special mention since they represent one of the largest contributors to unhealthy air quality. Many, including ozone, sulfur dioxide, and particulate matter, are respiratory irritants.

Pesticides

Each year, approximately two billion pounds of pesticides are used in the United States, one-fifth of total global pesticide use. When used properly, pesticides can prevent illness and death by controlling diseases such as malaria, and West Nile virus. On the other hand, exposure to high levels of pesticides may cause respiratory, gastrointestinal and allergic symptoms with long-term exposure associated with neurological diseases such as Parkinsons and Alzheimers.

According to the National Cancer Institute, "Studies of people with high exposures to pesticides, such as farmers, pesticide applicators, crop duster pilots, and manufacturers, have found high rates of blood and lymphatic system cancers, cancers of the lip, stomach, lung, brain, and prostate, as well as melanoma and other skin cancers".

Congratulations to enthusiasts of fresh air and the organic movement. For the rest of us, the operable question is "how high is high"?