



## **Sick Building Syndrome: How it is affecting you and what you can do about it**

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Do you feel sick at work but healthy at home? The building where you work may be causing you to feel acute discomforts such as headaches; eye, nose, or throat irritation; dry cough; dry or itchy skin; dizziness and nausea; difficulty concentrating or even fatigue. In other words you may be suffering from Sick Building Syndrome. According to the United States Department of Environmental Protection (USEPA) the term Sick Building Syndrome is used to describe situations in which building occupants experience acute health and comfort effects that appear to be linked to time spent in the building, but no specific illness or cause can be identified.

Sick Building Syndrome has been linked to three main sources. The first cause is inadequate ventilation. Many older buildings have been designed to provide only 5 cfm of outdoor air per occupant. However, the American Society of Heating Refrigerating and Air-Conditioning Engineers (ASHRAE) recently revised its ventilation standard to provide a minimum of 20 cfm of outdoor air per person in an office building. Fresh air is important to ensure the presence of oxygen in the air. The lack of oxygen can cause headaches, dizziness and increased heart rate. The measurement of contaminants that can push oxygen out of the air (such as carbon dioxide) is a good way to measure oxygen levels.

The presence of volatile organic compounds (VOCs) within office air may also contribute to Sick Building Syndrome. According to the USEPA research shows low to moderate levels of multiple types of VOCs within indoor air may produce acute reactions. VOCs may have their source from combustion products associated with improperly ventilated heating units. VOCs can also have their source from indoor pollutants (such as adhesives, carpets, upholstery, manufactured wood products copy machines, and cleaning agents) or outside sources (such as cars) entering the building through poorly located intake vents, windows or other openings. In order to reduce common VOCs within your office air, low emitting building materials and furniture should be used. Copy machines should be placed in a separate properly ventilated room. Additionally tests can be performed to determine if VOCs are present in your office air.

Finally, sick building syndrome could be related to the presence of mold in ducts; humidifiers and drain pans or where water has collected on ceiling tiles, carpeting or insulation. Molds are simple, microscopic organisms, found virtually everywhere, indoors and outdoors. Since mold is so tiny whether it is alive or dead it is able to easily travel through air and into our bodies. Mold begins to grow in excess and impact our indoor air when they are supplied with a food source and moisture. Food sources can be any high organic content material including wood, paper, cotton, wicker and drywall. Moisture can range from one flood event to humid stagnant air present over an extended period of time. In order to prevent mold growth within buildings humidity levels should be maintained below the dew point. Additionally, HVAC systems should be properly cleaned and if any flooding

occurs it should be properly remediated immediately following the flooding event.

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