"Indoor Environmental Quality," as the name implies, simply refers to the quality of the air in an office or other building environments. Workers are often concerned that they have symptoms or health conditions from exposures to contaminants in the buildings where they work. One reason for this concern is that their symptoms often get better when they are not in the building. While research has shown that some respiratory symptoms and illnesses can be associated with damp buildings, it is still unclear what measurements of indoor contaminants show that workers are at risk for disease. In most instances where a worker and his or her physician suspect that the building environment is causing a specific health condition, the information available from medical tests and tests of the environment is not sufficient to establish which contaminants are responsible. Despite uncertainty about what to measure and how to interpret what is measured, research shows that building-related symptoms are associated with building characteristics, including dampness, cleanliness, and ventilation characteristics.

Indoor environments are highly complex and building occupants may be exposed to a variety of contaminants (in the form of gases and particles) from office machines, cleaning products, construction activities, carpets and furnishings, perfumes, cigarette smoke, water-damaged building materials, microbial growth (fungal / mold and bacterial), insects, and outdoor pollutants. Other factors such as indoor temperatures, relative humidity, and ventilation levels can also affect how individuals respond to the indoor environment.

Understanding the sources of indoor environmental contaminants and controlling them can often help prevent or resolve building-related worker symptoms. Practical guidance for improving and maintaining the indoor environment is available.

Workers who have persistent or worsening symptoms should seek medical evaluation to establish a diagnosis and obtain recommendations for treatment of their condition.

Dampness and Mold Evaluation Tool
NIOSH has developed an observational evaluation tool for dampness and mold in buildings. The tool is currently in review to become an official NIOSH document. The goal of the tool is to provide valuable information for motivating remediation, prioritizing intervention, and evaluating remediation effectiveness. The tool consists of:

1. A form which is used to evaluate signs of dampness, water damage, mold growth, and musty odors in rooms and areas throughout a building.
2. A Visual Basic data entry application to enter data collected from hard copy evaluation forms for electronic record keeping and reports. Data is stored in a Microsoft Access database. The software may also be implemented on PC-based tablets. The software is still under development. Once completed, the software will be made available at this website.

For additional information or to receive a form and instructions for use, contact us at moldsheet#1@cdc.gov (mailto:moldsheet#1@cdc.gov).

NIOSH Resources

Building Air Quality

The Building Air Quality Action Plan is intended to be used in concert with the more comprehensive Building Air Quality: A Guide for Building Owners and Facility Managers (BAQ). (See below.) This resource meets the needs of building owners and managers who want an easy-to-understand path for taking their building from current conditions and practices to the successful institutionalization of good IEQ management practices.


In recognition of the need for practical indoor air quality advice for building owners and facility managers, EPA and NIOSH worked jointly to produce this written guidance on preventing, identifying, and correcting indoor air quality problems.

Health Hazard Evaluations
NIOSH conducts investigations of possible health hazards in the workplace. These investigations, called Health Hazard Evaluations (HHEs), are conducted under the authority of the Occupational Safety and Health Act of 1970 and the authority of the Mine Safety and Health Act of 1977, which authorize the Secretary of Health and Human Services, following a written request from employees, authorized representative of employees, or employers, to determine whether any substance normally found in the place of employment has potentially toxic effects in such concentrations as used or found.

Some recent HHE reports related to indoor air quality have been listed below, but for a comprehensive listing, please search the HHE Database (http://www2a.cdc.gov/bhe/search.asp).
National Occupational Research Agenda - Indoor Environment (http://www2.cdc.gov/NORA/noratopictemp.asp?rscharea=ie)
The goal of the NORA Indoor Environment (IE) Team is to focus and facilitate research, through broadly based multi-sector partnerships, that will improve the health of workers in indoor environments.

This guide contains recommendations to help ensure that HVAC systems contaminated with flood water are properly cleaned and remediated to provide healthy indoor environments.

Hazard Controls (http://www.cdc.gov/niosh/hazcomm-hazid.html)
HCs are brief 1-2 page, user-friendly documents that describe control techniques documented to substantially reduce hazardous exposures to workers in a particular application/industry process.

http://www.cdc.gov/niosh/topics/indoorenv/