Central Michigan University employees are committed to promoting safety at work, on-campus, as well as, at home.

The mission of Environmental & Safety Services is to promote safety and protection of human and physical assets of Central Michigan University. To assist in developing a safe campus environment, ESS provides information encouraging the campus community to practice safe habits at work and at home. Please feel free to share this information with others.

The term “Sick Building Syndrome” (SBS) is used to describe situations in which building occupants experience acute health and comfort effects that appear to be linked to time spent in a building, but no specific illness or cause can be identified. The complaints may be localized in a particular room or zone, or may be widespread throughout the building. In contrast, the term “Building Related Illness” (BRI) is used when symptoms of diagnosable illness are identified and can be attributed directly to airborne building contaminants.

INDICATORS of SBS:

- Building occupants complain of symptoms associated with acute discomfort, e.g., headache; eye, nose, or throat irritation; dry cough; dry or itchy skin; dizziness and nausea; difficulty concentrating; fatigue; and sensitivity to odors. The cause of these symptoms is not known.
- Most complainants report relief soon after leaving the building.

It is important to note that complaints may result from other causes. These may include an illness contracted outside the building, acute sensitivity (e.g., allergies), job related stress or dissatisfaction, and other psychosocial factors.

CAUSES OF SBS:

- Inadequate ventilation can occur if heating, ventilating, and air conditioning (HVAC) systems do not effectively distribute air to people in the building. The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) recently revised its ventilation standard to provide a minimum of 15 cfm of outdoor air per person (20 cfm/person in office spaces).

- Chemical contaminants from indoor sources can come from sources inside the building. For example: adhesives, carpeting, upholstery, manufactured wood products, coy machines, pesticides, and cleaning agents may emit volatile organic compounds (VOC’s). Other VOC’s are combustion products such as carbon monoxide, nitrogen dioxide, as well as respirable particles, that come from unvented kerosene and gas space heaters, woodstoves, fireplaces, and gas stoves.

- Chemical contaminants from outdoor sources can enter a building from motor vehicle exhausts; plumbing vents, and building exhausts (e.g., bathrooms and kitchens); these enter through poorly located air intake vents, windows, and other openings.

- Biological contaminants are bacteria, molds, pollen, and viruses. These contaminants can breed in stagnant water that has accumulated in ducts, humidifiers and drain pans, or where water has collected on ceiling tiles, carpeting, or insulation. Sometimes insects or bird droppings can be a source of biological contaminants.

Sources

http://www.epa.gov/iag/pubs/sbs.html
BUILDING INVESTIGATION PROCEDURES

- An indoor air quality investigation procedure is best described as a cycle of information gathering, hypothesis formation, and hypothesis testing. It generally begins with a walkthrough inspection of the problem area to provide information about four basic factors: the occupants, the HVAC system, possible pollutant pathways, possible contaminant sources and air samplings.

EDUCATION AND COMMUNICATION

- Education and communication are important elements in both remedial and preventive indoor air quality management programs. When building occupants, management, and maintenance personnel fully communicate and understand the causes and consequences of IAQ problems, they can work more effectively together to prevent problems from occurring or to solve them in a timely and efficient matter.

Environmental and Safety Services is here for your Indoor Air Quality Concerns. If you suspect a problem with your air in your building, contact us at 989-774-7398.