

Give Your Building an Air Check



When workers complain that their building is making them sick, it's important to investigate thoroughly.

Indoor air issues most often begin with health or comfort complaints. Someone in the office complains to the office manager, supervisor or building manager. The complaints may involve pure comfort allegations—too hot, too cold, too dry—or, they may involve more specific complaints, such as headaches, burning eyes and nose, red eyes, cough, fatigue and nosebleeds. On rare occasions they may be even more dramatic, such as mass faintings. You need to decide whether these complaints indicate a serious medical problem or can be managed by a nonmedical person. Complicating the matter is the dual nature of such complaints. On one hand, complaints may be due to actual physical problems associated with the environment. Or, they may be due to health problems unrelated to the office, various psychological and/or emotional factors, or a combination of factors.

Emotional stressors are no less a concern than environmental ones and, in fact, are probably both more common and more serious to the organization's integrity and financial risk. Table 1 presents many of the potential causes of symptoms in office workers. Note that symptoms which people associate with the building may or may not be related to the building. A

good rule of thumb is that once concerns become widespread, people will associate more and more symptoms with the building whether or not they are actually related. Table 1 indicates that even symptoms which are accurately associated with the building may not have anything to do with indoor air quality. The rush to judgement that "the air is bad" has a random chance of being correct without a complete investigation of the medical issues and proper correlation with environmental findings.

Causes of Symptoms

Medical practice's essence is the differential diagnosis. If you complain about a headache, your physician will get a more detailed history and arrive at a preliminary differential diagnosis, which may include a brain tumor, eye strain, cervical strain, migraine, sinus infection, stress or many other conditions. Appropriate follow-up tests are designed to rule out the most serious causes, such as a tumor. The worker complaint evaluation process is no different. Each symptom has many possible causes, which can only be ruled in or out through a careful history, physical examination and proper testing targeted to the differential diagnosis. Unfortunately, "indoor air complaints" are only

rarely evaluated in this fashion. Frequently the first person involved is a heating, ventilating and air conditioning engineer, a maintenance person or an environmental consultant. Often, the complaint is linked to an air-related problem. That would be a bit like sending everyone with a headache to a neurosurgeon to explore the brain for a tumor.

Symptoms which workers may associate with the workplace are often quite varied in nature, having little to do with one another or with a common cause. Figure 1 illustrates the chaotic and diverse nature of symptoms or disorders commonly reported by office workers, which they may relate to the workplace.

In the case of symptoms complaints associated with office buildings, the differential diagnosis is complicated by a multi-dimensional consideration. Not only are we trying to learn whether the headache is due to eye strain or a brain tumor, but we're also trying to determine whether environmental and/or psychosocial factors at work are contributing. Such a differential diagnosis is also complicated by multidisciplinary considerations. The person who diagnoses causes of headaches isn't generally the one who decides whether the HVAC system is working properly.

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