



Investigating Mold in Minnesota Public Schools

Environmental Health Division
Indoor Air Unit

This fact sheet summarizes the main messages of the “*Recommended Best Practices for Mold Investigations in Minnesota Schools*” and provides additional public health advice on mold in schools. This “best practices” guidance document was created by the Minnesota Department of Health (MDH) to assist public school staff in investigating the causes of indoor mold concerns and in finding cost-effective solutions. The intended audience is staff of Minnesota public schools such as Indoor Air Quality Coordinators, facilities and maintenance personnel, health and safety staff, and other school officials.

When is Mold a Concern?

If mold can be seen or smelled, it is a concern. However, every school contains some mold. So do our homes, offices and the outdoor air.

When live mold spores encounter moisture from building problems such as flooding, water intrusion, an ongoing leak, or even high relative humidity, they may be able to grow. Once mold is established, the amount of mold may increase quickly and colonies can spread if enough moisture is available. Moisture control is the key to preventing and controlling mold problems.

Mold may affect people’s health and comfort when it has been allowed to grow and multiply indoors. When this happens, the chances increase that students and staff may be exposed to high levels of mold. People can be exposed by breathing airborne mold particles, getting mold in their eyes, by swallowing moldy food items, or by skin contact with moldy materials.

What are the Health Effects of Indoor Mold?

Health effects of exposure to indoor mold can range from mild to severe. However, specific health effects can be difficult to predict for any given individual. Effects may depend on the types and amounts of mold present and conditions under which they are present. Susceptibility to the effects of mold also varies from person to person and may depend on an individual’s health status. Allergic responses or allergy-like symptoms, such as irritation of eyes, nose and throat, runny nose, and rashes, are the most commonly reported problems. Although rare, more severe effects such as asthma attacks, hypersensitivity pneumonitis, infections, or toxic reactions are also possible.

People most likely to be susceptible to some of the effects of mold include those with respiratory problems such as allergies or asthma, a compromised immune system, or the elderly and the very young. **MDH recommends that anyone who is concerned that they may have health problems due to mold, see a medical professional experienced in such matters.**

How Should a School Investigate a Mold Concern?

The Minnesota Department of Health **does not** recommend mold testing during the initial efforts to respond to a potential mold problem. Furthermore, in the department's opinion, there is no practical, health-based reason to test any visible mold found in a school. MDH considers any active or visible mold growth as a potential health hazard that should be properly corrected as soon as possible.

MDH recommends that school staff rely mainly, at least initially, on the most practical investigation methods appropriate for the situation. The mold investigation guidance describes techniques for identifying conditions in need of intervention, including collecting building history and occupant observations, performing visual and odor assessments, using appropriate moisture diagnostics and mold testing (but only if necessary and when it can be done properly). When it is done properly, mold testing can be a useful tool to help find and assess areas needing correction. It can also be a valuable part of evaluating the success of clean up efforts.

From a public health view, the goals of any mold investigation should always be to locate sites of growth in order to determine how best to control the underlying moisture problem and remove the contamination. The MDH document emphasizes that school staff need to focus on the most critical steps for correcting a mold problem; namely, to find and fix the source(s) of excess moisture and to locate and physically remove the contamination. If mold testing is used as part of an investigation, MDH recommends that school staff follow the investigation and testing advice provided in the guidance document.

Is Testing Needed to Determine if a School is Safe?

Mold testing, as it is typically done, gives a very unreliable "measurement" of the amount of mold present or of what people are exposed to. All of the commonly used testing and analytical techniques have limitations in what they can detect and quantify. For a number of reasons, mold-testing results alone should not be used to predict safety or to rule out potential health risks. Unfortunately, without strong evidence of health symptoms, questions about health and safety for occupants of a moldy building can be extremely difficult to answer or predict.

How Can You Tell if the Mold is "Toxic"?

The term "toxic mold" is largely a creation of the popular media. Currently, there is no complete list of molds that are harmful to humans. In fact, it is likely that many if not all types of mold can cause health problems for some people under certain conditions. There has been relatively little effort to date to identify and test the toxicity of the many different molds that exist. So, despite current knowledge that certain organisms can cause problems for some portion of the population, the full range of health effects caused by most molds is not well understood at this time. For this and other reasons, it is not appropriate to conduct testing solely to find out if specific kinds of mold are present or to rule out the presence of so called "toxic" molds.

Should the School Be Evacuated When Mold is Found?

The mere detection of mold does not necessarily warrant evacuation. It is, in fact, quite normal to find some mold in indoor environments. Even when active mold growth is found, it is too early to conclude that occupants are at risk or need to be removed. The decision to move people should involve careful evaluation of a number of factors.

It is the responsibility of the school officials to determine if evacuation or some other form of control is needed to protect occupants. MDH suggests consideration of the following:

1. What areas, if any, should be evacuated?
2. What is the basis for the decision and how will it be communicated?
3. Who should leave, if a full evacuation is not planned?
4. What impacts will evacuation or relocation have on students and staff?
5. If people are relocated, is new location better?
6. What criteria will be used to determine when to re-occupy and how will the decision be communicated?

How Should a Mold Problem Be Corrected?

It is ultimately up to the school's staff to determine what is needed to resolve any real or perceived mold problem in their building. Many aspects of mold investigation and clean-up decisions must rely on professional judgment and other situation-specific factors – including issues such as budget considerations, potential liability, perceived nature and extent of the problem, as well as the skill and experience of the clean-up workers.

The presence of mold growth in a school is a sign of some design, operation, or maintenance failure or accident, such as a water pipe breaking. A school that is handling a mold problem properly should be able to demonstrate that the moisture problem is being investigated and corrected and that mold contamination is being removed using effective methods to restore the site to a clean condition.

The MDH mold investigation guidance describes basic concepts of mold clean-up and lists additional resources on the subject. MDH is preparing a companion document to provide further guidance on the clean-up of school mold problems. In most cases, when small amounts of mold growth are found, school staff should be able to remove the mold by carefully following the practices and procedures described. Detailed cleaning methods should be used to capture and trap mold particles during removal from non-porous smooth surfaces. When thorough cleaning is unlikely to succeed, removal of the contaminated materials is advised. Considerations for protecting school occupants and limiting the spread of contaminants are also described in the MDH guidance. When contamination is extensive or beyond the abilities of the school district's staff who perform routine cleaning, it is recommended that experienced and trained workers perform mold removal and clean-up.

What is MDH's Role in School Mold Concerns?

The Minnesota Department of Health has no regulatory authority specific to mold in schools. The Indoor Air Unit will provide assistance to school districts, if requested by school officials. Depending on the problem, the assistance may be general information on mold and/or technical advice regarding testing, data interpretation and contaminant removal. MDH does not perform mold or other types of indoor air quality testing.

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To request this document in another format, such as large print, Braille or cassette tape, contact the Minnesota Department of Health Indoor Air Unit at (651)215-0909; TDD (651)215-0707; or toll-free through the Minnesota Relay Service at (800)627-3529.