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TO: **PRINCIPALS and DIRECTORS**

FROM: **Dennis Van Horn, Associate Superintendent for Business Affairs**
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Lincoln/Lancaster County Health Department

SUBJECT: INDOOR AIR QUALITY FOR SCHOOLS (MOLD GUIDELINES)

The health impact of molds growing in school buildings has been the recent topic of several reports in the newspaper, national magazines, and television news magazine shows. The information has caused considerable concern among parents, students, staff, and administrators in public schools nationwide.

The term “toxic molds” has appeared in the media and refers to molds that produce mycotoxins. Mycotoxins are hazardous chemical compounds produced by the metabolism of molds. According to the Centers for Disease Control, the hazards presented by molds that may contain mycotoxins should be considered the same as other common molds.

Molds, especially the spores, can cause illness, allergic and asthmatic reactions, skin and respiratory irritation, headaches, and fungal infections. Those most at risk include:

> Children and young adults with asthma, respiratory illness, allergies, immune system disorders, kidney or liver dysfunction, and all special needs students.

The Lincoln-Lancaster County Health Department recommends and endorses the use of the “Indoor Air Quality Tools for Schools” program previously presented to LPS.

> Each school building should have a person designated as the indoor air quality (IAQ) coordinator and have an IAQ committee. It is important that the building IAQ committee have a plan for communicating IAQ concerns and issues to CMF and the health staff.

It is important that you and your staff have a plan of action for an immediate response to water leaks and mold growth. Your staff should also know what steps can be taken to prevent mold growth.

Please review the attached health bulletin. Should you have any questions, need additional information, or when you need assistance please contact the LPS Director of Facilities and Maintenance at extension 1072.

MOLD IN SCHOOLS
AUGUST 2004
LINCOLN-LANCASTER COUNTY HEALTH DEPARTMENT
AND
LINCOLN PUBLIC SCHOOLS

What is the Concern?

Health problems associated with respiratory exposure to elevated doses of mold spores include fungal lung infections, eye, nose and throat irritation, gastrointestinal dysfunction, asthma, and asthmatic responses, nerve dysfunction, and general malaise. Exposure to molds can cause health symptoms of varying severity, especially for children with allergies or respiratory problems.

Public Health Guidelines

There are, at present, no established exposure standards for mold spores in air. A number of public health organizations have recommended general guidelines regarding exposure mold. The Lincoln-Lancaster County Health Department has, on file, a copy of the summarized guidelines and intends to keep current on trends in this area of public health. As new information becomes available, we will provide updates to LPS regarding this issue. For further information regarding molds you can contact the LLCHD at 441-8041.

Guidance for Responding to Water Problem

A plan to respond to water problems and, if required, mold cleanup, should be created jointly by the maintenance department, the principals, and each IAQ committee coordinator. The plan should include certain basic remediation actions:

- Any porous material (such as ceiling tiles, carpets, and sheet rock) that has been wet longer than 48 hours should be considered a likely source of molds. Some materials, such as drapes, can be laundered. Materials such as books and paper products may not be salvageable even if wet less than 48 hours. Carpets wet less than 48 hours need to be cleaned and thoroughly dried. Removal and reinstallation should be considered, if necessary. If the carpet is glued to concrete, it will not likely be salvageable. The underlying concrete retains moisture that is best dried out by removing the carpet and exposing the concrete to dry air for several days.

- Removal of standing water is a priority and should occur in the first 24 hours.

- Dehumidification by air conditioning, where feasible, or by dehumidifiers to remove absorbed excess water should be ongoing for 72 hours or until the environment is reduced to less than 50% relative humidity levels. A good target for moisture control is to control the dew point temperature indoors to between 35 and 55 degrees Fahrenheit.

- Sanitizing hard surfaces after water remediation or with mold growth is in evidence can be done using chlorine bleach mixed at one cup per gallon. Surfaces should be wiped with the sanitizer and left wet for 20 minutes prior to thorough drying.

- In some cases water damage may be hidden and go on for months prior to discovery (i.e., leaking water pipe in a wall, a basement crawl space damp from rain and ground water seepage, or a roof leak between the ceiling and the upper roof). In these cases significant mold growth may occur and require that the affected areas be closed down, sealed off, and decontaminated by trained staff. A complete remediation plan for these situations should be part of the response protocol created by the interested parties. This information is available from the LLCHD, and we can provide on-site assistance on a case-by-case basis.

Prevent Mold Growth

Prevent mold growth by controlling moisture and removing materials most likely to be repositories of excess moisture and dirt. This includes carpeting, soft draperies, wall fabrics, lined ductwork, potted plants, and birds/animals and their cages. Hard surfaces such as rubber/vinyl flooring, tile, and sealed wood are easily cleaned and maintained and do not absorb water. It is recommended that books and paper products be stored, if possible, in air-conditioned spaces during the summer to prevent damage and mildew growth due to high humidity.

In addition:

- Reduce indoor humidity by venting showers, using exhaust fans in food service areas, and using air conditioners or dehumidifiers.
- Inspect the building regularly for signs of mold, moisture, leaks, or spills.
- Prevent condensation on cold surfaces (windows, piping, exterior walls, roof, or floors) by adding insulation.
- Do not use carpet where there are perpetual moisture problems, such as by drinking fountains, classroom sinks, or on concrete floors with frequent condensation.

Should Testing be Done for Mold?

Testing for the presence of mold is seldom useful because of the following issues:

- ✓ Daily, weekly, and seasonal variations in the species that are growing and changes in the temperature, humidity, and available food conditions affecting mold growth means large variation in the airborne mold spore concentrations.

- ✓ Molds will always be found in some concentration in the air both indoors and outdoors.

- ✓ Typical counts indoors (less than 1,500 spores per cubic meter) rarely exceed outdoor counts. Over 17,000 spores per cubic meter of air were present outdoors in Lincoln during the last week of August 2000.

- ✓ There are no established health guidelines for use when interpreting the test results because the dose of mold spores required to cause illness is not clearly defined.

In general, visual inspection for signs of mold, standing water, water leaks, and presence of odor indicative of mold are sufficient indicators of a possible mold problem and the need to take remedative action.

For further information regarding molds you can contact the LLCHD at 441-8041 or the LPS Director of Facilities and Maintenance at 436-1064.