RISK CONTROL:
Best Practices to Prevent Mold in Buildings

Schools and municipal facilities are susceptible to mold for a variety of reasons. Although the presence of mold does not necessarily indicate a problem that requires immediate remediation, be prepared to promptly respond to employee and resident concerns about mold with air-quality testing. The best practice is to prevent mold from becoming a problem in the first place. This guide is intended to help you understand the basics of mold and its prevention

Understanding Mold

Molds are easily recognizable. Fuzzy and usually green in color, they can also appear black, brown, white, yellow or even red. Molds grow on wood, cloth, leather, wallboard, insulation and the foods we eat. They reproduce by making spores, which are invisible to the naked eye. According to the Environmental Protection Agency (EPA), the microorganisms that become mold are always present in our environment.

Where Mold Can Strike

Anywhere moisture is uncontrolled is an ideal environment for mold growth. Mold adheres to and grows on common items such as paper and wood found in most school and municipal buildings. These materials contain the nutrients on which molds thrive. With the addition of moisture, mold can grow on these surfaces within 48 hours.

## Causes of Mold in Buildings

Building Age
Many municipal buildings are older or have been converted from other uses. Buildings constructed from the 1970s through the mid-1990s are especially prone to moisture problems, as are older structures that had significant renovations performed during the same period.

Tight Building Syndrome
Tight insulation and inadequate ventilation can lead to a buildup of moisture in a building — a scenario potentially ripe for mold growth. Inadequate ventilation causes negative pressure. When a door is opened, outside air rushes in, carrying mold spores.

Delayed or Improper Maintenance
Most municipalities and schools operate with minimal staffing and maintenance budgets. Long-term problems can result if roof leaks are overlooked, HVAC repairs are postponed or services that should be contracted out are performed in-house by inexperienced staff. These problems include poor HVAC system performance or leaks that can lead to mold.
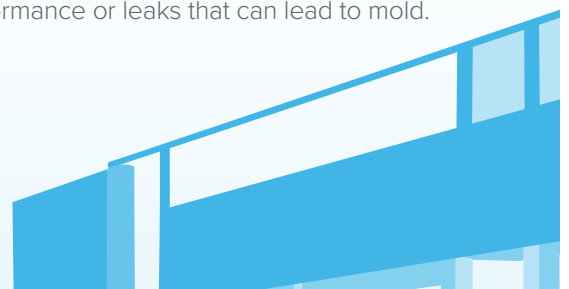
Materials Vulnerable to Mold

- Books and papers
- Carpet and backing
- Acoustic ceiling tiles
- Cellulose insulation
- Roof sheathing
- Wallboard
- Wallpaper

Where to Check for Mold

- Bathrooms
- Locker rooms and showers
- Crawl spaces, below-grade areas and basements
- Kitchens
- Light fixtures
- Leaking HVAC units and drip pans
- Ventilation ducts
- Roofs and soffits
- Windows

Mold Prevention Recommendations

- Clean and dry wet areas such as carpets or wallboard within 24 hours.
- Call in a disaster recovery contractor if mold is prevalent or spreads behind walls or beneath floors.
- Repair leaking plumbing as soon as it is discovered.
- Watch for condensation, water spots, drips or any breach in the building envelope. Look for stained ceiling tiles or water stains on walls or elsewhere.
- Increase ventilation of cold, dry air to reduce indoor moisture. Maintain a relatively low indoor humidity level; the Environmental Protection Agency recommends 30% to 50%.
- Empty HVAC drip pans regularly, and check condensate lines to ensure that they are clear.
- Vent to the outside all moisture-rich environs, such as dryer vents, bathrooms and shower stalls.
- Provide drainage around foundations. Slope the ground away or use drains.
- Clear gutters regularly to prevent water from backing up.
- Address ice dams promptly.
- Use thermographic technology to locate water intrusion that may not be visible.

Additional Resource Links

- "Mold," United States Environmental Protection Agency:
  www.epa.gov/mold/
- "A Brief Guide to Mold in the Workplace," Occupational Safety and Health Administration:
  www.osha.gov/dts/shib/shib101003.html

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