

Health Policy Brief:

Household Mold

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What is mold?^[1]

Mold is a fungus. Fungi are natural and common members of a functioning outdoor ecosystem, as they assist with the decay of materials. Molds are invisible to the naked eye until they have reached their reproductive stage. At this point, molds may appear powdery, furry, slimy, or speckled. Molds come in a variety of colors: black, white, orange, green, and brown. ^[2] A musty smell is often associated with the presence of mold inside buildings. The most common indoor molds are^[3]:

- Cladosporium
- Penicillium
- Aspergillus
- Alternaria
- *Stachybotrys chartarum* (black mold)

Where does mold come from?

Molds enter built environments through tiny airborne spores that land on damp surfaces. It is only when they assist with the breakdown of household items, food, and building materials do they cause harm. When excessive moisture or water accumulates indoors, mold growth often occurs, particularly if the moisture problem remains undiscovered or unaddressed.

Where is it found?

Molds can be found on any surface and in any environment that provides sufficient water and moisture to grow. Mold can be found near leaks in roofs, windows, or pipes, condensation (e.g., warm air on cold surfaces), or where there has been a flood. Mold grows on paper, cardboard, ceiling tiles, and wood. Mold can also grow in dust, paints, wallpaper, insulation, drywall, carpet, fabric, and upholstery. Food, compost piles, and houseplants are also subject to mold development.

How are people exposed to mold?^[4]

People are exposed to mold mainly through inhalation of spores or physical contact with mold or spores. Mold can enter homes through open doorways, windows, vents, and heating and air conditioning systems. Mold outdoors can also attach itself to clothing, shoes, and pets and be carried indoors.

What are the health effects of mold exposure?^[5]

Mold exposure can cause mild to severe allergic reactions (immediate or delayed) and respiratory problems. Molds can irritate the eyes, skin, nose, throat, and lungs. Some can even induce neurotoxic, reproductive, and carcinogenic effects. Among individuals with asthma, mold can exacerbate symptoms and cause asthma attacks. Similarly, immune-compromised individuals are more likely to develop hypersensitivity pneumonitis after mold exposure.

Who is most at risk?^[6]

Individuals with allergies, immune suppression, or respiratory conditions are more sensitive to molds and are more likely to develop fungal infections. Additionally, individuals living or working in a poorly ventilated building with trapped moisture are at a higher risk of mold exposure. Poorly maintained housing may also have conditions conducive to mold, perhaps due to neglect or lack of resources among rental property owners and homeowners, respectively.

Is it incredibly unsafe for children?

Children exposed to mold may develop respiratory problems, such as asthma, allergies, hypersensitivity pneumonitis, and other negative health outcomes^[7] Further, there have been reported cases of bleeding lungs in infants due to toxic mold. ^[8]

Is mold a carcinogen?

Some molds may have carcinogenic properties.^[9]

Is this disruptive to reproductive health?

Repeated and prolonged exposure to black mold can affect the physical development of a fetus. ^[10]

Current Mold Regulations

Federal Mold Laws

The US Environmental Protection Agency (EPA) does not regulate airborne concentrations of mold or mold spores indoors. While there is no federal standard for mold in homes, the EPA does recommend professional remediation of mold-infested areas larger than 10 square feet in homes and a specific protocol for contractors removing mold from school campuses.^[11]

State Mold Laws^[12]

There are currently no statutes or regulations requiring property owners to disclose mold presence in rental housing to prospective tenants or buyers. While mold is not explicitly included in the PA Real Estate Seller Disclosure Law (68 Pa.C.S. §§7301-7314), it does require home sellers to disclose any “known material defects” that includes the “presence of hazardous materials” that may or may not be readily visible to the prospective buyer.^[13] Additionally, PA Statutes Title 53 PS Municipal and Quasi-Municipal Corporations does require proper ventilation in restrooms^[14], buildings, or housing intended for some degree of habitation^[15], and school buildings^[16], which greatly reduces the likelihood of mold growth indoors.

In 2002, Senate Resolution 171^[17] and House Resolution 434^[18] directed the Department of Health to establish a task force to investigate mold in homes, schools, and other buildings. Throughout 2005, the Pennsylvania Mold Task Force developed a report that recommended the consideration of the New York Department of Health Mold Remediation Guidelines as well as the National Institute of Environmental Health Sciences (NIEHS) «Guidelines for the Protection and Training of Workers Engaged in Maintenance and Remediation Work Associated with Mold.»^[19] Although charged with developing a mold assessment and remediation certification, the task force did not reach a consensus on a set of standards for mold professionals.^[20]

Since the 2005 report, successfully passed legislation on mold has been slim, although a handful of resolutions passed. Annually, a day in early April is dedicated as

“National Healthy Schools Day”, and the resolutions include a statement on the impact of mold on young children. In 2013, House Resolution 358 directed the Department of Health to consider regulations supporting nanotechnology and other nontoxic means to control mold and other indoor air pollutants.^[21] That same year, House Resolution 399 urged the Pennsylvania State Real Estate Commission to require the disclosure of «accessible attic» conditions in the Seller’s Property Disclosure Statement, including the presence of mold infestation.^[22] In 2018, House Resolution 1101 recognized the disproportionate prevalence of asthma among African-American children, citing mold as a contributor to this health problem.^[23]

Several states with mold laws specify certification standards for mold professionals and require disclosure of mold hazards at the point of sale or tenant turnover in housing properties. A few examples include:^[24]

- **New York** required mold assessors and remediators to be licensed by the NY Department of Labor since 2015. Licensure involves course work, audited financial statements, and compliance with state guidelines on removal protocols. Homeowners who perform mold removal on their property are exempt from these requirements.
- **California** required sellers of real property containing up to four residential units to complete a disclosure form indicating the presence of all environmental hazards, including mold, that is known to the seller as of 2016.^[25] The California Education Code requires school buildings to be free of mold or mildew to receive school facility funds.^[26]
- **Virginia** required landlords to disclose visible evidence of mold as part of the «move-in inspection reports» starting in 2008.^[27] Prospective tenants may request remedy mold hazards identified in the report before occupancy. As of 2016, if mold is discovered during an occupant’s tenancy and poses a threat to the health or safety of the tenant, the landlord must remediate the hazards and pay any associated relocation costs.^[28]



Local Mold Policy

In Allegheny County, there are no regulations that specifically address indoor mold growth. The Allegheny County Health Department Article VI titled “Houses and Community Environment” defines habitable dwellings as those with proper ventilation (e.g. “openable window area” is greater than four percent of the floor area) and habitable basements as those “free of dampness” on the walls or floors.^[29] Ensuring proper ventilation and minimal dampness will prevent the growth of mold significantly.

Policy Recommendations

Federal

Set a Threshold Limit Value (TLV) for airborne concentrations of molds.^[30]

Adopt the EPA guidance for schools and commercial buildings as a requirement for remediation by a certified mold professional if the total surface area affected exceeds ten square feet.^[31]

State

Require landlords to disclose visible mold or mildew in rental properties before tenant move-in.

Require schools to develop indoor air quality management plans that include prevention and hazard mitigation strategies for mold growth.

Create a state licensing process for mold assessment and remediation professionals, in line with the 2005 PA Mold Task Force’s recommendations to adopt the New York Department of Health Mold Remediation Guidelines and NIEHS “Guidelines for the Protection and Training of Workers Engaged in Maintenance and Remediation Work Associated with Mold.”

Local

Allegheny County could amend Article VI to include the absence of mold in defining a habitable dwelling.

Municipal housing codes may also include the absence of mold as a condition of rental property certificates or licenses and establish mold as a violation that current tenants may report to a code enforcement department.

Endnotes

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