# MOLD & MOISTURE

#### *What are the Health and Safety Risks?*

**M**old is everywhere inside and outside of a home, including the interior surfaces and air, but is typically not a problem until it affects the health of occupants in the home. Mold can have an effect on the health of all family members in a home, and it is important for stakeholders, especially healthcare and service providers, to understand that many families and homeowners do not have a clear understanding of what causes mold, how to treat it, or that it could be impacting their family’s health.

Molds produce allergens and irritants. Inhaling or touching mold or mold spores may cause allergic reactions in sensitive individuals. Allergic reactions to mold are common. Molds can also cause asthma attacks in people with asthma who are allergic to mold. In addition, mold exposure can irritate the eyes, skin, nose, throat, and lungs of various family members. Stakeholders should note that these symptoms could also be attributed to other toxins or hazards in a home.

#### ***Where Do Mold & Moisture Risks Come From?***

Mold is a fungus that is alive and grows in wet or damp places. It is usually gray or black, but can also be white, orange or green. Mold can grow on walls, ceilings, furniture, clothes, or appliances, and it can also grow in hidden places such as behind walls, in attics, and under carpet. In significant quantities, mold usually makes a home smell musty and that smell can identify a potential health hazard. Mildew is a common name for mold that grows in a thin layer on surfaces and molds and mildew are typically found in and around high-humidity areas of a house. If a family lives near water or in a humid climate, then mold is more likely to grow in their home.

Some common places in a home where mold can be found, if the interior environmental conditions are favorable for mold growth:

* In bathrooms, especially around the shower or tub
* In humid or leaky basements and crawl spaces
* Around leaky sinks
* On windows and walls where moisture builds up from condensation or where there is moisture intrusion
* In attics, especially those that are not properly vented or under leaking roofing
* On wet clothes that are not dried quickly
* In closets, or other areas without air circulation
* Under wallpaper or carpets
* In an air conditioner or ductwork
* Inside of kitchen or vanity cabinets
* Around cooktops and countertops

Should a Family Test for Mold in the Home?

**In most cases, if visible mold growth is present, testing is unnecessary.** Since the EPA and other federal agencies have no recommendations on minimum safe levels for mold, testing is not helpful or encouraged. However, surface sampling may be useful to determine if an area has been adequately cleaned or remediated after mold has been removed. Sampling for mold should be conducted by professionals who have specific experience in designing mold sampling protocols, sampling methods and interpreting results.



**What can you do to help the families**

**and communities you serve?**

*Actions for Living in a Healthy Home*

Family Health and Housekeeping Habits

A stakeholder should always advise families that it is important to fix any moisture problem in their home right away, including using dehumidifiers, fixing plumbing and roof leaks, and ventilating kitchens, bathrooms, and dryers to the outside. In addition to these recommendations, stakeholders should encourage families to talk to their health care provider if they think mold is impacting their health. If asthma or allergies are worse at their home, mold may be a trigger. Encourage them to check for mold and moisture problems in each room of their home.

Stakeholders and service providers can also educate families in the community by:

* Encouraging healthcare providers and community assistance organizations to help families to self- assess their homes for asthma/allergen triggers that could include mold and other healthy home hazards.
* Assisting community agencies and health care providers in identifying and advocating for actions families can take to reduce allergens and mold in their home.
* Focusing education, training, and assessments on moisture prevention and safe cleaning of suspected mold areas.

Preventing Significant Moisture and Mold Inside a Home

For each family served, healthy homes stakeholders should recommend that families:

* Repair any leaks in their home right away.
* Keep an eye out for mold and mildew or water stains in the home, including on ceilings, walls, around windows, floors and fabrics.
* Avoid letting water sit in drip pans, basements or air conditioners.
* Find and correct the moisture problem and dispose of moldy materials if mold is suspected, seen, or smelled.
* Avoid letting damp laundry stay wet in the laundry basket or machine.
* Use exhaust fans to move any moist air outside especially from kitchens and bathrooms,
* Make sure clothes dryers are vented to the outside.
* Use a dehumidifier or air conditioner to dry out damp areas.
* Throw away any moldy items that can’t be cleaned
* Store items in basements on shelves above the floor and in sealed plastic containers instead of cardboard boxes.

##### Preventing Significant Moisture Outside a Home

For each family served, healthy homes stakeholders should recommend that families:

* Make sure gutters and downspouts are working and aren’t clogged, and rainwater drains away from the house to prevent wet basements or crawl spaces.
* Keep trees and bushes trimmed away from the home. This will allow air movement to deter mold growth.

Recommended Procedures for Cleaning Up Mold

Before a family attempts to remove mold, the first thing they should do is to figure out the source of the moisture problem. For example, if they have mold on a ceiling, it could be from a leaking pipe or roof above. If they don’t fix the pipe, then the mold will most likely return.

A healthy family member may be able to clean up a small area with mold, but should always wear protective gear including a respirator rated “N-95” or higher. The family member should wear long sleeves and pants, shoes and socks, gloves made of rubber, neoprene, polyurethane, or PVC, and goggles for eye protection. A mix of water and either an all-purpose cleaner, laundry or dish soap will usually be sufficient to remove mold with a stiff scrub brush. The surfaces are then rinsed with clean water and dried. After cleaning up the mold, mold removal guidelines recommend the use of a High Efficiency Particulate Air (HEPA) vacuum or air cleaner to help get rid of mold spores in the air. Any fabrics or porous materials should be discarded.

Stakeholders should note that a professional mold remediation specialist is highly recommended when the mold surface exceeds 100 square feet or more, and the use of bleach to remove mold is not acceptable as it has considerable safety issues. Families should be instructed to keep small children, older and sick people and anyone with allergies or asthma away from the home during cleanup as the cleaning procedure usually makes mold spores more airborne and more easily inhaled.

Health departments and the Cooperative Extension Service in a community can also provide more information to families on mold and mold remediation. For additional “how to” guides to inform families about on how to safely clean up mold, especially after a flood or other disaster, visit the Rebuild Healthy Homes guide and App at [www.hud.gov/healthyhomes](http://www.hud.gov/healthyhomes).