

## How to Prevent mold Problems in your Home.

- ◆ The most important thing to do is to control moisture in your home.
- ◆ Keep the humidity in the house below 50%. Humidity levels above 60% can promote mold growth.
- ◆ Start early after a flood (at least within 24 hours) before mold growth occurs.
- ◆ As soon as you can, attend to leaking pipes, flooded basements, roof leaks, and any other sources of water.
- ◆ When rebuilding make sure to use water resistant materials such as tiles, stone, or deep sealed concrete.
- ◆ Always ensure that the rain water from the gutters or roof drain away from the house.
- ◆ Keep all fabrics dry and store them in well ventilated areas.
- ◆ To reduce moisture inside the house especially in humid months use dehumidifiers or fans.
- ◆ Do not use fans if mold already exists to avoid spreading the mold. Remove the mold first.
- ◆ Allow the A/C to work and dehumidify by ensuring drains are clean.
- ◆ The A/C unit is a dehumidifier, keep windows and doors closed if running the A/C in order to keep humidity out.
- ◆ Have your heating and cooling systems inspected and serviced regularly.
- ◆ Disinfect potential problem spots routinely using Borax solution (1cup Borax to 1 gal water). 1 cup vinegar can be added to solution. Allow to thoroughly dry.

## CHEMICAL USE IN MOLD CONTROL

- ◆ In some isolated cases people may wish to us anti-microbial pesticides (biocides) to clean up mold.
- ◆ In such circumstances it is vital that all such chemicals be labeled for the intended use and handled according to directions given.
- ◆ Always remember that in many indoor mold situations, anti-microbial pesticides are not needed.
- ◆ Almost 100% of the time mold can be controlled by fixing the moisture problem, properly cleaning the affected area, and allowing to thoroughly dry.

### SOME GENERAL CAUTIONS

- ◆ Never mix bleach with ammonia; vapors from the mixture are toxic.
- ◆ Always wear gloves and a mask. Molds usually release spores when disturbed.
- ◆ Exercise caution when discarding items contaminated with mold.
- ◆ Always ask others to leave the area when being cleaned.
- ◆ Work for short time spans and rest in fresh air location.
- ◆ If you are especially sensitive to mold consider paying a licensed contractor to do the cleanup.

### CONTACT INFO:

*Industrial Hygiene Officer*

*2d MLG, G-10,*

*LCDR Tanya N. Bates*

*Phone (910) 451-0581*

*E-mail: tanya.bates@usmc.mil*

# Mold Remediation Guide for the General Public Following a Flood.



Guidelines from:

**FEMA** - Federal Emergency Management Agency.

**OSHA** - Occupational Safety and Health Association

**CDC**- Centers for Disease Control and Prevention.

## What is Mold?

After a flood, excess moisture and standing water contributes to the growth of mold in homes.



Molds are fungi that are found almost everywhere, inside and outdoors, year round. Molds act as nature's decomposers, breaking down organic matter,

and can be various colors including white, orange, green, or black. Molds reproduce by releasing microscopic spores into the air, which can enter homes through windows, doors, cracks, and vents. When mold spores land on damp material they may thrive. The most important ingredient for mold growth is moisture. Controlling moisture sources in your home is the most important step you can take to ensure your home remains mold free.

## Health effects of mold in the home.

Infants and children, the elderly, immune compromised individuals, and people with respiratory problems such as allergies and asthma are more susceptible to mold problems. However, sensitivity to mold varies from person to person.

Exposure to mold and mold spores can cause a range of allergic reactions including:

- ◆ Eye irritation (watery, burning, itchy, blurred vision), runny nose, sore throat, sneezing, nasal and sinus congestion.
- ◆ Coughing, wheezing, difficulty breathing, rhinitis.
- ◆ Asthmatic episodes, headaches, and fatigue.

It is advisable to seek medical attention if you or a member of your family has history of lung disease.

## Steps to follow in mold clean up:

1. Use personal protective equipment, PPE. This includes an N95 NIOSH approved respirator, gloves, safety glasses and hard hat if working overhead. Tyvex coveralls can be used if work clothing can not be cleaned daily.
2. Identify and correct the moisture problem.
3. Remove, bag, and discard non-essential porous material that has been heavily contaminated (i.e., ceiling tiles, leather, cloth, sheet-rock, plaster, paneling, wood products, paper, carpet, padding, etc.). When removing drywall or sheetrock, cut at least 12 inches beyond the area of visible mold. Hard non-porous material such as glass, plastic, or metal can be kept after cleaning and disinfecting.
4. Use a non-ammonia soap or detergent such as Borax in hot water and scrub the affected area. (1 cup Borax to 1 gal of water). Use a stiff brush or cleaning pad on block walls or uneven surfaces.
5. No need to rinse off the solution; however, it can be done with hot water. A wet-dry vacuum is an easy way to pick up excess water.
6. Borax is a natural disinfectant, vinegar is too. Bleach is no longer the recommended treatment; however, if used dilute the solution to 1 cup bleach to 1 gallon of water. Do not use straight bleach—it will not be more effective. It is corrosive and an inhalation hazard.
7. Completely dry the area for two or three days. Raising the temperature and using dehumidifiers will help.
8. Vacuum your home thoroughly, preferably with a HEPA or filtered vacuum.



## Should I hire a professional?

- ◆ Cleaning up mold will increase your exposure to mold and biocide vapors.
- ◆ If you have respiratory problems like asthma or emphysema, or the affected area is large (greater than 10 sq ft, consult with a professional).
- ◆ Having someone test mold is not necessary and is expensive.
- ◆ If you can see or smell mold, you probably have a mold problem.
- ◆ Mold may be hidden behind walls, wallpaper, panel, or embedded in porous material.
- ◆ If after cleaning mold, you still notice an odor you may have hidden mold.
- ◆ You may wish to hire a professional when mold is in difficult to reach places such as in heating, ventilating and air conditioning (HVAC) systems.

## ENSURING REMEDIATION OR CLEANUP IS FINISHED

- ◆ Water or moisture problem has been fixed completely.
- ◆ Mold removal has been completed both visible mold and moldy odors.
- ◆ Revisiting the site after clean up should show no signs of water damage or mold growth.
- ◆ Home occupants should have no complaints or physical symptoms linked to mold or mold spores.

**REMEMBER:** *Hand washing is the single most important thing you can do to protect your health when you clean up after a flood.*