

Protect Your Family From Lead In Your Home



Are You Planning To Buy, Rent, or Renovate a Home Built Before 1978?

Many houses and apartments built before 1978 have paint that contains high levels of lead (called lead-based paint). Lead from paint, chips, and dust can pose serious health hazards if not taken care of properly.



OWNERS, BUYERS, and RENTERS are encouraged to check for lead (see page 6) before renting, buying or renovating pre-1978 housing.

Federal law requires that individuals receive certain information before renting, buying, or renovating pre-1978 housing:



LANDLORDS have to disclose known information on lead-based paint and lead-based paint hazards before leases take effect. Leases must include a disclosure about lead-based paint.



SELLERS have to disclose known information on lead-based paint and lead-based paint hazards before selling a house. Sales contracts must include a disclosure about lead-based paint. Buyers will have up to 10 days to check for lead.



RENOVATORS disturbing more than 2 square feet of painted surfaces have to give you this pamphlet before starting work.

IMPORTANT!

Lead From Paint, Dust, and Soil Can Be Dangerous If Not Managed Properly

FACT: Lead exposure can harm young children and babies even before they are born.

FACT: Even children who seem healthy can have high levels of lead in their bodies.

FACT: People can get lead in their bodies by breathing or swallowing lead dust, or by eating soil or paint chips containing lead.

FACT: People have many options for reducing lead hazards. In most cases, lead-based paint that is in good condition is not a hazard.

FACT: Removing lead-based paint improperly can increase the danger to your family.

If you think your home might have lead hazards, read this pamphlet to learn some simple steps to protect your family.

1

Lead Gets in the Body in Many Ways

**Childhood
lead poisoning
remains a
major
environmental
health problem
in the U.S.**

**Even children
who appear
healthy can
have dangerous
levels of lead in
their bodies.**

People can get lead in their body if they:

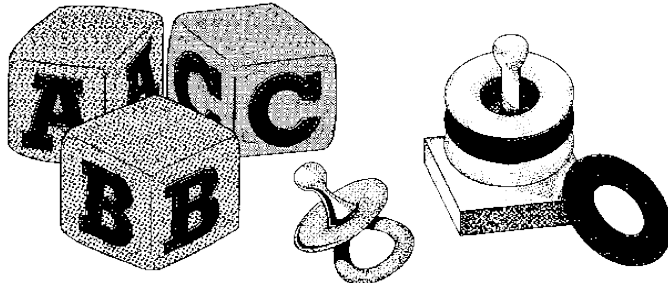
- ◆ Breathe in lead dust (especially during renovations that disturb painted surfaces).
- ◆ Put their hands or other objects covered with lead dust in their mouths.
- ◆ Eat paint chips or soil that contains lead.

Lead is even more dangerous to children under the age of 6:

- ◆ At this age children's brains and nervous system are more sensitive to the damaging effects of lead.
- ◆ Children's growing bodies absorb more lead.
- ◆ Babies and young children often put their hands and other objects in their mouths. These objects can have lead dust on them.

Lead is also dangerous to women of childbearing age:

- ◆ Women with a high lead level in their system prior to pregnancy would expose a fetus to lead through the placenta during fetal development.



Lead's Effects

It is important to know that even exposure to low levels of lead can severely harm children.

In children, lead can cause:

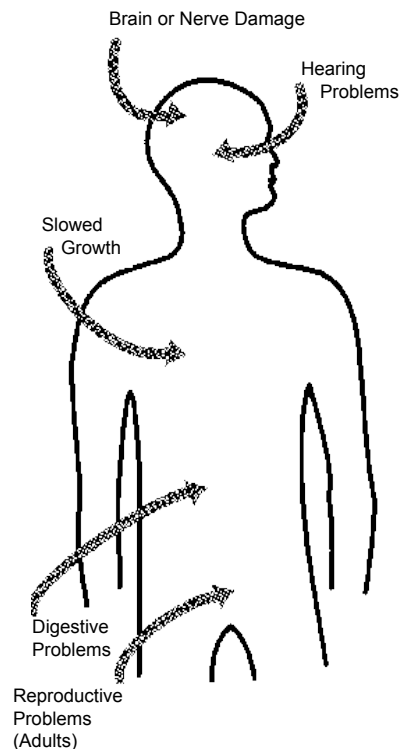
- ◆ Nervous system and kidney damage.
- ◆ Learning disabilities, attention deficit disorder, and decreased intelligence.
- ◆ Speech, language, and behavior problems.
- ◆ Poor muscle coordination.
- ◆ Decreased muscle and bone growth.
- ◆ Hearing damage.

While low-lead exposure is most common, exposure to high levels of lead can have devastating effects on children, including seizures, unconsciousness, and, in some cases, death.

Although children are especially susceptible to lead exposure, lead can be dangerous for adults too.

In adults, lead can cause:

- ◆ Increased chance of illness during pregnancy.
- ◆ Harm to a fetus, including brain damage or death.
- ◆ Fertility problems (in men and women).
- ◆ High blood pressure.
- ◆ Digestive problems.
- ◆ Nerve disorders.
- ◆ Memory and concentration problems.
- ◆ Muscle and joint pain.



**Lead affects
the body in
many ways.**

Where Lead-Based Paint Is Found

In general, the older your home, the more likely it has lead-based paint.

Many homes built before 1978 have lead-based paint. The federal government banned lead-based paint from housing in 1978. Some states stopped its use even earlier. Lead can be found:

- ◆ In homes in the city, country, or suburbs.
- ◆ In apartments, single-family homes, and both private and public housing.
- ◆ Inside and outside of the house.
- ◆ In soil around a home. (Soil can pick up lead from exterior paint or other sources such as past use of leaded gas in cars.)

Checking Your Family for Lead

Get your children and home tested if you think your home has high levels of lead.

To reduce your child's exposure to lead, get your child checked, have your home tested (especially if your home has paint in poor condition and was built before 1978), and fix any hazards you may have. Children's blood lead levels tend to increase rapidly from 6 to 12 months of age, and tend to peak at 18 to 24 months of age.

Consult your doctor for advice on testing your children. A simple blood test can detect high levels of lead. Blood tests are usually recommended for:

- ◆ Children at ages 1 and 2.
- ◆ Children or other family members who have been exposed to high levels of lead.
- ◆ Children who should be tested under your state or local health screening plan.

Your doctor can explain what the test results mean and if more testing will be needed.

Identifying Lead Hazards

Lead-based paint is usually not a hazard if it is in good condition, and it is not on an impact or friction surface, like a window. It is defined by the federal government as paint with lead levels greater than or equal to 1.0 milligram per square centimeter, or more than 0.5% by weight.

Deteriorating lead-based paint (peeling, chipping, chalking, cracking or damaged) is a hazard and needs immediate attention. It may also be a hazard when found on surfaces that children can chew or that get a lot of wear-and-tear, such as:

- ◆ Windows and window sills.
- ◆ Doors and door frames.
- ◆ Stairs, railings, banisters and porches.

Lead dust can form when lead-based paint is scraped, sanded, or heated. Dust also forms when painted surfaces bump or rub together. Lead chips and dust can get on surfaces and objects that people touch. Settled lead dust can re-enter the air when people vacuum, sweep, or walk through it. The following two federal standards have been set for lead hazards in dust:

- ◆ 40 micrograms per square foot ($\mu\text{g}/\text{ft}^2$) and higher for floors, including carpeted floors.
- ◆ 250 $\mu\text{g}/\text{ft}^2$ and higher for interior window sills.

Lead in soil can be a hazard when children play in bare soil or when people bring soil into the house on their shoes. The following two federal standards have been set for lead hazards in residential soil:

- ◆ 400 parts per million (ppm) and higher in play areas of bare soil.
- ◆ 1,200 ppm (average) and higher in bare soil in the remainder of the yard.

The only way to find out if paint, dust and soil lead hazards exist is to test for them. The next page describes the most common methods used.

Lead from paint chips, which you can see, and lead dust, which you can't always see, can both be serious hazards.

Checking Your Home for Lead

Just knowing that a home has lead-based paint may not tell you if there is a hazard.



You can get your home tested for lead in several different ways:

- ◆ A paint **inspection** tells you whether your home has lead-based paint and where it is located. It won't tell you whether or not your home currently has lead hazards.
- ◆ A **risk assessment** tells you if your home currently has any lead hazards from lead in paint, dust, or soil. It also tells you what actions to take to address any hazards.
- ◆ A combination risk assessment and inspection tells you if your home has any lead hazards and if your home has any lead-based paint, and where the lead-based paint is located.

Hire a trained and certified testing professional who will use a range of reliable methods when testing your home.

- ◆ Visual inspection of paint condition and location.
- ◆ A portable x-ray fluorescence (XRF) machine.
- ◆ Lab tests of paint, dust, and soil samples.

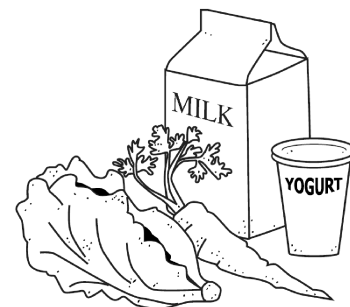
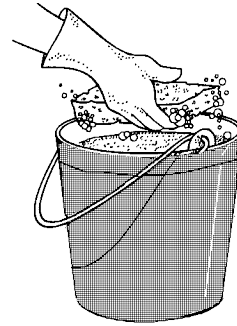
There are state and federal programs in place to ensure that testing is done safely, reliably, and effectively. Contact your state or local agency (see bottom of page 11) for more information, or call **1-800-424-LEAD (5323)** for a list of contacts in your area.

Home test kits for lead are available, but may not always be accurate. Consumers should not rely on these kits before doing renovations or to assure safety.

What You Can Do Now To Protect Your Family

If you suspect that your house has lead hazards, you can take some immediate steps to reduce your family's risk:

- ◆ If you rent, notify your landlord of peeling or chipping paint.
- ◆ Clean up paint chips immediately.
- ◆ Clean floors, window frames, window sills, and other surfaces weekly. Use a mop or sponge with warm water and a general all-purpose cleaner or a cleaner made specifically for lead. REMEMBER: NEVER MIX AMMONIA AND BLEACH PRODUCTS TOGETHER SINCE THEY CAN FORM A DANGEROUS GAS.
- ◆ Thoroughly rinse sponges and mop heads after cleaning dirty or dusty areas.
- ◆ Wash children's hands often, especially before they eat and before nap time and bed time.
- ◆ Keep play areas clean. Wash bottles, pacifiers, toys, and stuffed animals regularly.
- ◆ Keep children from chewing window sills or other painted surfaces.
- ◆ Clean or remove shoes before entering your home to avoid tracking in lead from soil.
- ◆ Make sure children eat nutritious, low-fat meals high in iron and calcium, such as spinach and dairy products. Children with good diets absorb less lead.



Reducing Lead Hazards In The Home

Removing lead improperly can increase the hazard to your family by spreading even more lead dust around the house.

Always use a professional who is trained to remove lead hazards safely.



In addition to day-to-day cleaning and good nutrition:

- ◆ You can **temporarily** reduce lead hazards by taking actions such as repairing damaged painted surfaces and planting grass to cover soil with high lead levels. These actions (called "interim controls") are not permanent solutions and will need ongoing attention.
- ◆ To **permanently** remove lead hazards, you should hire a certified lead "abatement" contractor. Abatement (or permanent hazard elimination) methods include removing, sealing, or enclosing lead-based paint with special materials. Just painting over the hazard with regular paint is not permanent removal.

Always hire a person with special training for correcting lead problems--someone who knows how to do this work safely and has the proper equipment to clean up thoroughly. Certified contractors will employ qualified workers and follow strict safety rules as set by their state or by the federal government.

Once the work is completed, dust cleanup activities must be repeated until testing indicates that lead dust levels are below the following:

- ◆ 40 micrograms per square foot ($\mu\text{g}/\text{ft}^2$) for floors, including carpeted floors;
- ◆ 250 $\mu\text{g}/\text{ft}^2$ for interior window sills; and
- ◆ 400 $\mu\text{g}/\text{ft}^2$ for window troughs.

Call your state or local agency (see bottom of page 11) for help in locating certified professionals in your area and to see if financial assistance is available.

Remodeling or Renovating a Home With Lead-Based Paint

Take precautions before your contractor or you begin remodeling or renovating anything that disturbs painted surfaces (such as scraping off paint or tearing out walls):

- ◆ **Have the area tested for lead-based paint.**
- ◆ **Do not use a belt-sander, propane torch, high temperature heat gun, dry scraper, or dry sandpaper** to remove lead-based paint. These actions create large amounts of lead dust and fumes. Lead dust can remain in your home long after the work is done.
- ◆ **Temporarily move your family** (especially children and pregnant women) out of the apartment or house until the work is done and the area is properly cleaned. If you can't move your family, at least completely seal off the work area.
- ◆ **Follow other safety measures to reduce lead hazards.** You can find out about other safety measures by calling 1-800-424-LEAD. Ask for the brochure "Reducing Lead Hazards When Remodeling Your Home". This brochure explains what to do before, during, and after renovations.

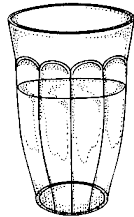
If you have already completed renovations or remodeling that could have released lead-based paint or dust, get your young children tested and follow the steps outlined on page 7 of this brochure.



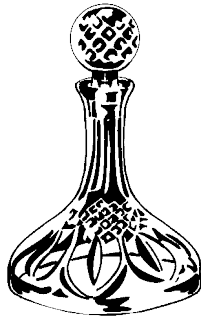
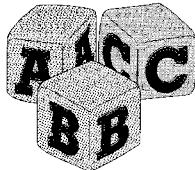
If not conducted properly, certain types of renovations can release lead from paint and dust into the air.



Other Sources of Lead



While paint, dust, and soil are the most common sources of lead, other lead sources also exist.

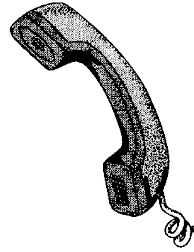


- ◆ **Drinking water.** Your home might have plumbing with lead or lead solder. Call your local health department or water supplier to find out about testing your water. You cannot see, smell, or taste lead, and boiling your water will not get rid of lead. If you think your plumbing might have lead in it:
 - Use only cold water for drinking and cooking.
 - Run water for 15 to 30 seconds before drinking it, especially if you have not used your water for a few hours.
- ◆ **The job.** If you work with lead, you could bring it home on your hands or clothes. Shower and change clothes before coming home. Launder your work clothes separately from the rest of your family's clothes.
- ◆ **Old painted toys and furniture.**
- ◆ **Food and liquids stored in lead crystal or lead-glazed pottery or porcelain.**
- ◆ **Lead smelters** or other industries that release lead into the air.
- ◆ **Hobbies** that use lead, such as making pottery or stained glass, or refinishing furniture.
- ◆ **Folk remedies** that contain lead, such as "greta" and "azarcon" used to treat an upset stomach.

For More Information

The National Lead Information Center

Call **1-800-424-LEAD (424-5323)** to learn how to protect children from lead poisoning and for other information on lead hazards. To access lead information via the web, visit www.epa.gov/lead and www.hud.gov/offices/lead/.

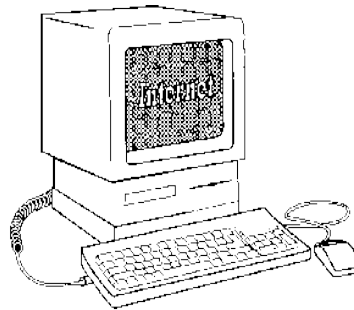


EPA's Safe Drinking Water Hotline

Call **1-800-426-4791** for information about lead in drinking water.

Consumer Product Safety Commission (CPSC) Hotline

To request information on lead in consumer products, or to report an unsafe consumer product or a product-related injury call **1-800-638-2772**, or visit CPSC's Web site at: www.cpsc.gov.



Health and Environmental Agencies

Some cities, states and tribes have their own rules for lead-based paint activities. Check with your local agency to see which laws apply to you. Most agencies can also provide information on finding a lead abatement firm in your area, and on possible sources of financial aid for reducing lead hazards. Receive up-to-date address and phone information for your local contacts on the Internet at www.epa.gov/lead or contact the National Lead Information Center at **1-800-424-LEAD**.

For the hearing impaired, call the federal Information Relay Service at **1-800-877-8339** to access any of the phone numbers in this brochure.

EPA Regional Offices

Your Regional EPA Office can provide further information regarding regulations and lead protection programs.

EPA Regional Offices

Region 1 (Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont)

Regional Lead Contact
U.S. EPA Region 1
Suite 1100 (CPT)
One Congress Street
Boston, MA 02114-2023
1 (888) 372-7341

Region 2 (New Jersey, New York, Puerto Rico, Virgin Islands)

Regional Lead Contact
U.S. EPA Region 2
2890 Woodbridge Avenue
Building 209, Mail Stop 225
Edison, NJ 08837-3679
(732) 321-6671

Region 3 (Delaware, Maryland, Pennsylvania, Virginia, Washington DC, West Virginia)

Regional Lead Contact
U.S. EPA Region 3 (3WC33)
1650 Arch Street
Philadelphia, PA 19103
(215) 814-5000

Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee)

Regional Lead Contact
U.S. EPA Region 4
61 Forsyth Street, SW
Atlanta, GA 30303
(404) 562-8998

Region 5 (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin)

Regional Lead Contact
U.S. EPA Region 5 (DT-8J)
77 West Jackson Boulevard
Chicago, IL 60604-3666
(312) 886-6003

Region 6 (Arkansas, Louisiana, New Mexico, Oklahoma, Texas)

Regional Lead Contact
U.S. EPA Region 6
1445 Ross Avenue, 12th Floor
Dallas, TX 75202-2733
(214) 665-7577

Region 7 (Iowa, Kansas, Missouri, Nebraska)

Regional Lead Contact
U.S. EPA Region 7
(ARTD-RALI)
901 N. 5th Street
Kansas City, KS 66101
(913) 551-7020

Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming)

Regional Lead Contact
U.S. EPA Region 8
999 18th Street, Suite 500
Denver, CO 80202-2466
(303) 312-6021

Region 9 (Arizona, California, Hawaii, Nevada)

Regional Lead Contact
U.S. Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 947-4164

Region 10 (Alaska, Idaho, Oregon, Washington)

Regional Lead Contact
U.S. EPA Region 10
Toxics Section WCM-128
1200 Sixth Avenue
Seattle, WA 98101-1128
(206) 553-1985

CPSC Regional Offices

Your Regional CPSC Office can provide further information regarding regulations and consumer product safety.

Eastern Regional Center

Consumer Product Safety Commission
201 Varick Street, Room 903
New York, NY 10014
(212) 620-4120

Western Regional Center

Consumer Product Safety Commission
1301 Clay Street, Suite 610-N
Oakland, CA 94612
(510) 637-4050

Central Regional Center

Consumer Product Safety Commission
230 South Dearborn Street, Room 2944
Chicago, IL 60604
(312) 353-8260

HUD Lead Office

Please contact HUD's Office of Healthy Homes and Lead Hazard Control for information on lead regulations, outreach efforts, and lead hazard control and research grant programs.

U.S. Department of Housing and Urban Development

Office of Healthy Homes and Lead Hazard Control
451 Seventh Street, SW. P-3206
Washington, DC 20410
(202) 755-1785

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U.S. EPA Washington DC 20460
U.S. CPSC Washington DC 20207
U.S. HUD Washington DC 20410

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Simple Steps To Protect Your Family From Lead Hazards

If you think your home has high levels of lead:

- ◆ Get your young children tested for lead, even if they seem healthy.
- ◆ Wash children's hands, bottles, pacifiers, and toys often.
- ◆ Make sure children eat healthy, low-fat foods.
- ◆ Get your home checked for lead hazards.
- ◆ Regularly clean floors, window sills, and other surfaces.
- ◆ Wipe soil off shoes before entering house.
- ◆ Talk to your landlord about fixing surfaces with peeling or chipping paint.
- ◆ Take precautions to avoid exposure to lead dust when remodeling or renovating (call 1-800-424-LEAD for guidelines).
- ◆ Don't use a belt-sander, propane torch, high temperature heat gun, scraper, or sandpaper on painted surfaces that may contain lead.
- ◆ Don't try to remove lead-based paint yourself.

PROTECTING YOUR HOME FROM MOLD

JUNE 2002

Mold growth problems can adversely affect many homeowners in Texas. Homeowners who act quickly and appropriately can prevent or correct conditions that may cause mold growth. The Texas Department of Health (TDH) and Texas Department of Insurance (TDI) prepared this publication to help you understand the concerns related to mold growth and to provide some effective steps you can take to help prevent mold growth. The following information will help protect your investment in your home and may prevent the possibility of health risks due to mold exposure.

If you are a renter, you should contact your landlord or property manager immediately when you have a maintenance need related to water damage.

WHAT ARE MOLDS?

Molds are microscopic organisms commonly found both indoors and outdoors. Molds, along with mushrooms and yeast, are known scientifically as fungi. Their purpose in nature is to break down dead material and recycle nutrients in the environment. For molds to grow and reproduce, they need a food source - any organic material, such as leaves, wood, paper, or dirt - and moisture. Since molds grow by "eating" the organic material, they gradually destroy whatever they are feeding on. Mold growth on surfaces can often be seen as a colored spot, frequently green, gray, brown, black or white. It commonly appears as a powdery, fuzzy, or hair-like material. Actively growing molds typically produce odors, sometimes described as earthy or moldy, or like mildew, old dirty socks, or ammonia. Molds release thousands of microscopic spores, which are lightweight, easily airborne and carried by air currents to surrounding areas. The spores must have both food and moisture to actually start growing, similar to plant seeds.

WHAT DO I DO IF A LEAK OCCURS?

Whether or not the water damage may be covered by your insurance policy, it is important to act quickly to prevent further damage to your home.

- Immediately stop the source of leak or flooding.
- Remove excess water with mops or a wet vacuum. If the damage is significant, consider contacting a water extraction company for immediate action.
- Whenever possible, move wet items to a secure, dry and well-ventilated area or outside to expedite drying.
- Protect repairable and undamaged items from further damage.
- Move rugs and pull up areas of wet carpet as soon as possible.
- Increase circulation in and around wet areas by opening closet and cabinet doors, moving furniture away from walls and running fans.
- If necessary, remove wallboard and flooring materials to dry out those areas.
- Don't throw away removed or damaged materials until instructed by your insurance company.
- Dry any damp or wet building materials and furnishings within 24-48 hours.
- Keep all receipts, photos and other relevant documents.
- Contact your insurance company, if applicable.

NOTE: The sooner the affected areas dry out and the source of the leak is repaired, the better your chances of minimizing damage to your property. If the water cannot be removed and the area dried promptly and efficiently, consider contacting a water extraction company for immediate action.

RESOURCES

For additional information, consult the mold and/or indoor air quality resources at the following:

Texas Department of Health
www.tdh.state.tx.us/beh/iaq/
1-800-572-5548

U.S. Environmental Protection Agency
www.epa.gov/iaq/
1-800-438-4318

Texas Department of Insurance
www.tdi.state.tx.us/commish/mold.html
1-800-252-3439

WHY ARE MOLDS A CONCERN?

Damage to the Home

It is common to find mold spores in the air inside homes, and on most surfaces including clothes, walls, and furniture. Most of the time mold spores found indoors come from outdoor sources. Routine cleaning of your home and furnishings helps keep these levels low. Cleaning small areas of visible mold, such as mold that may occur around your shower, is necessary to prevent unsanitary conditions.

The level of concern greatly increases when there are large amounts of active mold growth in your home. Large-scale mold problems are most likely to occur when there has been an on-going water leak, a flood, or very high levels of humidity in the home. Indoor mold growth may cause very high levels of airborne mold spores, which, in turn, may cause the spread of mold growth from the original source to other areas of the home where high moisture levels exist. Extensive mold growth can damage your home and belongings, such as carpets, sofas and cabinets. In time, unchecked mold growth can cause damage to the structural elements in your home. While there is no practical way to eliminate all mold and mold spores in the indoor environment, keeping your home clean and dry can prevent extensive mold growth and its related damage.

Health Effects

The vast majority of people are exposed to small amounts of mold or their spores on a daily basis without evident harm. However, mold growing inside a home is an unsanitary condition that may present potential health risks to occupants. Therefore, it is always best to identify and correct high moisture conditions quickly before mold grows and possible health problems develop.

Potential health effects produced by molds may include allergic, irritating, or toxigenic effects, and rarely, infection. Allergic reactions are generally the most common health effect. Typical symptoms (alone or in combination) reported by people living in moldy homes include:

- respiratory problems, such as wheezing, difficulty breathing, and shortness of breath
- sneezing and/or nasal congestion
- eye irritation (itching, burning, watery, or reddened eyes)
- coughing or throat irritation
- skin rashes or irritation
- headaches
- fatigue

The potential health effects depend on the amounts and types of mold present, the length and frequency of exposure, and the sensitivity and health condition of exposed individuals. While many people seldom experience ill effects from mold exposures, some may develop very serious illnesses. Some persons exposed to mold or mold spores may become sensitized and develop allergies to the mold or other health problems. Even "dead" mold (including spores and pieces of mold) may still cause allergy, irritation, or toxigenic reactions. Thus, killing mold without removing the residue may still be a health concern. Complete removal and thorough cleanup of mold is the safest solution.

Individuals at greater risk who may experience more severe symptoms or become ill more rapidly than others include:

- individuals with existing respiratory conditions, such as allergies, asthma, or chemical sensitivities
- individuals with weakened immune systems due to conditions such as HIV infection or cancer treatment
- infants and young children
- the elderly

Anyone with a health problem they believe may be due to mold exposure should consult a medical professional.

Since you cannot remove all food sources for molds, it is important as a homeowner to take sensible precautions to prevent moisture from creating a breeding ground for mold.

MOISTURE CONTROL

- Maintain levels of humidity below 60% (preferably between 30% and 50%) by
 - venting bathrooms, dryers and other moisture-generating sources to the outside
 - avoiding blockage of air conditioning vents
 - using air conditioners and de-humidifiers
 - increasing ventilation by installing additional crawlspace and attic vents, opening windows or installing an air-to-air heat exchanger
 - using exhaust fans when cooking, dishwashing and cleaning
 - avoiding the use of unvented heaters or high heat in confined areas
 - setting the air conditioning thermostat to "auto" to prevent circulation of humid air.
- Add insulation to reduce the potential for condensation on cold surfaces (windows, piping, exterior walls, roof or floors).
- Consider using moisture sensors that sound an audible alarm when a leak occurs.

OTHER PRECAUTIONS

- **Water Valve** - Make sure everyone in the household knows where the main valve is located and how to turn the water off.
- **Rain Gutters and Downspouts** - Direct rainwater away from your home. Keep gutters clear and make sure downspouts are long enough to effectively carry water away from your foundation. Gutters that are filled with leaves and other debris allow water to back up on the roof, which can result in water damage to eaves and roofing material.
- **Insulate Pipes and Outside Faucets** - Minimize the potential for water damage from frozen, broken pipes by insulating supply lines (in attic, crawlspace and exterior walls), protecting exposed outdoor faucets, sealing gaps in exterior walls and maintaining adequate heat in your home.
- **Sump Pump** - The sump pump is the first line of defense in preventing water seepage into basements. Periodically check the sump and remove any debris that could clog the pump. Consider installing a battery-powered backup to protect your basement during power outages.
- **Don't block weep holes** - Weep holes are openings at the foundation level of a brick wall that allow moisture to escape from behind the wall. Do not close or block these openings.
- **Monitor Utility Bills** - An abnormally high water bill could signal a water leak.
- **Before You Travel** - Turn the water off at the main valve or at major appliances. While you are away, consider leaving a house key and contact information with a neighbor or trusted friend and ask the person to check the inside and outside of your home periodically while you are away.

PREVENTION

- Purchase paint with EPA approved mold inhibitors
- Clean bathrooms often with mold killing products and keep surfaces dry
- Do not carpet bathrooms, basements, kitchens or other areas prone to collect moisture
- Repair damages that could lead to water intrusion promptly and properly
- Ensure that the home has adequate ventilation, including exhaust fans in the kitchen and bathrooms

INSPECTION

Inspect your home regularly for the indications and sources of indoor moisture. Establish a maintenance schedule to check the following sources of water leaks on a regular basis. Contact a maintenance or service company with any questions or concerns.

- **Hot Water Heaters** - Over time, these appliances may rust or develop cracks, and the resulting leaks can be very costly. Check your water heater for rust and deterioration every year. Check the drain pan for water and ensure that the drain line for the overflow pan is not clogged. Drain and clean the water heater as recommended by the manufacturer.
- **A/C Drain Lines** - Damage can occur when the line that drains condensation from the evaporator coils becomes clogged and water overflows from the drip pan. To prevent this, periodically check the drip pan for water and consider an annual inspection or service call to reduce the buildup of algae and mold in the drain line.
- **Appliance Hoses** - Broken hoses are among the most common causes of water damage. Regularly inspect hoses and hose fittings on washing machines, icemakers and dishwashers for kinks, cracks, bulges or evidence of deterioration. Replace standard rubber washing machine hoses every two to five years, or more frequently if they are showing signs of water. Consider using steel-reinforced hoses for longer life.
- **Showers, Tubs, Sinks and Toilets** - Water that leaks from around bathtubs, showers, sinks and toilets can cause extensive damage because the leak is often hidden from view. To prevent leaks, make sure you have a continuous watertight seal of caulk around the edges of sinks, toilets, tubs and shower stalls. Cracks or mold on the caulk or on the grout at tiles on walls or shower floors may indicate that you do not have a watertight seal. Remove all caulk or grout, clean and dry the surface thoroughly, and apply fresh caulk. Do not apply new caulk or grout on top of the old materials.
- **Visible Piping** - Routinely check piping under cabinets and sinks for leaks, rust and evidence of deterioration.
- **Waste/Garbage Disposal System** - Routinely check for cracking or other sources of leaks in the waste disposal system.
- **Caulking around Windows, Doors, Penetrations and Cracks** - Windows and doors should have a continuous bead of caulk sealing them to the exterior surface of the home. Penetrations of the exterior walls by pipes, electrical conduit, phone or cable lines, and exhaust ducts should also be caulked. Cracks or mold on the caulk may indicate that you do not have a watertight seal. Remove all caulk, clean and dry the surface thoroughly, and apply fresh caulk. Do not apply new caulk on top of the old caulk.
- **Attic and Ceilings** - Routinely check for wet insulation and water stains.
- **Wallpaper** - Routinely check for bubbling and/or peeling, as well as pink or black stains.
- **Roofs** - Keep roofs free of debris that can damage roofing material and allow water to seep in. Trim tree branches to prevent them from rubbing and damaging the roof. Promptly repair missing or damaged shingles. Properly seal any cracks around chimneys, skylights and vents. Check metal flashing for holes, cracks or other damage. Replace flashing or use silicon caulk to seal any openings.
- **Landscape** - Yards should slope away from the house to prevent puddling near the foundation or under pier and beam houses.
- **Sprinklers and Irrigation System** - Do not allow sprinklers or sprinkler heads to soak the exterior of the home.
- **Check for evidence of water stains or odors, particularly after rains, on areas that could get wet.**

POTENTIAL SIGNS OF MOLD GROWTH

- Unexplained discoloration on any surface
- Musty odor
- Dark spots on or around vents
- Water stains anywhere
- Peeling or curling of vinyl floors or wallpaper



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