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The ABC's of Agency: Understanding Real Estate Brokerage Relationships in Georgia

Georgia REALTORS®

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Real estate brokers are licensed professionals trained to help consumers buy, sell, or lease real property. They often perform their duties through affiliated licensees who are commonly referred to as real estate agents. Except where the context might indicate otherwise, in this brochure the term "broker" shall include broker's affiliated licensees. The business relationship between real estate brokers and consumers can take many forms, each of which is called a brokerage relationship. This brochure describes the types of brokerage relationships most commonly offered by real estate brokers. Hopefully, the brochure will make it easier for consumers to make informed choices on how best to work with a real estate broker. It should be noted that real estate brokers are not required to offer all of the brokerage relationships described in this brochure. Instead, each real estate broker is free to decide which of these relationships he or she will offer.

Real Estate Brokerage Generally. As a general rule, only licensed real estate brokers can be paid a fee to help consumers buy, sell, or lease property. Many brokers have licensed real estate salespersons, commonly known as real estate agents, who act on behalf of the broker in helping consumers buy, sell, or lease property. While real estate agents can be employees of the real estate broker, most act as independent contractors. Real estate brokers often incorporate or set themselves up as limited liability companies or partnerships. All brokerage firms, however, are required to have a qualifying broker. In the majority of real estate transactions, the consumer interacts only with his or her real estate agent and not the real estate broker. The real estate broker in those instances works behind the scenes to solve problems and support, supervise and assist his or her agents.

Clients vs. Customer. Customer in Brokerage Relationships. All brokerage relationships fall into one of two broad categories: (a) broker-client relationships; and (b) broker-customer relationships. In a broker-client relationship, the real estate broker is representing the client and is acting as his or her legal agent in buying, selling, or leasing property. In Georgia, a broker-client relationship can only be formed by the parties entering into a written agreement. The agreement must explain, among other things, how the broker will be paid, the duty of the broker to keep client confidences, and the types of client or agency relationships offered by the broker.

The other type of brokerage relationship is known as a broker-customer relationship. With this type of relationship, the broker is not representing the customer in a legal or agency capacity. However, the broker can still work with the customer and help him or her by performing what are known as ministerial acts. These include, for example, identifying property for sale or lease, providing pre-printed real estate form contracts, preparing real estate contracts at the direction of the customer, and locating lenders, inspectors, and closing attorneys on behalf of the customer. The different types of brokerage relationships within each of these categories are discussed below.

Broker-Client Relationships:

(a) Seller Agency/Landlord Agency: Seller agency occurs when the real estate broker is representing the seller in selling his or her property. This type of brokerage relationship is created by the seller and the broker entering into a written contract known as a seller brokerage engagement agreement – also sometimes known as a listing agreement. The seller brokerage engagement agreement gives the broker, commonly referred to as the seller's broker the right to market the property for sale at a specific price and for a defined period of time. If the broker is successful in finding a buyer ready, willing, and able to purchase the property, the broker would normally be paid a fee or commission upon the closing of the transaction. This fee or commission is often shared with other real estate brokers, under what are known as cooperative brokerage agreements, if they or their agents find the buyer. Seller agency is also sometimes called listing agency. Landlord agency is different from seller agency in that the Manager or listing broker is assisting the property owner in leasing and/or managing rather than selling property.

(b) Buyer Agency/Tenant Agency: Buyer agency occurs when the real estate broker represents the buyer in locating and assisting the buyer in negotiating for the purchase of property suitable to the buyer. A buyer agency is created when the buyer enters into an agreement commonly known as a buyer brokerage engagement agreement. A real estate broker can be compensated by one party yet represent another party. Therefore, in some buyer brokerage engagement agreements, the fee or commission received by the buyer's broker is actually a portion of the fee or commission paid by the seller to the seller's broker. In these situations, the seller also agrees that the seller's broker will share the commission or fee with any buyer's broker who finds a buyer ready, willing and able to purchase the property. With some buyer brokerage engagement agreements, the buyer pays a fee or commission directly to his or her broker. Buyer agency is sometimes referred to as buyer brokerage. Tenant agency is different from buyer agency in that the broker is representing a consumer who is seeking to lease rather than purchase property.

(c) Designated Agency: In some real estate transactions, the real estate agent representing the buyer and the real estate agent representing the seller both work for the same broker or brokerage firm. In such a transaction, the broker may allow each agent to exclusively represent their respective clients. This type of brokerage relationship is known as designated agency. In a designated agency transaction, the designated agent for the buyer owes the same duties to the buyer as if the agent was acting only as a buyer's agent. Similarly, the designated agent for the seller owes the same duties to the seller as if the agent was acting only as the seller's agent. With designated agency, each designated agent is prohibited from disclosing to anyone other than his or her broker any information requested to be kept confidential by the client unless the information is otherwise required to be disclosed by law. Therefore, designated agents may not disclose such confidential information to other agents in the company. The broker is also prohibited from revealing any confidential information he or she has received from one designated agent to the other designated agent, unless the information is otherwise required to be disclosed by law. Confidential information is defined as any information that could harm the client's negotiating position which information the client has not consented to be disclosed. In Georgia, designated agency is defined by state statute not to be dual agency.

(d) Dual Agency: Georgia law allows both parties to agree to have one agent or broker represent them in a real estate transaction at the same time. In other words, the agent or broker has a client relationship with all parties to the transaction without acting in a designated agency capacity. In these situations, neither party is exclusively represented by a designated real estate agent. This type of brokerage relationship is called "dual agency".

Georgia law allows real estate brokers to act as dual agents if they first get the written consent of both parties. The written consent must contain the following: (1) a description of the types of transactions in which the licensee will serve as a dual agent; (2) a statement that as a dual agent, the licensee represents two clients whose interests could be different or even adverse; (3) a statement that the dual agent will disclose all adverse material facts regarding the transaction known to the dual agent to all parties to the transaction except for information that is made confidential by request of another client and that is not allowed or required by law to be disclosed; (4) a statement that the licensee will disclose to each client in the transaction the nature of any material relationship the licensee or his or her broker have with other clients in the transaction other than incidental to the transaction; (5) a statement that the client does not have to consent to the dual agency; and (6) a statement that the client's consent has been given voluntarily and that the client has read and understood the brokerage engagement agreement. This special consent is required because of the potential for conflicts of interest in dual agency transactions.

(e) Subagency: Subagency occurs when one real estate broker is appointed by another real estate broker as a subagent to assist the broker in performing its duties. In a typical Subagency transaction, a seller's broker practicing Subagency might appoint the broker working with the buyer as his or her subagent. The broker acting as the subagent would work with the buyer but would represent the seller. The buyer then would be unrepresented in the transaction and both brokers (and their affiliated licensees) would be representing the seller. Subagency relationships between real estate brokers in Georgia, while once the norm, are much less common today.

Broker-Customer Relationships:

(a) Transaction Brokerage: A transaction brokerage relationship is one in which a real estate broker or brokers assists both parties in a real estate transaction but does not enter into a client relationship with, nor represents, either party. In a transaction brokerage relationship, the broker treats both parties as customers and can only perform ministerial acts for either party, including the following: (1) identifying property; (2) providing real estate statistics and information of property; (3) providing preprinted real estate form contracts; (4) acting as a scribe in the preparation of form contracts; (5) locating relevant professionals, such as architects, engineers, surveyors, inspectors, lenders, insurance agents, and attorneys; and (6) identifying facilities such as schools, shopping centers, and places of worship.

(b) Brokers May Help Parties Other Than Their Clients: Brokers who represent one party in a real estate transaction as a client can still help the other party in the transaction by performing ministerial duties for the other party (of the type described under transaction brokerage section). When a real estate broker works with a party as a customer or client, the broker may not knowingly give the party false information.

Always Choose a REALTOR®. This brochure has been prepared as a public service by the Georgia Association of REALTORS®. REALTOR® is a registered collective membership mark which may be used only by real estate professionals who are members of the National Association of REALTORS® and subscribe to its strict Code of Ethics.

Protect Your Family From Lead in Your Home

United States Environmental Protection Agency

United States Consumer Product Safety Commission

United States Department of Housing and Urban Development

March 2021

Are You Planning to Buy or Rent a Home Built Before 1978?

Did you know that many homes built before 1978 have **lead-based paint**? Lead from paint, chips, and dust can pose serious health hazards.

Read this entire brochure to learn:

- How lead gets into the body
- How lead affects health
- What you can do to protect your family
- Where to go for more information

Before renting or buying a pre-1978 home or apartment, federal law requires:

- Sellers must disclose known information on lead-based paint or lead-based paint hazards before selling a house.
- Real estate sales contracts must include a specific warning statement about lead-based paint. Buyers have up to 10 days to check for lead.
- Landlords must disclose known information on lead-based paint or lead-based paint hazards before leases take effect. Leases must include a specific warning statement about lead-based paint.

If undertaking renovations, repairs, or painting (RRP) projects in your pre-1978 home or apartment:

- Read EPA's pamphlet, *The Lead-Safe Certified Guide to Renovate Right*, to learn about the lead-safe work practices that contractors are required to follow when working in your home (see page 12).

Simple Steps to Protect Your Family from Lead Hazards

If you think your home has lead-based paint:

- Don't try to remove lead-based paint yourself.
- Always keep painted surfaces in good condition to minimize deterioration.
- Get your home checked for lead hazards. Find a certified inspector or risk assessor at epa.gov/lead.
- Talk to your landlord about fixing surfaces with peeling or chipping paint.
- Regularly clean floors, window sills, and other surfaces.
- Take precautions to avoid exposure to lead dust when remodeling.
- When renovating, repairing, or painting, hire only EPA- or state-approved Lead-Safe certified renovation firms.
- Before buying, renting, or renovating your home, have it checked for lead-based paint.
- Consult your health care provider about testing your children for lead. Your pediatrician can check for lead with a simple blood test.
- Wash children's hands, bottles, pacifiers, and toys often.
- Make sure children eat healthy, low-fat foods high in iron, calcium, and vitamin C.
- Remove shoes or wipe soil off shoes before entering your house.

Lead Gets into the Body in Many Ways

Adults and children can get lead into their bodies if they:

- Breathe in lead dust (especially during activities such as renovations, repairs, or painting that disturb painted surfaces).
- Swallow lead dust that has settled on food, food preparation surfaces, and other places.
- Eat paint chips or soil that contains lead.

Lead is especially dangerous to children under the age of 6.

- At this age, children's brains and nervous systems 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.

Women of childbearing age should know that lead is dangerous to a developing fetus.

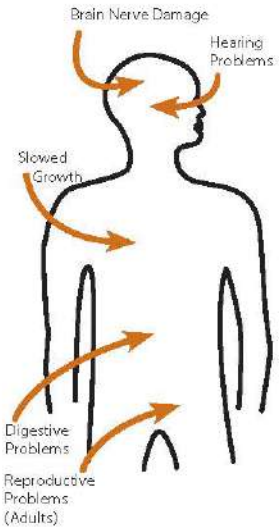
- Women with a high lead level in their system before or during pregnancy risk exposing the fetus to lead through the placenta during fetal development.

Health Effects of Lead

Lead affects the body in many ways. It is important to know that even exposure to low levels of lead can severely harm children.

In children, exposure to 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 amounts 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, exposure to lead can cause:

- Harm to a developing fetus
- Increased chance of high blood pressure during pregnancy
- Fertility problems (in men and women)
- High blood pressure
- Digestive problems
- Nerve disorders
- Memory and concentration problems
- Muscle and joint pain

Check Your Family for Lead

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

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 lead. Blood lead 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.

Where Lead-Based Paint Is Found

In general, the older your home or childcare facility, the more likely it has lead-based paint.[1]

Many homes, including private, federally-assisted, federally-owned housing, and childcare facilities built before 1978 have lead-based paint. In 1978, the federal government banned consumer uses of lead-containing paint.[2]

Learn how to determine if paint is lead-based paint on page 7.

Lead can be found:

- In homes and childcare facilities in the city, country, or suburbs,
- In private and public single-family homes and apartments,
- On surfaces inside and outside of the house, and
- 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.)

Learn more about where lead is found at epa.gov/lead.

[1] "Lead-based paint" is currently defined by the federal government as paint with lead levels greater than or equal to 1.0 milligram per square centimeter (mg/cm^2), or more than 0.5% by weight.

[2] "Lead-containing paint" is currently defined by the federal government as lead in new dried paint in excess of 90 parts per million (ppm) by weight.

Identifying Lead-Based Paint and Lead-Based Paint Hazards

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

- On windows and window sills
- Doors and door frames
- Stairs, railings, banisters, and porches

Lead-based paint is usually not a hazard if it is in good condition and if it is not on an impact or friction surface like a window.

Lead dust can form when lead-based paint is scraped, sanded, or heated. Lead dust also forms when painted surfaces containing lead bump or rub together. Lead paint chips and dust can get on surfaces and objects that people touch. Settled lead dust can reenter the air when the home is vacuumed or swept, or when people walk through it. EPA currently defines the following levels of lead in dust as hazardous:

- 10 micrograms per square foot ($\mu g/ft^2$) and higher for floors, including carpeted floors
- 100 $\mu g/ft^2$ 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. EPA currently defines the following levels of lead in soil as hazardous:

- 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

Remember, lead from paint chips—which you can see—and lead dust—which you may not be able to see—both can be hazards.

The only way to find out if paint, dust, or soil lead hazards exist is to test for them. The next page describes how to do this.

Checking Your Home for Lead

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

- A lead-based paint **inspection** tells you if your home has lead-based paint and where it is located. It won't tell you whether your home currently has lead hazards. A trained and certified testing professional, called a lead-based paint inspector, will conduct a paint inspection using methods, such as:
  - Portable x-ray fluorescence (XRF) machine
  - Lab tests of paint samples

- 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 trained and certified testing professional, called a risk assessor, will:
  - Sample paint that is deteriorated on doors, windows, floors, stairs, and walls
  - Sample dust near painted surfaces and sample bare soil in the yard
  - Get lab tests of paint, dust, and soil samples
- A combination inspection and risk assessment tells you if your home has any lead-based paint and if your home has any lead hazards, and where both are located.

Be sure to read the report provided to you after your inspection or risk assessment is completed, and ask questions about anything you do not understand.

Checking Your Home for Lead, continued

In preparing for renovation, repair, or painting work in a pre-1978 home, Lead-Safe Certified renovators (see page 12) may:

- Take paint chip samples to determine if lead-based paint is present in the area planned for renovation and send them to an EPA-recognized lead lab for analysis. In housing receiving federal assistance, the person collecting these samples must be a certified lead-based paint inspector or risk assessor
- Use EPA-recognized tests kits to determine if lead-based paint is absent (but not in housing receiving federal assistance)
- Presume that lead-based paint is present and use lead-safe work practices

There are state and federal programs in place to ensure that testing is done safely, reliably, and effectively. Contact your state or local agency for more information, visit epa.gov/lead, or call **1-800-424-LEAD (5323)** for a list of contacts in your area.[3]

[3] Hearing- or speech-challenged individuals may access this number through TTY by calling the Federal Relay Service at 1-800-877-8339.

What You Can Do Now to Protect Your Family

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

- If you rent, notify your landlord of peeling or chipping paint.
- Keep painted surfaces clean and free of dust. Clean floors, window frames, window sills, and other surfaces weekly. Use a mop or sponge with warm water and a general all-purpose cleaner. (Remember: never mix ammonia and bleach products together because they can form a dangerous gas.)
- Carefully clean up paint chips immediately without creating dust.
- Thoroughly rinse sponges and mop heads often during cleaning of dirty or dusty areas, and again afterward.
- Wash your hands and your 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, or eating soil.
- When renovating, repairing, or painting, hire only EPA- or state-approved Lead-Safe Certified renovation firms (see page 12).
- 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

Disturbing lead-based paint or removing lead improperly can increase the hazard to your family by spreading even more lead dust around the house.

- In addition to day-to-day cleaning and good nutrition, you can **temporarily** reduce lead-based paint hazards by taking actions, such as repairing damaged painted surfaces and planting grass to cover lead-contaminated soil. These actions are not permanent solutions and will need ongoing attention.
- You can minimize exposure to lead when renovating, repairing, or painting by hiring an EPA- or state-certified renovator who is trained in the use of lead-safe work practices. If you are a do-it-yourselfer, learn how to use lead–safe work practices in your home.
- To remove lead hazards permanently, 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 control.

Always use a certified contractor who is trained to address lead hazards safely.

- Hire a Lead-Safe Certified firm (see page 12) to perform renovation, repair, or painting (RRP) projects that disturb painted surfaces.
- To correct lead hazards permanently, hire a certified lead abatement contractor. This will ensure your contractor knows how to 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.

Reducing Lead Hazards, continued

If your home has had lead abatement work done or if the housing is receiving federal assistance, once the work is completed, dust cleanup activities must be conducted until clearance testing indicates that lead dust levels are below the following levels:

- 10 micrograms per square foot ($\mu g/ft^2$) for floors, including carpeted floors
- 100 $\mu g/ft^2$ for interior windows sills
- 400 $\mu g/ft^2$ for window troughs

Abatements are designed to permanently eliminate lead-based paint hazards. However, lead dust can be reintroduced into an abated area.

- Use a HEPA vacuum on all furniture and other items returned to the area, to reduce the potential for reintroducing lead dust.
- Regularly clean floors, window sills, troughs, and other hard surfaces with a damp cloth or sponge and a general all-purpose cleaner.

Please see page 9 for more information on steps you can take to protect your home after the abatement. For help in locating certified lead abatement professionals in your area, call your state or local agency (see pages 15 and 16), epa.gov/lead, or call 1-800-424-LEAD.

Renovating, Repairing or Painting a Home with Lead-Based Paint

If you hire a contractor to conduct renovation, repair, or painting (RRP) projects in your pre-1978 home or childcare facility (such as pre-school and kindergarten), your contractor must:

- Be a Lead-Safe Certified firm approved by EPA or an EPA-authorized state program
- Use qualified trained individuals (Lead-Safe Certified renovators) who follow specific lead-safe work practices to prevent lead contamination
- Provide a copy of EPA's lead hazard information document, *The Lead-Safe Certified Guide to Renovate Right*

RRP contractors working in pre-1978 homes and childcare facilities must follow lead-safe work practices that:

- **Contain the work area.** The area must be contained so that dust and debris do not escape from the work area. Warning signs must be put up, and plastic or other impermeable material and tape must be used.
- **Avoid renovation methods that generate large amounts of lead-contaminated dust.** Some methods generate so much lead-contaminated dust that their use is prohibited. They are:
  - Open-flame burning or torching
  - Sanding, grinding, planing, needle gunning, or blasting with power tools and equipment not equipped with a shroud and HEPA vacuum attachment
  - Using a heat gun at temperatures greater than 1100°F
- **Clean up thoroughly.** The work area should be cleaned up daily. When all the work is done, the area must be cleaned up using special cleaning methods.
- **Dispose of waste properly.** Collect and seal waste in a heavy duty bag or sheeting. When transported, ensure that waste is contained to prevent release of dust and debris.

To learn more about EPA's requirements for RRP projects, visit epa.gov/getleadsafe, or read *The Lead-Safe Certified Guide to Renovate Right.*

Other Sources of Lead

Lead in Drinking Water

The most common sources of lead in drinking water are lead pipes, faucets, and fixtures.

Lead pipes are more likely to be found in older cities and homes built before 1986.

You can't smell or taste lead in drinking water.

To find out for certain if you have lead in drinking water, have your water tested.

Remember older homes with a private well can also have plumbing materials that contain lead.

Important Steps You Can Take to Reduce Lead in Drinking Water

- Use only cold water for drinking, cooking and making baby formula. Remember, boiling water does not remove lead from water.
- Before drinking, flush your home's pipes by running the tap, taking a shower, doing laundry, or doing a load of dishes.
- Regularly clean your faucet's screen (also known as an aerator).
- If you use a filter certified to remove lead, don't forget to read the directions to learn when to change the cartridge. Using a filter after it has expired can make it less effective at removing lead.

Contact your water company to determine if the pipe that connects your home to the water main (called a service line) is made from lead. Your area's water company can also provide information about the lead levels in your system's drinking water.

For more information about lead in drinking water, please contact EPA's Safe Drinking Water Hotline at 1-800-426-4791. If you have other questions about lead poisoning prevention, call 1-800 424-LEAD.*

Call your local health department or water company to find out about testing your water, or visit epa.gov/safewater for EPA's lead in drinking water information. Some states or utilities offer programs to pay for water testing for residents. Contact your state or local water company to learn more.

* Hearing- or speech-challenged individuals may access this number through TTY by calling the Federal Relay Service at 1-800-877-8339.

Other Sources of Lead, continued

- **Lead smelters** or other industries that release lead into the air.
- **Your job.** If you work with lead, you could bring it home on your body or clothes. Shower and change clothes before coming home. Launder your work clothes separately from the rest of your family's clothes.
- **Hobbies** that use lead, such as making pottery or stained glass, or refinishing furniture. Call your local health department for information about hobbies that may use lead.
- Old **toys** and **furniture** may have been painted with lead-containing paint. Older toys and other children's products may have parts that contain lead.[4]
- Food and liquids cooked or stored in **lead crystal** or **lead-glazed pottery or porcelain** may contain lead.
- Folk remedies, such as **"greta"** and **"azarcon,"** used to treat an upset stomach.

[4] In 1978, the federal government banned toys, other children's products, and furniture with lead-containing paint. In 2008, the federal government banned lead in most children's products. The federal government currently bans lead in excess of 100 ppm by weight in most children's products.

For More Information

The National Lead Information Center
Learn how to protect children from lead poisoning and get other information about lead hazards on the Web at epa.gov/lead and hud.gov/lead, or call **1-800-424-LEAD (5323).**

EPA's Safe Drinking Water Hotline
For information about lead in drinking water, call **1-800-426-4791**, or visit epa.gov/safewater for information about lead in drinking water.

Consumer Product Safety Commission (CPSC) Hotline
For information on lead in toys and other consumer products, or to report an unsafe consumer product or a product-related injury, call **1-800-638-2772,** or visit CPSC's website at cpsc.gov or saferproducts.gov.

State and Local Health and Environmental Agencies
Some states, tribes, and cities have their own rules related to lead-based paint. 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 state or local contacts on the Web at epa.gov/lead, or contact the National Lead Information Center at **1-800-424-LEAD.**

Hearing- or speech-challenged individuals may access any of the phone numbers in this brochure through TTY by calling the toll-free Federal Relay Service at **1-800-877-8339**.

U. S. Environmental Protection Agency (EPA) Regional Offices

The mission of EPA is to protect human health and the environment. Your Regional EPA Office can provide further information regarding regulations and lead protection programs.

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

Regional Lead Contact
U.S. EPA Region 1
5 Post Office Square, Suite 100, OES 05-4
Boston, MA 02109-3912
(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 205, Mail Stop 225
Edison, NJ 08837-3679
(732) 906-6809

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

Regional Lead Contact
U.S. EPA Region 3
1650 Arch Street
Philadelphia, PA 19103
(215) 814-2088

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

Regional Lead Contact
U.S. EPA Region 4
AFC Tower, 12th Floor, Air, Pesticides & Toxics
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 (LL-17J)
77 West Jackson Boulevard
Chicago, IL 60604-3666
(312) 353-3808

Region 6 (Arkansas, Louisiana, New Mexico, Oklahoma, Texas, and 66 Tribes)

Regional Lead Contact
U.S. EPA Region 6
1445 Ross Avenue, 12th Floor
Dallas, TX 75202-2733
(214) 665-2704

Region 7 (Iowa, Kansas, Missouri, Nebraska)

Regional Lead Contact
U.S. EPA Region 7
11201 Renner Blvd.
Lenexa, KS 66219
(800) 223-0425

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

Regional Lead Contact
U.S. EPA Region 8
1595 Wynkoop St.
Denver, CO 80202
(303) 312-6966

Region 9 (Arizona, California, Hawaii, Nevada)

Regional Lead Contact
U.S. EPA Region 9 (CMD-4-2)
75 Hawthorne Street
San Francisco, CA 94105
(415) 947-4280

Region 10 (Alaska, Idaho, Oregon, Washington)

Regional Lead Contact
U.S. EPA Region 10 (20-C04)
Air and Toxics Enforcement Section
1200 Sixth Avenue, Suite 155
Seattle, WA 98101
(206) 553-1200

Consumer Product Safety Commission (CPSC)

The CPSC protects the public against unreasonable risk of injury from consumer products through education, safety standards activities, and enforcement. Contact CPSC for further information regarding consumer product safety and regulations.

CPSC
4330 East West Highway
Bethesda, MD 20814-4421
1-800-638-2772
cpsc.gov or saferproducts.gov

U. S. Department of Housing and Urban Development (HUD)

HUD's mission is to create strong, sustainable, inclusive communities and quality affordable homes for all. Contact to Office of Lead Hazard Control and Healthy Homes for further information regarding the Lead Safe Housing Rule, which protects families in pre-1978 assisted housing, and for the lead hazard control and research grant programs.

HUD
451 Seventh Street, SW, Room 8236
Washington, DC 20410-3000
(202) 402-7698
hud.gov/lead

U. S. EPA Washington DC 20460
U. S. CPSC Bethesda MD 20814
U. S. HUD Washington DC 20410

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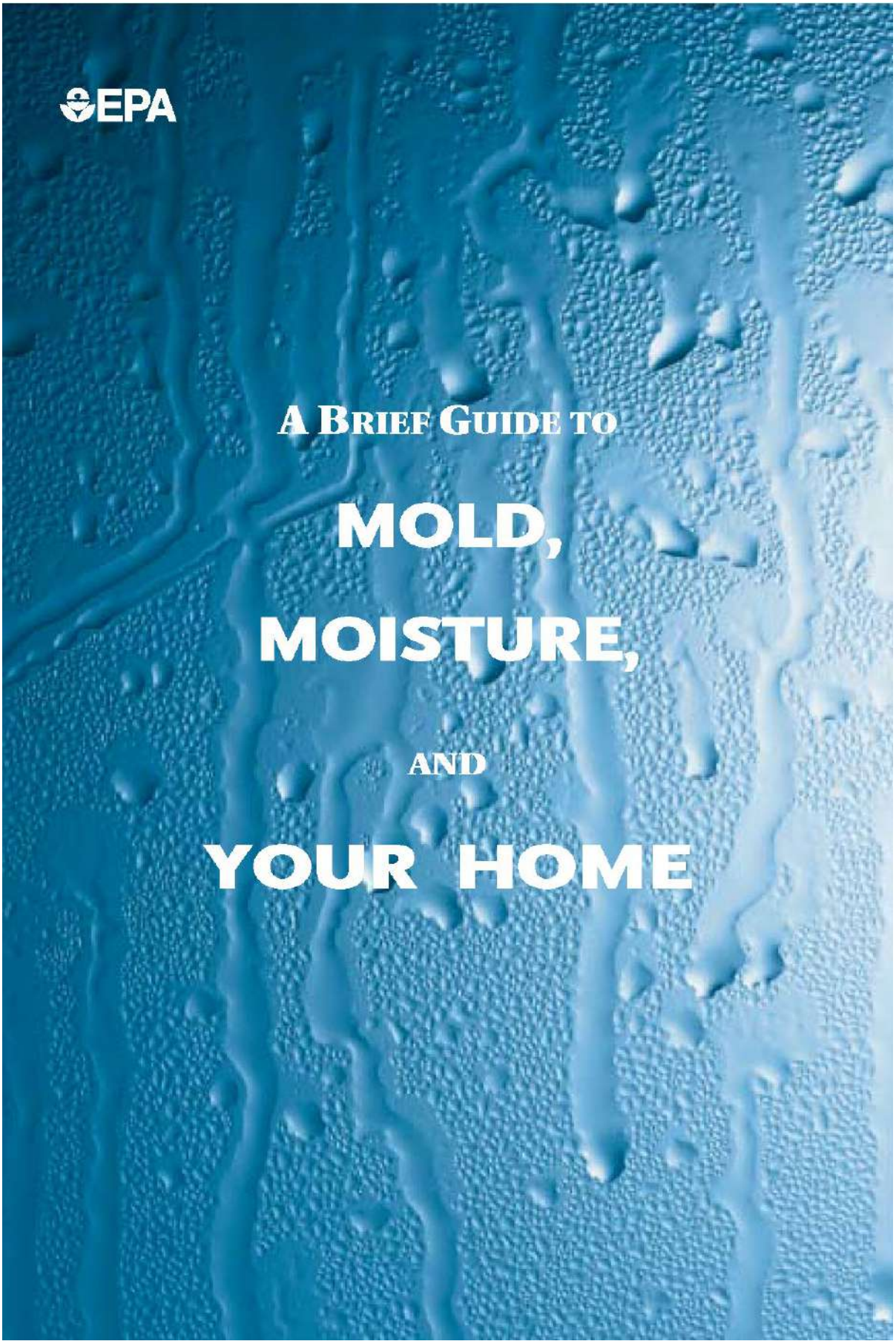
IMPORTANT!

Lead From Paint, Dust, and Soil in and Around Your Home Can Be Dangerous if Not Managed Properly

- Children under 6 years old are most at risk for lead poisoning in your home.
- Lead exposure can harm young children and babies even before they are born.
- Homes, schools, and child care facilities built before 1978 are likely to contain lead-based paint.
- Even children who seem healthy may have dangerous levels of lead in their bodies.
- Disturbing surfaces with lead-based paint or removing lead-based paint improperly can increase the danger to your family.
- People can get lead into their bodies by breathing or swallowing lead dust, or by eating soil or paint chips containing lead.
- People have many options for reducing lead hazards. Generally, lead-based paint that is in good condition is not a hazard (see page 10).



EPA 402-K-02-003

This Guide provides information and guidance for homeowners and renters on how to clean up residential mold problems and how to prevent mold growth.

U.S. Environmental Protection Agency
Office of Air and Radiation
Indoor Environments Division
1200 Pennsylvania Avenue
Mailcode: 6609J
Washington, DC 20460
www.epa.gov/iaq

A Brief Guide to Mold, Moisture, and Your Home

Contents

MOLD BASICS

- **The key to mold control is moisture control.**
- **If mold is a problem in your home, you should clean up the mold promptly *and* fix the water problem.**
- **It is important to dry water-damaged areas and items within 24-48 hours to prevent mold growth.**

Why is mold growing in my home?

Molds are part of the natural environment. Outdoors, molds play a part in nature by breaking down dead organic matter such as fallen leaves and dead trees, but indoors, mold growth should be avoided. Molds reproduce by means of tiny spores; the spores are invisible to the naked eye and float through outdoor and indoor air. Mold may begin growing indoors when mold spores land on surfaces that are wet. There are many types of mold, and none of them will grow without water or moisture.

Mold growing outdoors on firewood. Molds come in many colors; both white and black molds are shown here.

Can mold cause health problems?

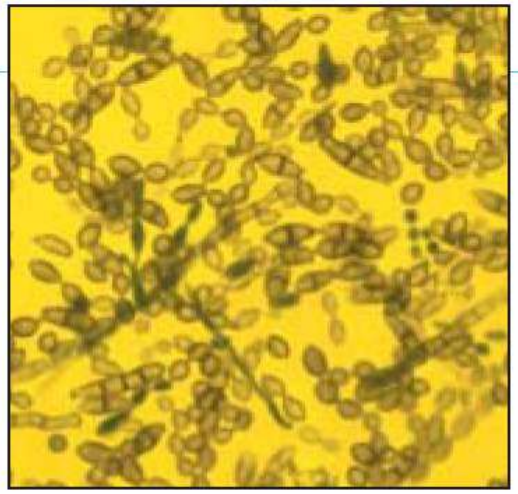
Molds are usually not a problem indoors, unless mold spores land on a wet or damp spot and begin growing. Molds have the potential to cause health problems. Molds produce allergens (substances that can cause allergic reactions), irritants, and in some cases, potentially toxic substances (mycotoxins).

Inhaling or touching mold or mold spores may cause allergic reactions in sensitive individuals. Allergic responses include hay fever-type symptoms, such as sneezing, runny nose, red eyes, and skin rash (dermatitis). Allergic reactions to mold are common. They can be immediate or delayed. 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 both mold-

allergic and non-allergic people. Symptoms other than the allergic and irritant types are not commonly reported as a result of inhaling mold.

Research on mold and health effects is ongoing. This brochure provides a brief overview; it does not describe all potential health effects related to mold exposure. For more detailed information consult a health professional. You may also wish to consult your state or local health department.

How do I get rid of mold? It is impossible to get rid of all mold and mold spores indoors; some mold spores will be found floating through the air and in house dust. The mold spores will not grow if moisture is not present. Indoor mold growth can and should be prevented or controlled by controlling moisture indoors. If there is mold growth in your home, you must clean up the mold **and** fix the water problem. If you clean up the mold, but don't fix the water problem, then, most likely, the mold problem will come back.



Magnified mold spores.

Molds can gradually destroy the things they grow on. You can prevent damage to your home and furnishings, save money, and avoid potential health problems by controlling moisture and eliminating mold growth.

MOLD CLEANUP

Leaky window – mold is beginning to rot the wooden frame and windowsill.

If you already have a mold problem – ACT QUICKLY.

Mold damages what it grows on. The longer it grows, the more damage it can cause.

Who should do the cleanup? Who should do the cleanup depends on a number of factors. One consideration is the size of the mold problem. If the moldy area is less than about 10 square feet (less than roughly a 3 ft. by 3 ft. patch), in most cases, you can handle the job yourself, following the guidelines below. However:

- If there has been a lot of water damage, and/or mold growth covers more than 10 square feet, consult the U.S. Environmental Protection Agency (EPA) guide: *Mold Remediation in Schools and Commercial Buildings*. Although focused on schools and commercial

buildings, this document is applicable to other building types. It is available free by calling the EPA Indoor Air Quality Information Clearinghouse at (800) 438-4318, or on the Internet at: www.epa.gov/iaq/molds/mold_remediation.html.

- If you choose to hire a contractor (or other professional service provider) to do the cleanup, make sure the contractor has experience cleaning up mold. Check references and ask the contractor to follow the recommendations in EPA's *Mold Remediation in Schools and Commercial Buildings*, the guidelines of the American Conference of Governmental Industrial Hygenists (ACGIH), or other guidelines from professional or government organizations.

- If you suspect that the heating/ventilation/air conditioning (HVAC) system may be contaminated with mold (it is part of an identified moisture problem, for instance, or there is mold near the intake to the system), consult EPA's guide *Should You Have the Air Ducts in Your Home Cleaned?* before taking further action. Do not run the HVAC system if you know or suspect that it is contaminated with mold - it could spread mold throughout the building. Visit www.epa.gov/iaq/pubs/airduct.html, or call (800) 438-4318 for a free copy.

- If the water and/or mold damage was caused by sewage or other contaminated water, then call in a professional who has experience cleaning and fixing buildings damaged by contaminated water.

- If you have health concerns, consult a health professional before starting cleanup.

MOLD CLEANUP GUIDELINES

Bathroom Tip

Places that are often or always damp can be hard to maintain completely free of mold. If there's some mold in the shower or elsewhere in the bathroom that seems to reappear, increasing the ventilation (running a fan or opening a window) and cleaning more frequently will usually prevent mold from recurring, or at least keep the mold to a minimum.

Tips and techniques The tips and techniques presented in this section will help you clean up your mold problem. Professional cleaners or remediators may use methods not covered in this publication. Please note that mold may cause staining and cosmetic damage. It may not be possible to clean an item so that its original appearance is restored.

- **Fix plumbing leaks and other water problems as soon as possible. Dry all items completely.**
- **Scrub mold off hard surfaces with detergent and water, and dry completely.**

Mold growing on the underside of a plastic lawnchair in an area where rainwater drips through and deposits organic material.

Mold growing on a piece of ceiling tile.

- Absorbent or porous materials, such as ceiling tiles and carpet, may have to be thrown away if they become moldy. Mold can grow on or fill in the empty spaces and crevices of porous materials, so the mold may be difficult or impossible to remove completely.
- Avoid exposing yourself or others to mold (see discussions: **What to Wear When Cleaning Moldy Areas** and **Hidden Mold**.)
- Do not paint or caulk moldy surfaces. Clean up the mold and dry the surfaces before painting. Paint applied over moldy surfaces is likely to peel.
- If you are unsure about how to clean an item, or if the item is expensive or of sentimental value, you may wish to consult a specialist. Specialists in furniture repair, restoration, painting, art restoration and conservation, carpet and rug cleaning, water damage, and fire or water restoration are commonly listed in phone books. Be sure to ask for and check references. Look for specialists who are affiliated with professional organizations.

WHAT TO WEAR WHEN CLEANING MOLDY AREAS

Mold growing on a suitcase stored in a humid basement.

It is important to take precautions to LIMIT YOUR EXPOSURE to mold and mold spores.

- **Avoid breathing in mold or mold spores.** In order to limit your exposure to airborne mold, you may want to wear an N-95 respirator, available at many hardware stores and from companies that advertise on the Internet. (They cost about $12 to $25.) Some N-95 respirators resemble a paper dust mask with a nozzle on the front, others are made primarily of plastic or rubber and have removable cartridges that trap most of the mold spores from entering. In order to be effective, the respirator or mask must fit properly, so carefully follow the instructions supplied with the respirator. Please note that the Occupational Safety and Health Administration (OSHA) requires that respirators fit properly (fit testing) when used in an occupational setting; consult OSHA for more information (800-321-OSHA or osha.gov/).

- **Wear gloves**. Long gloves that extend to the middle of the forearm are recommended. When working with water and a mild detergent, ordinary household rubber gloves may be used. If you are using a disinfectant, a biocide such as chlorine bleach, or a strong cleaning solution, you should select gloves made from natural rubber, neoprene, nitrile, polyurethane, or PVC (see **Cleanup and Biocides**). Avoid touching mold or moldy items with your bare hands.

- **Wear goggles**. Goggles that do not have ventilation holes are recommended. Avoid getting mold or mold spores in your eyes.

Cleaning while wearing N-95 respirator, gloves, and goggles.

How do I know when the remediation or cleanup is finished?

You must have completely fixed the water or moisture problem before the cleanup or remediation can be considered finished.

- You should have completed mold removal. Visible mold and moldy odors should not be present. Please note that mold may cause staining and cosmetic damage.

- You should have revisited the site(s) shortly after cleanup and it should show no signs of water damage or mold growth.

- People should have been able to occupy or re-occupy the area without health complaints or physical symptoms.

- Ultimately, this is a judgment call; there is no easy answer. If you have concerns or questions call the EPA Indoor Air Quality Information Clearinghouse at (800) 438-4318.

MOISTURE AND MOLD PREVENTION AND CONTROL TIPS

MOISTURE Control is the Key to Mold Control

Mold growing on the surface of a unit ventilator.

- When water leaks or spills occur indoors - **ACT QUICKLY**. If wet or damp materials or areas are dried 24-48 hours after a leak or spill happens, in most cases mold will not grow.
- Clean and repair roof gutters regularly.
- Make sure the ground slopes away from the building foundation, so that water does not enter or collect around the foundation.
- Keep air conditioning drip pans clean and the drain lines unobstructed and flowing properly.

Condensation on the inside of a windowpane.

- Keep indoor humidity low. If possible, keep indoor humidity below 60 percent (ideally between 30 and 50 percent) relative humidity. Relative humidity can be measured with a moisture or humidity meter, a small, inexpensive ($10-$50) instrument available at many hardware stores.

- If you see condensation or moisture collecting on windows, walls or pipes - ACT QUICKLY to dry the wet surface and reduce the moisture/water source. Condensation can be a sign of high humidity.

Actions that will help to reduce humidity:

- Vent appliances that produce moisture, such as clothes dryers, stoves, and kerosene heaters to the outside where possible. (Combustion appliances such as stoves and kerosene heaters produce water vapor and will increase the humidity unless vented to the outside.)

- Use air conditioners and/or de-humidifiers when needed.

- Run the bathroom fan or open the window when showering. Use exhaust fans or open windows whenever cooking, running the dishwasher or dishwashing, etc.

Actions that will help prevent condensation:

- Reduce the humidity (see preceeding page).
- Increase ventilation or air movement by opening doors and/or windows, when practical. Use fans as needed.
- Cover cold surfaces, such as cold water pipes, with insulation.
- Increase air temperature.

Mold growing on a wooden headboard in a room with high humidity.

Renters: Report all plumbing leaks and moisture problems immediately to your building owner, manager, or superintendent. In cases where persistent water problems are not addressed, you may want to contact local, state, or federal health or housing authorities.

Rust is an indicator that condensation occurs on this drainpipe. The pipe should be insulated to prevent condensation.

Testing or sampling for mold Is sampling for mold needed? **In most cases, if visible mold growth is present, sampling is unnecessary.** Since no EPA or other federal limits have been set for mold or mold spores, sampling cannot be used to check a building's compliance with federal mold standards. Surface sampling may be useful to determine if an area has been adequately cleaned or remediated. Sampling for mold should be conducted by professionals who have specific experience in designing mold sampling protocols, sampling methods, and interpreting results. Sample analysis should follow analytical methods recommended by the American Industrial Hygiene Association (AIHA), the American Conference of Governmental Industrial Hygienists (ACGIH), or other professional organizations.

HIDDEN MOLD

Mold growing on the back side of wallpaper.

Suspicion of hidden mold You may suspect hidden mold if a building smells moldy, but you cannot see the source, or if you know there has been water damage and residents are reporting health problems. Mold may be hidden in places such as the back side of dry wall, wallpaper, or paneling, the top side of ceiling tiles, the underside of carpets and pads, etc. Other possible locations of hidden mold include areas inside walls around pipes (with leaking or condensing pipes), the surface of walls behind furniture (where condensation forms), inside ductwork, and in roof materials above ceiling tiles (due to roof leaks or insufficient insulation).

Investigating hidden mold problems Investigating hidden mold problems may be difficult and will require caution when the investigation involves disturbing potential sites of mold growth. For example, removal of wallpaper can lead to a massive release of spores if there is mold growing on the underside of the paper. If you believe that you may have a hidden mold problem, consider hiring an experienced professional.

Cleanup and Biocides Biocides are substances that can destroy living organisms. The use of a chemical or biocide that kills organisms such as mold (chlorine bleach, for example) is not recommended as a routine practice during mold cleanup. There may be instances, however, when professional judgment may indicate its use (for example, when immune-compromised individuals are present). In most cases, it is not possible or desirable to sterilize an area; a background level of mold spores will remain - these spores will not grow if the moisture problem has been resolved. If you choose to use disinfectants or biocides, always ventilate the area and exhaust the air to the outdoors. Never mix chlorine bleach solution with other cleaning solutions or detergents that contain ammonia because toxic fumes could be produced.

Please note: Dead mold may still cause allergic reactions in some people, so it is not enough to simply kill the mold, it must also be removed.

Water stain on a basement wall — locate and fix the source of the water promptly.

ADDITIONAL RESOURCES

For more information on mold related issues including mold cleanup and moisture control/condensation/humidity issues, you can call the EPA Indoor Air Quality Information Clearinghouse at

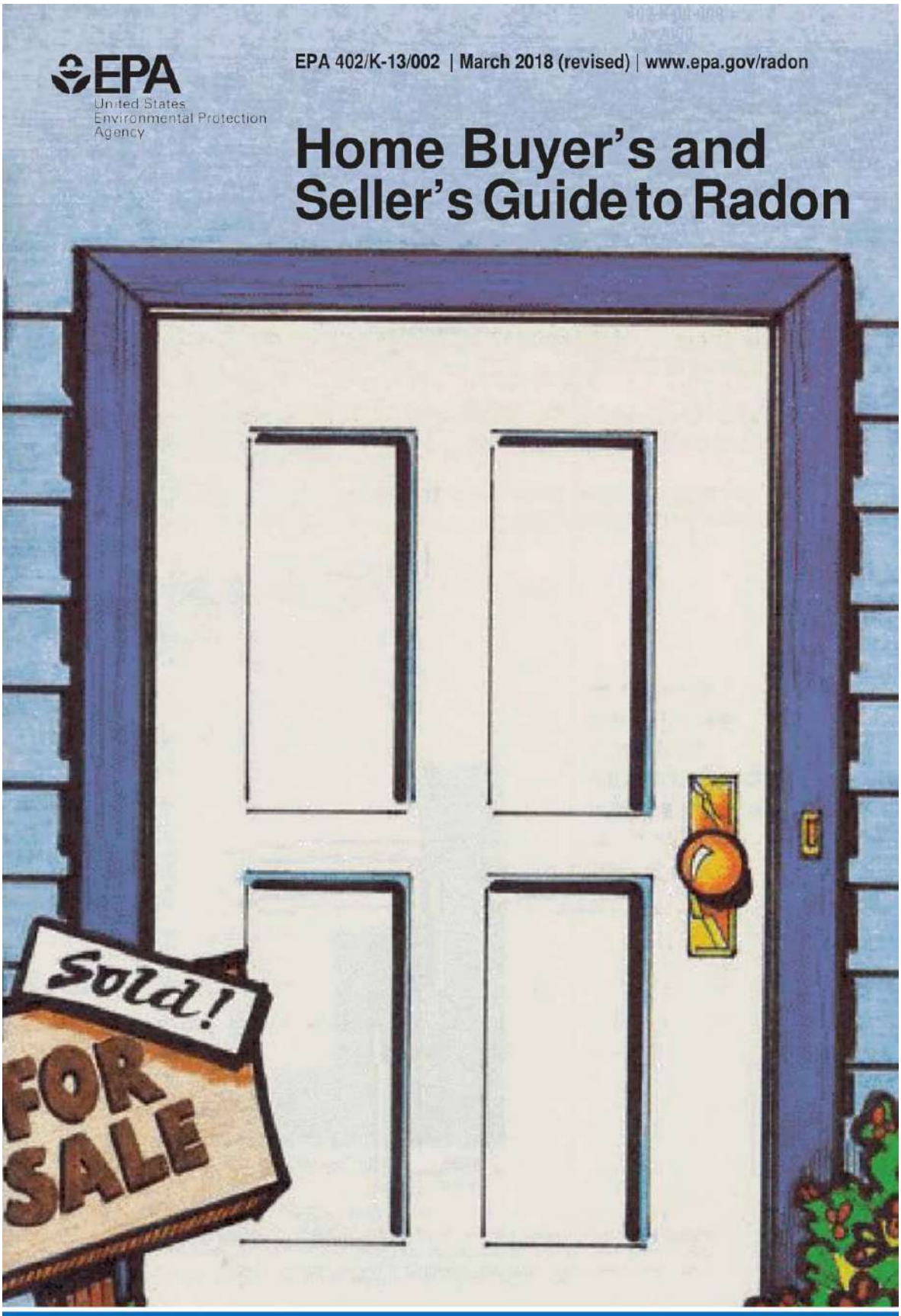
(800) 438-4318.

Or visit:

www.epa.gov/iaq/molds

Mold growing on fallen leaves.

This document is available on the Environmental Protection Agency, Indoor Environments Division website at: www.epa.gov/iaq/molds/moldguide.html



EPA RECOMMENDS:

- If you are buying or selling a home, have it tested for radon.
- For a new home, ask if radon-resistant construction features were used and if the home has been tested.

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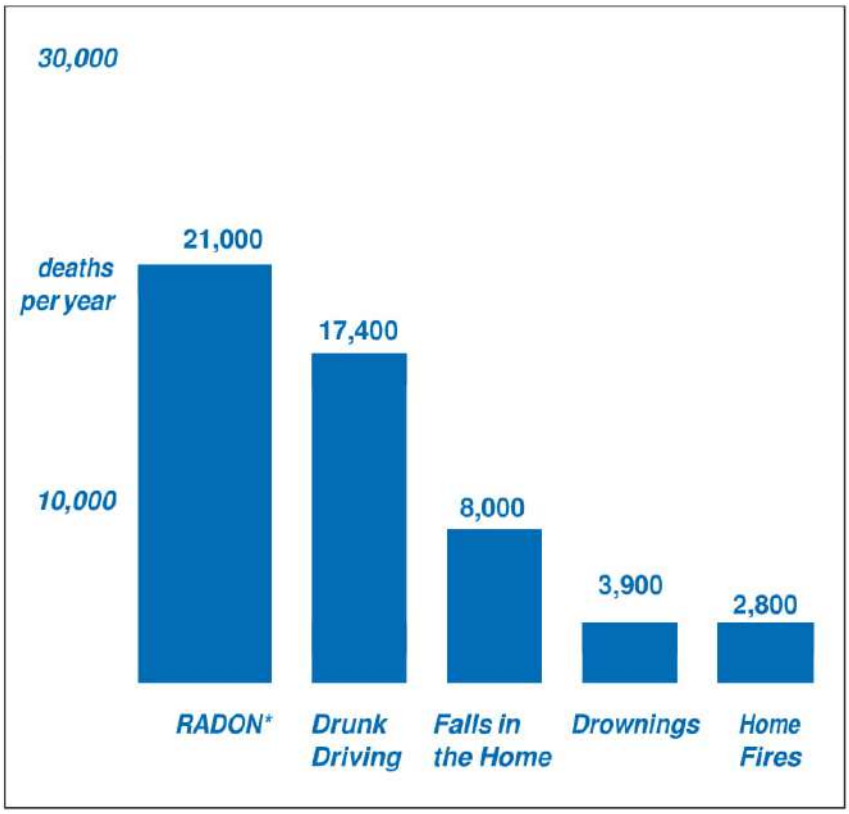
- Fix the home if the radon level is 4 picocuries per liter (pCi/L) or higher.
- Radon levels less than 4 pCi/L still pose a risk and, in many cases, may be reduced.
- Take steps to prevent device interference when conducting a radon test.

EPA estimates that radon causes thousands of cancer deaths in the U.S. each year.



**Radon is estimated to cause about 21,000 lung cancer deaths per year, according to EPA's 2003 Assessment of Risks from Radon in Homes (EPA 402-R-03-003). The numbers of deaths from other causes are taken from the Centers for Disease Control and Prevention's 2005-2006 National Center for Injury Prevention and Control Report and 2006 National Safety Council Reports.*

EPA 402/K-13/002 |March 2018 (revised)

www.epa.gov/radon

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Overview

This *Guide* answers important questions about radon and lung cancer risk. It also answers questions about testing and fixing for anyone buying or selling a home.

Radon Is a Cancer-Causing, Radioactive Gas

You cannot see, smell, or taste radon. But it still may be a problem in your home. When you breathe air containing radon, you increase your risk of getting lung cancer. In fact, the Surgeon General of the United States has warned that radon is the second leading cause of lung cancer in the United States today. *If you smoke and your home has high radon levels, your risk of lung cancer is especially high.*

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EPA Risk Assessment for Radon in Indoor Air

EPA has updated its estimate of the lung cancer risks from exposure to radon in indoor air. The Agency's updated risk assessment, *EPA Assessment of Risks from Radon in Homes* (EPA 402-R-03-003, June 2003), is available at https://www.epa.gov/radiation/epa-assessment-risks-radon-homes as a downloadable Adobe Acrobat PDF file. EPA's reassessment was based on the National Academy of Sciences' (NAS) report on the *Health Effects of Exposure to Radon* (BEIR VI, 1999). The Agency now estimates that there are about 21,000 annual radon-related lung cancer deaths, an estimate consistent with the NAS Report's findings.

You Should Test for Radon

Testing is the only way to find out your home's radon levels. EPA and the Surgeon General recommend testing all homes below the third floor for radon.

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You Can Fix a Radon Problem

If you find that you have high radon levels, there are ways to fix a radon problem. Even very high levels can be reduced to acceptable levels.

If You Are Selling a Home...

EPA recommends that you test your home before putting it on the market and, if necessary, lower your radon levels. Save the test results and all information you have about steps that were taken to fix any problems. This could be a positive selling point.

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If You Are Buying a Home...

EPA recommends that you know what the indoor radon level is in any home you consider buying. Ask the seller for their radon test results. If the home has a radon-reduction system, ask the seller for any information they have about the system.

If the home has not yet been tested, you should have the house tested.

See page 6

If you are having a new home built, there are features that can be incorporated into your home during construction to reduce radon levels.

See page 9

The radon testing guidelines in this *Guide* have been developed specifically to deal with the time-sensitive nature of home purchases and sales, and the potential for radon device interference. These guidelines are slightly different from the guidelines in other EPA publications which provide radon testing and reduction information for *non-real estate* situations.

This *Guide* recommends three short-term testing options for real estate transactions. EPA also recommends testing a home in the lowest level that could be used regularly, since a buyer may choose to live in a lower area of the home than that used by the seller.

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1. Why Should I Test for Radon

a. Radon Has Been Found in Homes All Over the United States

Radon is a radioactive gas that has been found in homes all over the United States. It comes from the natural breakdown of uranium in soil, rock, and water and gets into the air you breathe. Radon typically moves up through the ground to the air above and into your home through cracks and other holes in the foundation. Radon can also enter your home through well water. Your home can trap radon inside.

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Any home can have a radon problem. This means new and old homes, well-sealed and drafty homes, and homes with or without basements. In fact, you and your family are most likely to get your greatest radiation exposure at home. That is where you spend most of your time.

Nearly one out of every 15 homes in the United States is estimated to have an elevated radon level (4 pCi/L or more). Elevated levels of radon gas have been found in homes in your state. Contact your state radon office for information about radon in your area.

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b. EPA and the Surgeon General Recommend that You Test Your Home

Testing is the only way to know if you and your family are at risk from radon. EPA and the Surgeon General recommend testing all homes below the third floor for radon.

U.S. SURGEON GENERAL HEALTH ADVISORY

"Indoor radon is the second-leading cause of lung cancer in the United States and breathing it over prolonged periods can present a significant health risk to families all over the country. It's important to know that this threat is completely preventable. Radon can be detected with a simple test and fixed through well-established venting techniques." January 2005

You cannot predict radon levels based on state, local, and neighborhood radon measurements. Do not rely on radon test results taken in other homes in the neighborhood to estimate the radon level in your home. Homes which are next to each other can have different indoor radon levels. Testing is the only way to find out what your home's radon level is.

In some areas, companies may offer different types of radon service agreements. Some agreements let you pay a one-time fee that covers both testing and radon mitigation, if needed. Contact your state radon office to find out if these are available in your state.

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2. I'm Selling a Home. What Should I Do?

a. If Your Home Has Already Been Tested for Radon...

If you are thinking of selling your home and you have already tested your home for radon, review the *Radon Testing Checklist* to make sure that the test was done correctly. If so, provide your test results to the buyer.

See page 20

No matter what kind of test was done, a potential buyer may ask for a new test, especially if:

- The *Radon Testing Checklist* items were not met;
- The last test is not recent, e.g., within two years;
- You have renovated or altered your home since you tested; or
- The buyer plans to use a lower level of the house than was tested, such as a basement that could be used regularly by the buyer.

A buyer may also ask for a new test if your state or local government requires disclosure of radon information to buyers.

b. If Your Home Has *Not Yet* Been Tested for Radon...

Have a test taken as soon as possible. If you can, test your home before putting it on the market. You should test in the lowest level of the home that could be used regularly. This means testing in the lowest level that you currently live in or a lower level not currently used, but which a buyer might use as a family room or play area, etc.

The radon test result is important information about your home's radon level. Some states require radon measurement testers to follow a specific testing protocol. If you do the test yourself, you should carefully follow the testing protocol for your area or EPA's *Radon Testing Checklist*. If you hire a contractor to test your residence, protect yourself by hiring a **qualified*** individual or company.

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You can determine a service provider's qualifications to perform radon measurements or to mitigate your home in several ways. **Check with your state radon office**. Many states require radon professionals to be licensed, certified, or registered. Most states can provide you with a list of knowledgeable radon service providers doing business in the state. In states that don't regulate radon services, **ask the contractor if they hold a professional proficiency or certification credential**. Such programs usually provide members with a photo-ID card, which indicates their qualification(s) and its expiration date. If in doubt, you should check with their credentialing organization. Alternatively, **ask the contractor if they've successfully completed formal training** appropriate for testing or mitigation, e.g., a course in radon measurement or radon mitigation.

* You should first call your state radon office for information on qualified radon service providers and state-specific radon measurement or mitigation requirements. For up-to-date information on state radon program offices, visit **http://www.epa.gov/radon/whereyoulive.html**. EPA's detailed and technical guidance on radon measurement and mitigation is included in Section 8 (p. 29); however, state requirements or guidance may be more stringent. Visit **http://www.epa.gov/radon/radontest.html** for links to private sector radon credentialing programs.

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3. I'm Buying a Home. What Should I Do?

a. If the Home Has Already Been Tested for Radon...

If you are thinking of buying a home, you may decide to accept an earlier test result from the seller or ask the seller for a new test to be conducted by a qualified radon tester. Before you accept the seller's test, you should determine:

- The results of previous testing;
- Who conducted the previous test: the homeowner, a radon professional, or some other person;
- Where in the home the previous test was taken, especially if you may plan to live in a lower level of the home. For example, the test may have been taken on the first floor. However, if you want to use the basement as living space, test there; and
- What, if any, structural changes, alterations, or changes in the heating, ventilation, and air conditioning (HVAC) system have been made to the house since the test was done. Such changes might affect radon levels.

If you accept the seller's test, make sure that the test followed the *Radon Testing Checklist.*

See page 20

If you decide that a new test is needed, discuss it with the seller as soon as possible. If you decide to use a qualified radon tester, contact your state radon office to obtain a copy of their approved list of radon testing companies.

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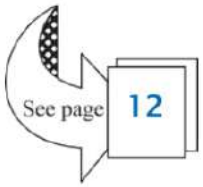
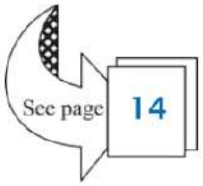
b. If the Home Has *Not Yet* Been Tested for Radon...

Make sure that a radon test is done as soon as possible. Consider including provisions in the contract specifying:



- ☐ Where the test will be located;
- ☐ Who should conduct the test;
- ☐ What type of test to do;
- ☐ When to do the test;



- ☐ How the seller and the buyer will share the test results and test costs (if necessary); and
- ☐ When radon mitigation measures will be taken, and who will pay for them.

Make sure that the test is done in the lowest level of the home that could be used regularly. This means the lowest level that you are going to use as living space whether it is finished or unfinished. A state or local radon official or qualified radon tester can help you make some of these decisions.

If you decide to finish or renovate an unfinished area of the home in the future, a radon test should be done before starting the project and after the project is finished. Generally, it is less expensive to install a radon-reduction system before (or during) renovations rather than afterwards.

4. I'm Buying or Building a New Home. How Can I Protect My Family?

a. Why Should I Buy a Radon-Resistant Home?

Radon-resistant techniques work. When installed properly and completely, these simple and inexpensive passive techniques can help to reduce radon levels. In addition, installing them at the time of construction makes it easier to reduce radon levels further if the passive techniques don't reduce radon levels to below 4 pCi/L. Radon-resistant techniques may also help to lower moisture levels and those of other soil gases. Radon-resistant techniques:

- ✓ ***Make Upgrading Easy:*** Even if built to be radon-resistant, **every new home should be tested for radon as soon as possible after occupancy**. If you have a test result of 4 pCi/L or more, a vent fan can easily be added to the passive system to make it an active system and further reduce radon levels.

- ✓ ***Are Cost-Effective:*** Building radon-resistant features into the house during construction is easier and cheaper than fixing a radon problem from scratch later. Let your builder know that radon-resistant features are easy to install using common building materials.

- ✓ ***Save Money:*** When installed properly and completely, radon-resistant techniques can also make your home more energy efficient and help you save on your energy costs.

Including passive radon-resistant features in a **new home** during construction usually costs less than fixing the home later. If your radon level is 4 pCi/L or more, consult a qualified mitigator to estimate the cost of upgrading to an active system by adding a vent fan to reduce the radon level. In an **existing home,** the cost to install a radon mitigation system is about the same as for other common home repairs. Check with, and get an estimate from, one or more qualified mitigators before fixing.

b. What Are Radon-Resistant Features?

Radon-resistant techniques (features) may vary for different foundations and site requirements. If you're having a house built, ask your builder if they're using a recognized approach (International Residential Code, Appendix F, ASTM E 1465-08, and ANSI/AARST RRNC 2.0 as examples). If your new house was built (or will be built) to be radon-resistant, it will include these basic elements:

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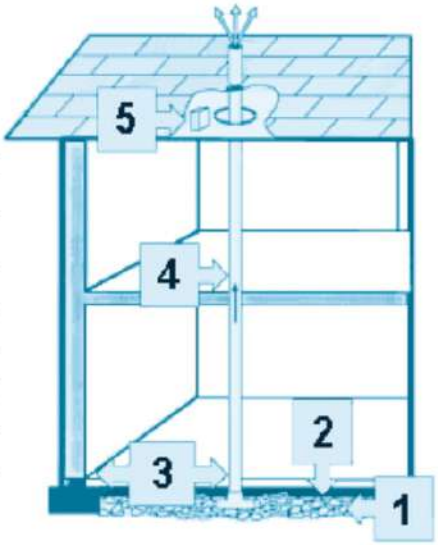
1. **Gas-Permeable Layer:** This layer is placed beneath the slab or flooring system to allow the soil gas to move freely underneath the house. In many cases, the material used is a 4-inch layer of clean gravel. This gas-permeable layer is used only in homes with basement and slab-on-grade foundations; it is not used in homes with crawlspace foundations.

2. **Plastic Sheeting:** Plastic sheeting is placed on top of the gas-permeable layer and under the slab to help prevent the soil gas from entering the home. In crawl spaces, the sheeting (with seams sealed) is placed directly over the crawlspace floor.

3. **Sealing and Caulking:** All below-grade openings in the foundation and walls are sealed to reduce soil gas entry into the home.

4. **Vent Pipe:** A 3- or 4-inch PVC pipe (or other gas-tight pipe) runs from the gas-permeable layer through the house to the roof, to safely vent radon and other soil gases to the outside.

5. **Junction Boxes:** An electrical junction box is included in the attic to make the wiring and installation of a vent fan easier. For example, you decide to activate the passive system because your test result showed an elevated radon level (4 pCi/L or more). A separate junction box is placed in the living space to power the vent fan alarm. An alarm is installed along with the vent fan to indicate when the vent fan is not operating properly.



5. How Can I Get Reliable Radon Test Results?

Radon testing is easy and the only way to find out if you have a radon problem in your home.

a. Types of Radon Devices

Since you cannot see or smell radon, special equipment is needed to detect it. When you're ready to test your home, you can order a radon test kit by mail from a qualified radon measurement services provider or laboratory. You can also hire a qualified radon tester, very often a home inspector, who will use a radon device(s) suitable to your situation. The most common types of radon testing devices are listed below. As new testing devices are developed, you may want to check with your state radon office before you test to get the most up-to-date information.

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✓ *Passive Devices*

Passive radon testing devices do not need power to function. These include **charcoal canisters, alpha-track detectors, charcoal liquid scintillation devices,** and **electret ion chamber detectors,** which are available in hardware, drug, and other stores; they can also be ordered by mail or phone. These devices are exposed to the air in the home for a specified period of time and then sent to a laboratory for analysis. Both short-term and long-term passive devices are generally inexpensive. Some of these devices may have features that offer more resistance to test interference or disturbance than other passive devices. Qualified radon testers may use any of these devices to measure the home's radon level.

✓ *Active Devices*

Active radon testing devices require power to function. These include **continuous radon monitors** and **continuous working level monitors.** They continuously measure and record the amount of radon or its decay products in the air. Many of these devices provide a report of this information which can reveal any unusual or abnormal swings in the radon level during the test period. A qualified tester can explain this report to you. In addition, some of these devices are specifically designed to deter and detect test interference. Some technically advanced active devices offer anti-interference features. Although these tests may cost more, they may ensure a more reliable result.

b. General Information for All Devices

A state or local radon official can explain the differences between devices and recommend the ones which are most appropriate for your needs and expected testing conditions.

Make sure to use a radon measurement device from a qualified laboratory. Certain precautions should be followed to avoid interference during the test period; see the *Radon Testing Checklist* for more information on how to get a reliable test result.

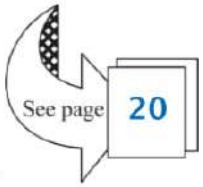
Radon Test Device Placement

EPA recommends that the test device(s) be placed in the lowest level of the home that could be used regularly, whether it is finished or unfinished. Conduct the test in any space that could be used by the buyer as a bedroom, play area, family room, den, exercise room, or workshop. Based on their client's intended use of the space, the qualified testing professional should identify the appropriate test location and inform their client (buyer). Do **not** test in a closet, stairway, hallway, crawl space or in an enclosed area of high humidity or high air velocity. An enclosed area may include a kitchen, bathroom, laundry room or furnace room.

c. Preventing or Detecting Test Interference

There is a potential for test interference in real estate transactions. There are several ways to prevent or detect test interference:

- Use a test device that frequently records radon or decay product levels to detect unusual swings;
- Employ a motion detector to determine whether the test device has been moved or if testing conditions have changed;
- Use a proximity detector to reveal the presence of people in the room which may correlate to possible changes in radon levels during the test;
- Record the barometric pressure to identify weather conditions which may have affected the test;
- Record the temperature to help assess whether doors and windows have been opened;
- Apply tamper-proof seals to windows to ensure closed-house conditions; and
- Have the seller/occupant sign a non-interference agreement.



Home buyers and sellers should consult a qualified radon test provider about the use of these precautions.

d. Length of Time to Test

Because radon levels tend to vary from day to day and season to season, a short-term test is less likely than a long-term test to tell you your year-round average radon level. However, if you need results quickly, a short-term test may be used to decide whether to fix the home.

There Are Two General Ways to Test Your Home for Radon:

✓ *Short-Term Testing*

The quickest way to test is with short-term tests. Short-term tests remain in your home from two to 90 days, depending on the device. There are two groups of devices which are more commonly used for short-term testing. The passive device group includes **alpha track detectors, charcoal canisters, charcoal liquid scintillation detectors,** and **electret ion chambers**. The active device group consists of different types of **continuous monitors**.

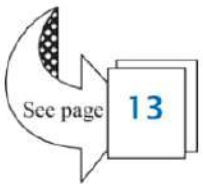
> Whether you test for radon yourself or hire a qualified tester, all radon tests should be taken for a minimum of 48 hours. Some devices require a longer (minimum) length of time, e.g., a 7-day charcoal canister device.

✓ *Long-Term Testing*

Long-term tests remain in your home for more than 90 days. **Alpha track** and **electret ion chamber detectors** are commonly used for this type of testing. A long-term test result is more likely to tell you your home's year-round average radon level than a short-term test. If time permits (more than 90 days), long-term tests can be used to confirm initial short-term results. When long-term test results are 4 pCi/L or higher, EPA recommends fixing the home.

e. Doing a Short-Term Test...

If you are testing in a real estate transaction and you need results quickly, any of the following three options for short-term tests are acceptable in determining whether the home should be fixed. Any real estate test for radon should include steps to prevent or detect interference with the test device.



When Choosing a Short-Term Testing Option...

There are trade-offs among the short-term testing options. Two tests taken at the same time (simultaneous) would improve the precision of this radon test. One test followed by another test (sequential) would most likely give a better representation of the seasonal average. Both active and passive devices may have features which help to prevent test interference. Your state radon office can help you decide which option is best.

Short-Term Testing Options	What to Do Next
Passive: Take two short-term tests at the same time in the same location for at least 48 hours.	Fix the home if the average of the two tests is 4 pCi/L or more.
or	
Take an initial short-term test for at least 48 hours. Immediately upon completing the first test, do a second test using an identical device in the same location as the first test.	Fix the home if the average of the two tests is 4 pCi/L or more.
Active: Test the home with a continuous monitor for at least 48 hours.	Fix the home if the average radon level is 4 pCi/L or more.

f. Using Testing Devices Properly for Reliable Results

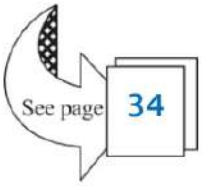
✓ *If You Do the Test Yourself*

When you are taking a short-term test, close windows and doors to the outside and keep them closed, except for normal entry and exit. If you are taking a short-term test lasting less than four days, be sure to:

- ☐ Close your windows and outside doors at least 12 hours before beginning the test;
- ☐ Do not conduct short-term tests lasting less than four days during severe storms or periods of high winds;
- ☐ Follow the testing instructions and record the start time and date;
- ☐ Place the test device at least 20 inches above the floor in a location where it will not be disturbed and where it will be away from drafts, high heat, high humidity, and exterior walls;
- ☐ Leave the test kit in place for as long as the test instructions say; and
- ☐ Once the test is finished, record the stop time and date, reseal the package, and return it immediately to the lab specified on the package for analysis.

You should receive your test results within a few days or weeks. If you need results quickly, you should find out how long results will take and, if necessary, request expedited service.

✓ *If You Hire a Qualified Radon Tester*



In many cases, home buyers and sellers may decide to have the radon test done by a qualified radon tester who knows the proper conditions, test devices, and guidelines for obtaining a reliable radon test result. They can also:

- Evaluate the home and recommend a testing approach designed to make sure you get reliable results;
- Explain how proper conditions can be maintained during the radon test;
- Emphasize to a home's occupants that a reliable test result depends upon their cooperation. Interference with, or disturbance of, the test or closed-house conditions will invalidate the test result;
- Analyze the data and report the measurement results; and
- Provide an independent test result.

Your state radon office may also have information about qualified radon testers and certification requirements.

g. Interpreting Radon Test Results

The average indoor radon level is estimated to be about 1.3 pCi/L; roughly 0.4 pCi/L of radon is normally found in the outside air. The U.S. Congress has set a long-term goal that indoor radon levels be no more than outdoor levels. While this goal is not yet technologically achievable for all homes, radon levels in many homes *can* be reduced to 2 pCi/L or less. A radon level below 4 pCi/L still poses a risk. Consider fixing when the radon level is between 2 and 4 pCi/L.

Radon and Smoking

RADON RISK IF YOU SMOKE

Radon Level	If 1,000 people who smoked were exposed to this level over a lifetime*. . .	The risk of cancer from radon exposure compares to**. . .	WHAT TO DO: Stop Smoking and. . .
20 pCi/L	About 260 people could get lung cancer	250 times the risk of drowning	Fix your home
10 pCi/L	About 150 people could get lung cancer	200 times the risk of dying in a home fire	Fix your home
8 pCi/L	About 120 people could get lung cancer	30 times the risk of dying in a fall	Fix your home
4 pCi/L	About 62 people could get lung cancer	5 times the risk of dying in a car crash	Fix your home
2 pCi/L	About 32 people could get lung cancer	6 times the risk of dying from poison	Consider fixing between 2 and 4 pCi/L
1.3 pCi/L	About 20 people could get lung cancer	(Average indoor radon level)	(Reducing radon levels below 2 pCi/L is difficult)
0.4 pCi/L	About 3 people could get lung cancer	(Average outdoor radon level)	

Note: If you are a former smoker, your risk may be lower.

RADON RISK IF YOU HAVE NEVER SMOKED

Radon Level	If 1,000 people who never smoked were exposed to this level over a lifetime*. . .	The risk of cancer from radon exposure compares to**. . .	WHAT TO DO:
20 pCi/L	About 36 people could get lung cancer	35 times the risk of drowning	Fix your home
10 pCi/L	About 18 people could get lung cancer	20 times the risk of dying in a home fire	Fix your home
8 pCi/L	About 15 people could get lung cancer	4 times the risk of dying in a fall	Fix your home
4 pCi/L	About 7 people could get lung cancer	The risk of dying in a car crash	Fix your home
2 pCi/L	About 4 people could get lung cancer	The risk of dying from poison	Consider fixing between 2 and 4 pCi/L
1.3 pCi/L	About 2 people could get lung cancer	(Average indoor radon level)	(Reducing radon levels below 2 pCi/L is difficult)
0.4 pCi/L		(Average outdoor radon level)	

Note: If you are a former smoker, your risk may be higher.
*Lifetime risk of lung cancer deaths from *EPA Assessment of Risks from Radon in Homes* (EPA 402-R-03-003).
**Comparison data calculated using the Centers for Disease Control and Prevention's 1999-2001 National Center for Injury Prevention and Control Reports.

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Sometimes short-term tests are less definitive about whether the radon level in the home is at or above 4 pCi/L; particularly when the results are close to 4 pCi/L. For example, if the average of two short-term tests is 4.1 pCi/L, there is about a 50 percent chance that the year-round average is somewhat below, or above, 4 pCi/L.

However, EPA believes that any radon exposure carries some risk; no level of radon is safe. Even radon levels below 4 pCi/L pose some risk. You can reduce your risk of lung cancer by lowering your radon level.

As with other environmental pollutants, there is some uncertainty about the magnitude of radon health risks. However, we know more about radon risks than risks from most other cancer-causing substances. This is because estimates of radon risks are based on data from human studies (underground miners). Additional studies on more typical populations are under way.

Your radon measurement will give you an idea of your risk of getting lung cancer. Your chances of getting lung cancer from radon depend mostly on:

- ✓ Your home's radon level;
- ✓ The amount of time you spend in your home; and
- ✓ Whether you are a smoker or have ever smoked.

Smoking combined with radon is an especially serious health risk. If you smoke or are a former smoker, the presence of radon greatly increases your risk of lung cancer. If you stop smoking now and lower the radon level in your house, you will reduce your lung cancer risk.

Radon Testing Checklist

For reliable test results, follow this *Radon Testing Checklist* carefully. Testing for radon is not complicated. Improper testing may yield inaccurate results and require another test. Disturbing or interfering with the test device, or with **closed-house conditions***, may invalidate the test results and is illegal in some states. If the seller or qualified tester cannot confirm that all items have been completed, take another test.

✓ *Before Conducting a Radon Test*:

- ☐ Notify the occupants of the importance of proper testing conditions. Give the occupants written instructions or a copy of this *Guide* and explain the directions carefully.
- ☐ Conduct the radon test for a minimum of 48 hours; some test devices have a minimum exposure time greater than 48 hours.
- ☐ When doing a short-term test ranging from 2-4 days, it is important to maintain closed-house conditions for at least 12 hours before the beginning of the test and during the entire test period.
- ☐ When doing a short-term test ranging from 4-7 days, EPA recommends that closed-house conditions be maintained.
- ☐ If you conduct the test yourself, use a qualified radon measurement device and follow the laboratory's instructions. Your state may be able to provide you with a list of do-it-yourself test devices available from qualified laboratories.
- ☐ If you hire someone to do the test, hire only a qualified individual. Some states issue photo identification (ID) cards; ask to see it. The tester's ID number, if available, should be included or noted in the test report.

*Closed-house conditions means keeping all windows closed, keeping doors closed except for normal entry and exit, and not operating fans or other machines which bring in air from outside. Fans that are part of a radon-reduction system or small exhaust fans operating for only short periods of time may run during the test.

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Radon Testing Checklist

(continued)

- ☐ The test should include method(s) to prevent or detect interference with testing conditions or with the testing device itself.
- ☐ If the house has an active radon-reduction system, make sure the vent fan is operating properly. If the fan is not operating properly, have it (or ask to have it) repaired and then test.

✓ *During a Radon Test*:

- ☐ Maintain closed-house conditions during the entire duration of a short-term test, especially for tests shorter than one week in length.
- ☐ Operate the home's heating and cooling systems normally during the test. For tests lasting less than one week, operate only air-conditioning units which recirculate interior air.
- ☐ Do not disturb the test device at any time during the test.
- ☐ If a radon-reduction system is in place, make sure the system is working properly and will be in operation during the entire radon test.

✓ *After a Radon Test*:

- ☐ If you conduct the test yourself, be sure to promptly return the test device to the laboratory. Be sure to complete the required information, including start and stop times, test location, etc.
- ☐ If an elevated radon level is found, fix the home. Contact a qualified radon-reduction contractor about lowering the radon level. EPA recommends that you fix the home when the radon level is 4 pCi/L or more.
- ☐ Be sure that you or the radon tester can demonstrate or provide information to ensure that the testing conditions were not violated during the testing period.

6. What Should I Do if the Radon Level is High?

a. High Radon Levels Can Be Reduced

EPA recommends that you take action to reduce your home's indoor radon levels if your radon test result is 4 pCi/L or higher. It is better to correct a radon problem before placing your home on the market because then you have more time to address a radon problem.

If elevated levels are found during the real estate transaction, the buyer and seller should discuss the timing and costs of radon reduction. The cost of making repairs to reduce radon levels depends on how your home was built and other factors. Most homes can be fixed for about the same cost as other common home repairs. Check with and get an estimate from one or more qualified mitigators.

b. How to Lower the Radon Level in Your Home

A variety of methods can be used to reduce radon in homes. Sealing cracks and other openings in the foundation is a basic part of most approaches to radon reduction. EPA does not recommend the use of sealing alone to limit radon entry. Sealing alone has not been shown to lower radon levels significantly or consistently.

In most cases, a system with a vent pipe(s) and fan(s) is used to reduce radon. These "sub-slab depressurization" systems do not require major changes to your home. Similar systems can also be installed in homes with crawl spaces. These systems prevent radon gas from entering the home from below the concrete floor and from outside the foundation. Radon mitigation contractors may use other methods that may also work in your home. The right system depends on the design of your home and other factors.

Techniques for reducing radon are discussed in EPA's *Consumer's Guide to Radon Reduction*. As with any other household appliance, there are costs associated with the operation of a radon-reduction system.

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Radon and Home Renovations

If you are planning any major renovations, such as converting an unfinished basement area into living space, it is especially important to test the area before you begin.

If your test results indicate an elevated radon level, radon-resistant techniques can be inexpensively included as part of the renovation. Major renovations can change the level of radon in any home. Test again after the work is completed.

You should also test your home again after it is fixed to be sure that radon levels have been reduced. If your living patterns change and you begin occupying a lower level of your home (such as a basement), you should retest your home on that level. In addition, it is a good idea to retest your home sometime in the future to be sure radon levels remain low.

c. Selecting a Radon-Reduction (Mitigation) Contractor

Select a qualified radon-reduction contractor to reduce the radon level in your home. Any mitigation measures taken or system installed in your home must conform to your state's regulations. In states without regulations covering mitigation, EPA recommends that the system conform to ASTM E 2121.

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EPA recommends that the mitigation contractor review the radon measurement results before beginning any radon-reduction work. Test again after the radon mitigation work has been completed to confirm that previous elevated levels have been reduced. EPA recommends that the test be conducted by an independent, qualified radon tester.

d. What Can a Qualified Radon-Reduction Contractor Do for You?

A qualified radon-reduction (mitigation) contractor should be able to:

- ☐ Review testing guidelines and measurement results, and determine if additional measurements are needed;
- ☐ Evaluate the radon problem and provide you with a detailed, written proposal on how radon levels will be lowered;
- ☐ Design a radon-reduction system;
- ☐ Install the system according to EPA recommended standard, or state and local codes; and
- ☐ Make sure the finished system effectively reduces radon levels to acceptable levels.

Choose a radon mitigation contractor to fix your radon problem just as you would for any other home repair. You may want to get more than one estimate, and ask for and check their references. Make sure the person you hire is qualified to install a mitigation system. Some states regulate or certify radon mitigation services providers.

Be aware that a potential conflict of interest exists if the same person or firm performs the testing and installs the mitigation system. Some states may require the homeowner to sign a waiver in such cases. If the same person or firm does the testing and mitigation, make sure the testing is done in accordance with the *Radon Testing Checklist*. Contact your state radon office for more information.

e. Radon in Water

The radon in your home's indoor air can come from two sources, the soil or your water supply. Compared to radon entering your home through the water, radon entering your home through the soil is a much larger risk. If you've tested for radon in air and have elevated radon levels **and** your water comes from a private well, have your water tested. The devices and procedures for testing your home's water supply are different from those used for measuring radon in air.

The radon in your water supply poses an inhalation risk and an ingestion risk. Research has shown that your risk of lung cancer from breathing radon in air is much larger than your risk of stomach cancer from swallowing water with radon in it. Most of your risk from radon in water comes from radon released into the air when water is used for showering and other household purposes.

Radon in your home's water is not usually a problem when its source is surface water. A radon in water problem is more likely when its source is ground water, e.g., a private well or a public water supply system that uses ground water. Some public water systems treat their water to reduce radon levels before it is delivered to your home. If you are concerned that radon may be entering your home through the water and your water comes from a public water supply, contact your water supplier.

If you've tested your private well and have a radon in water problem, it can be fixed. Your home's water supply can be treated in one of two ways. **Point-of-entry** treatment can effectively remove radon from the water before it enters your home. Point-of-entry treatment usually employs either granular activated carbon (GAC) filters or aeration devices. While GAC filters usually cost less than aeration devices, filters can collect radioactivity and may require a special method of disposal. **Point-of-use** treatment devices remove radon from your water at the tap, but only treat a small portion of the water you use, e.g., the water you drink. Point-of-use devices are not effective in reducing the risk from breathing radon released into the air from all water used in the home.

For information on radon in water, testing and treatment, and existing or planned radon in drinking water standards, visit https://archive.epa.gov/water/archive/web/html/index-9.html, an EPA web site. If your water comes from a private well, you can also contact your state radon office.

7. Radon Myths and Facts

***MYTH* #1**: Scientists are not sure that radon really is a problem.

FACT: Although some scientists dispute the precise number of deaths due to radon, all the major health organizations (like the Centers for Disease Control, the American Lung Association, and the American Medical Association) agree with estimates that radon causes thousands of preventable lung cancer deaths every year. This is especially true among smokers, since the risk to smokers is much greater than to non-smokers.

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***MYTH* #2**: Radon testing devices are not reliable and are difficult to find.

FACT: Reliable radon tests are available from qualified radon testers and companies. Active radon devices can continuously gather and periodically record radon levels to reveal any unusual swings in the radon level during the test. Reliable testing devices are also available by phone or mail-order, and can be purchased in hardware stores and other retail outlets. Contact your state radon office for a list of qualified radon test companies.

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***MYTH* #3**: Radon testing is difficult and time-consuming.

FACT: Radon testing is easy. You can test your home yourself or hire a qualified radon test company. Either approach takes only a small amount of time and effort.

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***MYTH* #4**: Homes with radon problems cannot be fixed.

FACT: There are solutions to radon problems in homes. Thousands of home owners have already lowered their radon levels. Most homes can be fixed for about the same cost as other common home repairs. Contact your state radon office for a list of qualified mitigation contractors.

***MYTH* #5**: Radon only affects certain types of homes.

FACT: Radon can be a problem in all types of homes, including old homes, new homes, drafty homes, insulated homes, homes with basements, and homes without basements. Local geology, construction materials, and how the home was built are among the factors that can affect radon levels in homes.

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***MYTH* #6**: Radon is only a problem in certain parts of the country.

FACT: High radon levels have been found in every state. Radon problems do vary from area to area, but the only way to know a home's radon level is to test.

***MYTH* #7**: A neighbor's test result is a good indication of whether your home has a radon problem.

FACT: It is not. Radon levels vary from home to home. The only way to know if your home has a radon problem is to test it.

***MYTH* #8**: Everyone should test their water for radon.

FACT: While radon gets into some homes through the water, it is important to first test the air in the home for radon. If your water comes from a public water system that uses ground water, call your water supplier. If high radon levels are found and the home has a private well, call the Safe Drinking Water Hotline at (800) 426-4791 for information on testing your water. Also, call your state radon office for more information about radon in air.

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***MYTH* #9**: It is difficult to sell a home where radon problems have been discovered.

FACT: Where radon problems have been fixed, home sales have not been blocked. The added protection will be a good selling point.

***MYTH* #10**: I have lived in my home for so long, it does not make sense to take action now.

FACT: You will reduce your risk of lung cancer when you reduce radon levels, even if you have lived with an elevated radon level for a long time.

***MYTH* #11**: Short-term tests cannot be used for making a decision about whether to reduce the home's high radon levels.

FACT: Short-term tests can be used to decide whether to reduce the home's high radon levels. However, the closer the short-term testing result is to 4 pCi/L, the less certainty there is about whether the home's year-round average is above or below that level. Keep in mind that radon levels below 4 pCi/L still pose some risk and that radon levels can be reduced to 2 pCi/L or below in most homes.

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8. Need More Information about Radon?

If you have a radon-related question, you should contact your state radon office. The following web sites, hotlines, and publications are your best sources of information. Visit our Frequent Questions web site at https://iaq.zendesk.com/hc/en-us/sections/202370518-Indoor-Air-Quality. You can also find indoor air quality information and publications on EPA's many web sites.

a. World Wide Web Sites (EPA)

These are EPA's most important web sites for information on radon and indoor air quality in homes. All the EPA publications listed in this section are available on EPA's web sites.

- https://www.epa.gov/radon/. EPA's main radon page. Includes links to the NAS radon report, radon-resistant new construction, the map of radon zones, radon publications, hotlines, and more.

- https://www.epa.gov/radon/find-information-about-local-radon-zones-and-state-contact-information. Provides detailed information on contacting your state's radon office, including links to some state web sites. State indoor air quality contacts are also included.

- https://www.epa.gov/radon/publications-about-radon. Offers the full text version of EPA's most popular radon publications, including the *Home Buyer's and Seller's Guide to Radon*, the *Consumer's Guide to Radon Reduction*, and the
    - *Model Standards and Techniques for Control of Radon in New Residential Buildings*, and others.

- https://www.epa.gov/iaq. EPA's main page on indoor air quality. Includes information on indoor risk factors, e.g., asthma, secondhand smoke, carbon monoxide, duct cleaning, ozone generating devices, indoor air cleaners, flood
    - cleanup, etc.

- https://archive.epa.gov/water/archive/web/html/index-9.html. EPA's main page on radon in water. Includes information on statutory requirements and links to the drinking water standards program.

b. Radon Hotlines (Toll-Free)

EPA supports the following hotlines to best serve consumers with radon-related questions and concerns.

☎ **1-800-SOS-RADON (767-7236).*** Purchase radon test kits by phone.

☎ **1-800-55RADON (557-2366).*** Get live help for your radon questions.

☎ **1-800-644-6999.*** Radon Fix-It Hotline. For general information on fixing or reducing the radon level in your home.

☎ **1-866-528-3187.*** Línea Directa de Información sobre Radón en Español. Hay operadores disponibles desde las 9:00 AM hasta las 5:00 PM para darle información sobre radón y como ordenar un kit para hacer la prueba de radón en su hogar.

☎ **1-800-426-4791**. Safe Drinking Water Hotline. For general information on drinking water, radon in water, testing and treatment, and standards for radon in drinking water. Operated under a contract with EPA.

*Operated by Kansas State University in partnership with EPA.

9. State Radon Offices

(https://www.epa.gov/radon/find-information-about-local-radon-zones-and-state-contact-information)

Up-to-date information on how to contact your state radon office is available on the web (above). You will also find a list of state hotlines, state indoor air coordinators, and state web sites (if available). Some states can also provide you with a list of qualified radon services providers. Native Americans living on Tribal Lands should contact their Tribal Health Department or Housing Authority for assistance.

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10. EPA Regional Offices

(https://www.epa.gov/radon/find-information-about-local-radon-zones-and-state-contact-information

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REGION	STATES	PHONE / FAX
US EPA New England/ **Region 1** One Congress Street, Suite 1100 John F. Kennedy Federal Bldg. Boston, MA 02114-2023	CT, MA, ME, NH, RI, VT	617-918-1630 617-918-4940-fax
US EPA/ **Region 2** 290 Broadway, 28th Floor New York, NY 10007-1866	NJ, NY, PR, VI	212-637-3745 212-637-4942-fax
US EPA/ **Region 3** 1650 Arch Street Philadelphia, PA 19103	DC, DE, MD, PA, VA , WV	800-438-2474 Toll-free 215-814-2086 215-814-2101-fax
US EPA/ **Region 4** 61 Forsyth Street, SW Atlanta, GA 30303-3104	AL, FL, GA, KY, MS, NC, SC, TN	404-562-9145 404-562-9095-fax
US EPA/ **Region 5** 77 West Jackson Blvd., (AE-17J) Chicago, IL 60604	IL, IN, MI, MN, OH, WI	312-353-6686 312-886-0617-fax
US EPA/ **Region 6** 1445 Ross Avenue (6PD-T) Dallas, TX 75202-2733	AR, LA, NM, OK, TX	800-887-6063 Toll-free 214-665-7550 214-665-6762-fax
US EPA/ **Region 7** 901 North 5th Street (ARTD / RALI) Kansas City, KS 66101	IA, KS, MO, NE	913-551-7260 913-551-7065-fax
US EPA/ **Region 8** 999 18th Street, Suite 500 (8P-AR) Denver, CO 80202-2466	CO, MT, ND, SD, UT, WY	800-227-8917 Toll-free 303-312-6031 303-312-6044-fax
US EPA/ **Region 9** 75 Hawthorne Street (Air-6) San Francisco, CA 94105	AZ, CA, HI, NV, GUAM	415-744-1046 415-744-1073-fax
US EPA/ **Region 10** 1200 Sixth Avenue (OAQ-107) Seattle, WA 98101	AK, ID, OR, WA	206-553-7299 206-553-0110-fax

11. Index

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U.S. SURGEON GENERAL HEALTH ADVISORY

"Indoor radon is the second-leading cause of lung cancer in the United States and breathing it over prolonged periods can present a significant health risk to families all over the country. It's important to know that this threat is completely preventable. Radon can be detected with a simple test and fixed through well-established venting techniques." January 2005

Consumers need to know about the health of a house they are considering purchasing, including whether there is a radon problem, and if so, how to fix it. The *Home Buyer's and Seller's Guide to Radon* provides practical consumer information that every home buyer needs to know.

Consumer Federation of America Foundation

AMERICAN LUNG ASSOCIATION

NATIONAL ENVIRONMENTAL HEALTH ASSOCIATION

NACO National Association of Counties

American Society of Home Inspectors

ENVIRONMENTAL LAW • INSTITUTE

National Safety Council

EPA United States Environmental Protection Agency

Indoor Environments Division (6609J)
EPA 402/K-13/002 | September 2013 (revised) | www.epa.gov/radon

Indoor Air Quality (IAQ)

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What New Landlords Need to Know About Leasing Property

Georgia REALTORS®

2024 Printing

This brochure was prepared courtesy of the Georgia Association of REALTORS® to help owners with leasing their property. The recommendations herein are general in nature and are not intended to be exhaustive. Some of the recommendations may not apply to specific properties. Owners are encouraged to consult with experts and professionals of their own choosing to ensure that they are protected in leasing a house.

Renting a house can be financially rewarding. It can provide the landlord with a stream of income and the potential for property appreciation in a rising housing market. Renting can also give the property owner an alternative to selling if market conditions are not favorable. However, there can be potential pitfalls in leasing houses, particularly if the owner is new to the business. This brochure is intended to help new landlords understand some of these risks and how best to avoid them.

Confirm that Leasing is Permitted. Leasing of houses is restricted in the covenants of most condominium and some homeowners' associations. Some of those restrictions prohibit leasing of houses if a certain percentage of the houses in the community are already leased. In other cases, leases must be for a minimum lease term. Before leasing a house, the property owner should carefully review any covenants applicable to his or her property and confirm what restrictions, if any, are applicable to leasing.

Landlords Need Special Insurance. Most homeowner insurance policies only provide coverage if the house is owner occupied. If an owner is leasing out his or her property, the owner will normally need to get special insurance to cover the property while it is being leased. Owners should consult with their insurance professionals to determine what insurance and the amount of coverage that is needed. Many insurance brokers recommend that landlords: a) obtain what is known as a DP-3 policy; and b) increase the amount of liability insurance over what they had when the property was owner occupied to cover what is generally thought to be a greater risk of claims associated with leasing property.

Contractors Performing Work on Property Should Be Insured. Contractors performing work on the property should be required to carry worker's compensation insurance and general liability insurance. Landlords should obtain a certificate of insurance and a copy of the declarations page for each of the contractor's insurance policies as evidence of such insurance. Worker's compensation insurance helps protect the landlord against claims if the contractor or his employees are injured while working on the property. Liability insurance helps protect the landlord against claims for damages and/or injuries caused as a result of the work of the contractor.

Conduct a thorough background check of the tenant. It is much easier to prevent bad tenants from moving into a house than to get them out once they move in. Inexperienced landlords sometimes underestimate the risk of tenants not paying rent or damaging the house. Doing a thorough background check is an important tool to predict whether tenants will honor their contractual obligations under the lease. Even with all of the safeguards, however, there is no guarantee that the tenant will do what he or she has agreed to do in the lease.

Have a written lease. A lease for one (1) year or less is legally enforceable in Georgia even if it is not in writing. However, property owners are strongly advised not to allow any tenant to move into a house without a written lease. Verbal leases create too much potential for the parties to have different recollections of the business arrangement between the parties. Moreover, verbal leases rarely cover all of the issues that a well written lease will cover – often leaving the owner unprotected in the event of a problem tenant.

Possession of the property belongs to the tenant. Georgia law generally provides that possession of the property belongs to the tenant and not the landlord once the lease commences, except to the extent otherwise provided in the lease. Landlords and their agents do not have a right to inspect the property, put up for sale or for lease signs or show the property to other prospective tenants unless the lease specifically so provides. Therefore, it is important that the rights of the landlord and his or her agents to enter the property are clearly stated in the lease.

Fair housing laws apply to rentals. Federal and state fair housing laws prohibit discrimination in the leasing of housing on the basis of race, color, religion, sex, national origin, handicap and familial status. This means, for example, that an owner of a three-bedroom house cannot prohibit a husband and wife and their four children from renting the owner's house because the landlord is concerned that they have too many children. Such a prohibition would constitute unlawful discrimination based upon familial status under our fair housing laws. Of course, reasonable occupancy limitations such as no more than two (2) persons per bedroom are generally allowed. However, with single family dwellings, HUD will also consider other spaces that a tenant could use as a bedroom. For instance, what the landlord calls a "bonus room" may be used by a tenant as a bedroom for their children. Similarly, a handicapped person needing a service animal must be allowed this by the landlord as a reasonable accommodation – even in a home in which pets are not permitted.

The landlord cannot delegate repairs to the tenant. Georgia law requires landlords of residential properties to perform all repairs to the property. While tenants can be asked to perform maintenance, they cannot be asked in the lease to make repairs even if they are willing to do so. Therefore, for example, while a tenant can be asked to change the batteries on a smoke alarm or replace filters in a heating and air conditioning unit (since these are maintenance functions), a tenant cannot be asked to repair a broken smoke alarm or a heating and air conditioning unit.

Follow All Georgia Mandated Procedures Applicable to Landlords. Georgia law requires landlords to follow certain state mandated procedures unless the landlord: (a) is a natural person (i.e. – not a legal entity such as a corporation or limited liability company); (b) owns 10 or fewer rental units between the landlord and his/her immediate family members; and (c) the house is not professionally managed by a third party property manager. Some landlords follow these state mandated procedures even if they are not required to do so because the procedures can, in some cases, protect the landlord as well as the tenant. These state law requirements include the following:

(a) Move-In Inspection: Unless the landlord is exempt from the requirement, the landlord must give the tenant a comprehensive list of any damage to the property prior to the tenant giving the landlord a security deposit. The landlord and the tenant should each sign the list and retain a copy for their records. While not required by state law, landlords are encouraged to supplement the list with photographs and digital recordings of the property so that they have an accurate and complete record of the condition of the property at the commencement of the lease in the event of a dispute over the property's condition at the end of the lease.

(b) Move-Out Procedure: Unless the landlord is exempt from the requirement, the landlord is similarly required to give the tenant a list of damages to the property within three (3) business days after the date of the termination of occupancy. This list should identify any damage done to the property which is the basis for the tenant not getting back some or all of the tenant's security deposit. The tenant has the right to do his or her own inspection for damage within five (5) business days after the termination of occupancy. If there is agreement on the list of damages, the landlord and tenant should both sign it and keep a copy. If the tenant refuses to sign the list or disagrees with it, the tenant is supposed to sign a statement explaining the basis for his or her disagreement. While landlords may recover the cost of repairing damage to the property caused by the tenant, the landlord cannot recover for normal wear and tear.

(c) Deposit and Return of Security Deposits: Unless the landlord is exempt from the requirement, the security deposit is required to be held in an escrow account established only for that purpose. Alternatively, the landlord may post a surety bond for the security deposits in the clerk of court's office in the county in which the property is located. Tenants are also required to be notified in writing of the location of the security deposit. The security deposit must generally be returned to the tenant within 30 (thirty) days of the lease termination. Within this time frame, the landlord is required to provide the tenant with a written statement of the reasons the landlord kept any portion of the security deposit and send the balance of the deposit, if any, to the tenant.

(d) Not Following State Mandated Procedures Can Have Serious Negative Consequences: Unless the landlord is exempt from state law, there are serious negative consequences to landlords not following these state mandated procedures. Where a security deposit is not handled correctly and the landlord is not subject to an exemption, the landlord is required to return the entire security deposit even if the tenant damaged the property or failed to pay rent. This is also the case if the move-in and move-out forms are not timely prepared and signed. Finally, any landlord subject to the state mandated procedures who improperly retains the security deposit can be liable to the tenant for three (3) times the sum improperly held plus attorney's fees.

Evicting a tenant is not necessarily a quick process. Most residential evictions are handled in the magistrate court of the county in which the property is located. After sending a letter to the tenant terminating the lease and demanding possession, a lawsuit is normally commenced by filling out certain paperwork provided by the magistrate's court. Evicting a tenant is not necessarily a quick process if the tenant resists the eviction. While the process can take as little as two to three weeks if it goes smoothly, it can take one to six months if it is contested or if the tenant files for bankruptcy. Landlords also do not always recover their attorney's fees and all of the rent owed by the tenant. Landlords who have experienced a contested eviction tend to start eviction proceedings sooner rather than later to minimize the time delays that can occur with an eviction.

Certain Military Personnel Can Get Out of Leases Early. Under both state and federal law, certain military personnel can get out of their leases early. Georgia law, which is more protective than federal law, applies to persons who are on active duty with the U.S. military and receive change of station orders or temporary duty orders for a period in excess of three (3) months. In that case, such a person's liability for rent under a lease is limited to (a) thirty (30) days rent after written notice and proof of the assignment are given to the landlord and (b) the cost of repairing damage to the property by an act or omission of the tenant.

Landlords Must Make Special Lead-Based Paint Disclosures on Houses Built Prior to 1978. If a landlord's house was built prior to 1978, or any portion of the house contains painted fixtures made prior to 1978, then the landlord must disclose what he or she knows about the presence of lead-based paint in the property. Failure to do this can result in stiff penalties under federal law.

Landlord May Have to Pay Capital Gains Tax. Some landlords decide to lease because they were unable to sell their personal residences for the price they anticipated. Under current federal tax law, if a homeowner has occupied his or her home for two of the previous five years, then that property is considered the "personal residence" of the owner and the sale of their personal residence is generally not subject to capital gains taxes. If a homeowner has owned the property for several years, there is a probability that, if sold as an investment property, there will be a significant capital gains tax obligation. That homeowner could still lease his or her house for two years, then sell the house within the third year, thereby selling their "personal residence" and avoiding a capital gains tax obligation. Prior to leasing, landlords should consult with their CPA or tax advisor to better understand their tax obligations.

Be realistic in deciding whether to hire professional management. Some property owners view managing rental properties as easy until a tenant stops paying rent or the owner gets the late night call that a plumbing line has broken and must be fixed immediately. Being a property manager is work. While some owners have the time and inclination to do that job well, others do not. While this does not happen often, some of the risks landlords face include a tenant making methamphetamines or growing marijuana in the house, a tenant dying during the lease term, or a tenant skipping out before the lease expires. A professional property manager can help reduce the risk of these occurrences. For those risks that could not be avoided, a professional manager may be able to help reduce the owner's expense. Before deciding whether to self-manage or hire a professional property manager, each owner should realistically assess whether he or she has the time and skills to be a good property manager. If an owner decides to hire a professional property manager, the owner should remember that property management is considered real estate brokerage in Georgia and can only be done by someone licensed with the Georgia Real Estate Commission.

Conclusion: Landlord tenant law in Georgia contains many technical requirements that can be a trap for property owners unfamiliar with Georgia law. Getting educated on the law or seeking professional management assistance can avoid many of these problems. For additional information, landlords are encouraged to obtain and review the Georgia Landlord Tenant Handbook which is available at www.dca.ga.gov.