

# The Connection Between Health and Housing



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## The connection between housing and health



**“The connection between health and the dwelling of the population is one of the most important that exists”. [1]**

***Florence Nightingale***

Citado en Lowry, S. BMJ, 1991, 303, 838-840



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## Why are healthy homes important to us?



Homes can affect health both physically and mentally.

Young children spend as much as **70%** of their time inside their homes



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## Why are healthy homes important to us?



**Home is where the heart is.**  
Pliny

The strength of a nation derives from the integrity of the home.  
Confucius

It may be frail; its roof may shake; the wind may blow through it; the storms may enter; the rain may enter – but the King of England cannot enter; all his forces dare not cross the threshold of the ruined tenement.

William Pitt

One of our deepest needs is to be at home.  
Timothy Radcliffe

Where thou art, that is home.  
Emily Dickinson

Home is the place where, when you have to go there, They have to take you in.  
Robert Frost

There's no place like home.  
Dorothy, Wizard of Oz

He is happiest, be he King or peasant, who finds peace in his home.  
Johann Wolfgang von Goethe



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## Health problems related to housing conditions

- Asthma
- Allergies
- Brain damage
- Behavior & learning problems
- Lung cancer
- Injuries
- Poisonings



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## Hazards in the home

### Asthma Triggers

House dust mites can cause asthma to develop, and cats, dogs, cockroaches, mice, dust mites, tobacco smoke and molds can trigger asthma attacks.



### Mold

Mold in damp indoor environments is associated with nose and throat irritation, coughing, wheezing and asthma symptoms. Some people can develop pneumonia if they are exposed to mold.



### Tobacco smoke

Tobacco smoke can trigger asthma attacks and cause cancer and death.



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## Hazards in the home

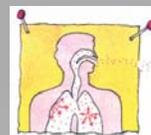
### Lead

Lead in paint, dust and soil can cause lead poisoning which can result in lowered IQ, behavior and learning problems and death.



### Radon

Radon is a naturally occurring gas that comes from the ground into a house. Radon can cause lung cancer.



### Carbon Monoxide

Carbon monoxide can build up in a house if a furnace isn't working right or an un-ventilated gas heater is used. High levels of carbon monoxide can cause headaches, dizziness, confusion and death.



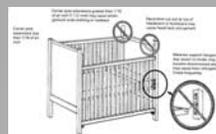
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## Hazards in the home

### Injuries in the Home

Falls, poisonings, fires, burns, choking and suffocation are the top causes of injuries in the home.



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## Children and seniors are most vulnerable

Children spend a lot of time indoors

Children eat and drink more than adults (in relation to body weight)



Children are still developing

Children behave differently



Seniors spend a lot of time indoors



Breathing problems are easily triggered.

Falls are more common



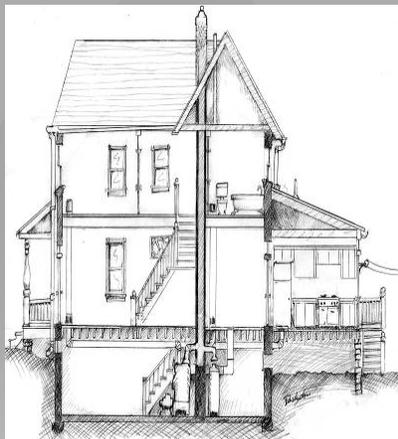
Seniors can overheat



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## 7 Healthy Homes Principles



### Keep It:

1. Dry
2. Clean
3. Ventilated
4. Pest-Free
5. Safe
6. Contaminant-Free
7. Maintained



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## Start with People

- What good are they?
- What's difficult about people?
- How can you deal with people?



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## No Place Like Home!

American Housing Survey from 2005 –  
people were asked to rate their homes from  
1 to 10 (1 is the worst and 10 is the best)

- 53% of people surveyed rated their homes as an 8, 9 or 10 EVEN THOUGH their houses have severe problems.
- 13% of people living below poverty rated their home as a 1



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## What's a house?

### Shelter from:

- Animals and insects
- Wind
- Sun
- Rain (sleet, snow)
- Cold or hot air
- Dust

### A shelter needs to:

- Add heat
- Remove heat (air conditioning)
- Ventilate (air flow in and air flow out)
- Maybe add or remove humidity



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## *Follow These Seven Principles to Make A Home Healthy*

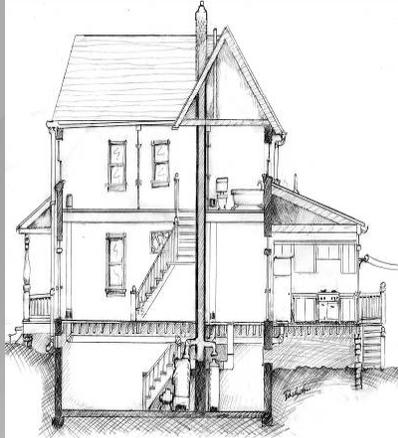
- A key reference: *Help Yourself to a Healthy Home.*
- **Remember**, a healthy home is one that is dry, clean, pest-free, ventilated, safe, contaminant-free; and maintained.



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## 7 Healthy Homes Principles



### Keep It:

1. **Dry**
2. Clean
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## Health Problems Associated with Mold and Moisture

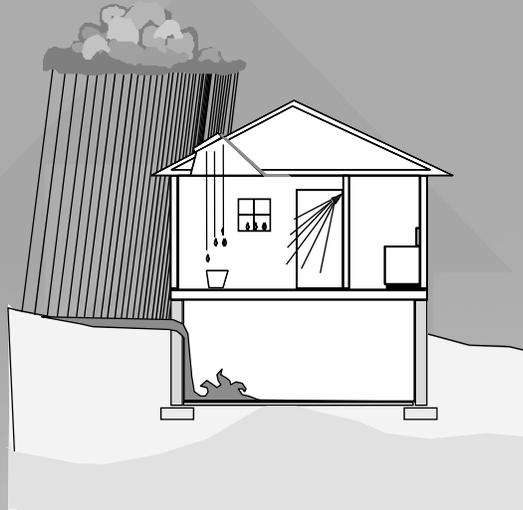
- Nose and throat irritation and congestion
- Coughing
- Wheezing
- Asthma symptoms
- Pneumonia (in people particularly sensitive to mold)



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## There are three ways your house gets wet



1. Rain from the **OUTSIDE** leaks through the roof, walls, foundation or basement
2. Water leaks from showers, toilets or sinks on the **INSIDE**
3. Warm air comes into contact with a cold surface such as a window, and **CONDENSATION** (tiny drops of water) forms. (*Think about what happens when you put water and lots of ice in a glass and sit outside on a warm day. What happens to the glass?*)



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## Examples of Moisture Problems – rain from the outside



This downspout dumps rain water next to the foundation of a house – there should be an extension of the pipe to carry the water farther away from the foundation. Note also that the downspout has been crushed by people or lawnmowers.



Moisture damage beneath a window from leaks in the corners or edges.



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## Examples of Moisture Problems – rain from the outside



Basements and crawlspaces are often damp. The moldy walls in this picture are probably from rainwater that is not directed away from the house.



Poorly managed rainwater and warm, humid outdoor air are the two most common sources of moisture in crawlspaces.



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## Moisture Problems – plumbing leaks



Kitchens, baths and laundry rooms are the places most likely to have plumbing leaks.



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## Condensation when cold outside



**Mold around window where there is no insulation.**

**Mold due to poor insulation or wind blowing through insulation.**



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## Keep It Dry – What You Can Do

### If you rent or own

- Use kitchen and bathroom fans.
- Wipe down shower walls after baths or showers
- If the humidity in your house is more than 50%, turn on air conditioning.
- Use a dehumidifier to dry out damp areas.
- Throw away carpeting, cardboard boxes, insulation and anything very wet for more than two days (if you rent, check with your landlord first).
- Clean up mold if the area with mold is relatively small.

### If you rent, your landlord should:

- Clean up mold
- Make sure downspouts direct water away from foundations
- Repair leaking roofs, walls doors or windows



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## Use *Help Yourself to a Healthy Home* as a Client Resource

**Mold & Moisture**

**ACTION STEPS, continued**

- After cleaning up mold, using a high efficiency (HEPA) vacuum or air cleaner may help to get rid of mold spores in the air. You may be able to borrow a HEPA vacuum. Call your local or state health department to ask.
- If you find an area of mold greater than 15 square feet, it's best to hire a professional to get rid of it. (You can find them listed in the telephone book under "Fire and Water Damage Restoration.")
- Clean up mold with a mix of laundry detergent or dishwashing soap and water OR chlorine bleach with soap and water. Do not mix chlorine bleach with any product that contains ammonia.
- If you think mold may be causing you or your family health problems, see a doctor.

**How do I Clean Up Mold?**  
 Protect yourself when cleaning up mold. Wear long sleeves and pants, shoes and socks, rubber gloves, and goggles to protect your eyes. Open a window to let in fresh air while you're working.

Throw away things like carpets or mattresses, wallboard (drywall), ceiling tile, insulation, and cardboard boxes that have been wet for more than two days. Wrap anything you're going to throw away in plastic to stop mold from spreading. Cleaning up mold puts the spores in the air so it's a good idea to wear a respirator. Keep small children, elderly and sick people, and anyone with allergies or asthma away during cleanup.



### Information for clients (page 20):

- Use a HEPA vacuum after cleaning up mold.
- If mold is greater than 15 square feet, hire a professional.
- Clean up mold with laundry detergent or dishwashing soap and water or bleach with soap and water.
- Protect yourself when cleaning up mold.



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## Using *Help Yourself to a Healthy Home* as a Client Resource

**Mold & Moisture**

**ACTION STEPS, continued**

Clean hard surfaces with a mix of laundry detergent or dishwashing soap and water. You may have to scrub with a brush. Rinse the area with clean water and dry quickly by wiping away the water and using a fan. Chlorine bleach will kill mold growing on surfaces. It does not kill mold spores in the air and dead mold can still cause allergic reactions. If you use bleach, follow these steps:

- Scrub the surface first with water and detergent.
- Water down the chlorine bleach—use about one cup of bleach to ten cups of water.
- Spray or sponge the bleach on the moldy area. Leave it on about 15 minutes, then rinse the area and dry quickly.
- Never mix chlorine bleach with products that contain ammonia or acids because you will make a deadly gas.
- Keep chlorine bleach out of the reach of pets and children.
- Remember, chlorine bleach takes the color out of most fabrics and rugs. Be careful not to spill or splash.

The Cooperative Extension Service or your local or state health department can provide more information on mold. Restorers should talk to their landlords. Some home insurance policies will pay to fix mold damage. Fire and water damage restoration professionals can help you fix the damage. Cleaning on a big mold problem may cost several thousand dollars or more.

**What About Testing for Mold?**  
 You may have heard about so-called toxic molds that can cause severe health problems. This may cause worry if you know that mold is growing in your home. See your doctor if you think mold is causing health problems for you or your family. Many experts agree that health problems come from the length of time you've been in contact with the mold and the amount of mold in your home than the type of mold in your home.

No matter what kind of mold you have, you need to get rid of it and fix the moisture problems that made it grow. Most experts think it's better to spend your time and money on cleaning up the problem than on testing. So act quickly to get rid of the mold and moisture by following the Action Steps in this chapter.



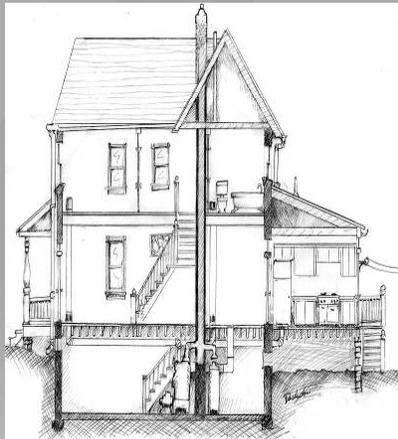
### Information for clients (page 21): Specific instructions and cautions for using bleach to clean up mold.



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## 7 Healthy Homes Principles



### Keep It:

1. Dry
2. **Clean**
3. Ventilated
4. Pest-Free
5. Safe
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7. Maintained



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## Why do we want homes that are clean and easily cleanable?

- Less contact with:
  - Dust mites, mold, mice/rat/cockroaches
  - Pesticides
  - Heavy metals such as lead
- Less places for pests like mice and cockroaches to hide



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## Dust Mites

Homes with high humidity can have a lot of dust mites. With a drier house, dust mites are limited to things like blankets, pillows and stuffed toys.



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## Tracking In Dust

- Five steps to limit tracked in dust
  - Hard Surface Walkways
  - Outside Grate-Like Mat
  - Inside Carpet Pad
  - Hard Surface Floor
  - Take shoes off



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## Healthy Cleaning

- Don't dry dust or dry sweep
- Vacuuming carpets:
  - A good vacuum will have a beater bar
  - The best type of vacuum to buy is a HEPA vacuum
  - Be sure to vacuum very slowly (or use vacuum with dirt finder)
- Wet cleaning:
  - Use "elbow grease"
  - Change water frequently



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## Dust mite control

- Hot water
- Dehumidifiers



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## What cleaning measures are problematic?

- Soaps and other products that are anti-bacterial
- Air fresheners
- Carpet cleaning



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## Clutter

- What's the problem?
- What's the solution?



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## Keep It Clean – What You Can Do

### If you rent or own

- Vacuum or wet clean floors.
- Use a damp cloth for dusting.
- Wash bed linens every 1-2 weeks in hot water.
- Use a walk-off mat outside of your door.
- Take your shoes off at the door.
- Use “green” cleaning products.
- Invest in a good HEPA vacuum that has a beater bar on the bottom and can be emptied quickly and thoroughly.
- Use plastic boxes to store clutter.
- Use allergen-free mattress and pillow covers as part of an effective cleaning strategy for children with asthma or allergies.

### If you rent, your landlord should:

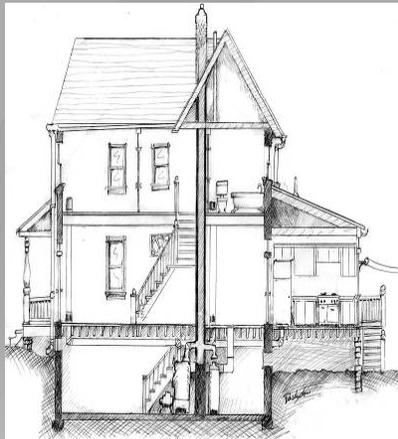
- Help with pest problems by sealing cracks and holes
- Consider hard surface floors that show dust more clearly, can be cleaned faster and can be damp mopped.



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## 7 Healthy Homes Principles



### Keep It:

1. Dry
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## What does Ventilate Mean?

- Ventilating means that fresh air is circulating in the house
- It also means that the house has openings for pollution to escape from inside
- If any portion of air leaves a house the same amount must enter
- Air can be hot, cold, wet, dry, or polluted when it enters or exits a house



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## Why Well Ventilated?

Good ventilation reduces hazards from:

- Moisture
- Smoke from cigarettes, cigars, incense or candles
- Allergens (such as cockroach and mice droppings)
- Mold
- Carbon monoxide
- Volatile organic compounds (VOCs)
- Radon



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## Why Well Ventilated: Related Health Effects

- Higher rates of respiratory irritation and illness in housing with poor ventilation
    - Common colds
    - Influenza
    - Pneumonia
    - Bronchitis
- ... and increased rates of absence from school or work



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## Things that need exhaust ventilation

- Bathrooms
- Clothes dryers
- Kitchen ranges
- Boilers, furnaces, hot water heaters
- Fireplaces, wood burning stoves



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## Testing an Exhaust Fan: The Tissue Method



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## Local Ventilation in the Kitchen

- Kitchen ventilation removes moisture and odors
- Also removes carbon monoxide from gas ovens or ranges
- Gas ovens or ranges must vent to the outside
- Fans for gas ovens or ranges must be reasonably quiet so people will use them.



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## Carbon Monoxide

- Gas stoves or furnaces can give off carbon monoxide. Maintain them properly.
- Charcoal grills, gas-fueled space heaters, or portable kerosene heaters used inside can give off carbon monoxide. NEVER use these inside.

### Health Effects

- Fatigue, headaches, dizziness, confusion
- The “Silent Killer”
- 500 deaths a year plus more than 15,000 healthcare visits per year.



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## Carbon Monoxide Alarms

- A carbon monoxide alarm should be placed near sleeping area
- Can be put on every level of a home to provide extra protection
- Should not be installed directly above or beside fuel-burning appliances



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## Keep It Ventilated – What You Can Do

### If you rent or own

- Use exhaust fans when cooking or bathing and check that they work properly.
- Install a carbon monoxide alarm.
- Check that smoke and carbon monoxide alarms work properly. Replace batteries twice a year.
- **Never** use charcoal grills inside.
- Open a window if you use unvented kerosene or gas heaters.

### If you rent, your landlord should:

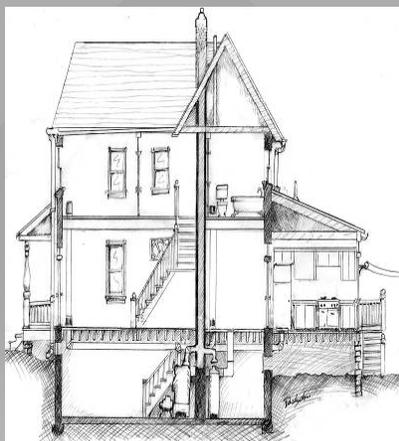
- Have bathroom and kitchen exhaust fans that vent outside.
- Install smoke and carbon monoxide alarms.
- Maintain furnaces
- Have dryers vent outside and keep vents unclogged.



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## 7 Healthy Homes Principles



### Keep It:

1. Dry
2. Clean
3. Ventilated
4. **Pest-Free**
5. Safe
6. Contaminant-Free
7. Maintained



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## What do we mean by pests?

- Rats and mice
- Roaches
- Fleas
- Bedbugs
- House flies
- Mosquitoes
- Dust mites
- Regional pests



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## Pests cause problems

- Trigger/cause asthma and allergies
- Bite
- Contaminate food
- Lead people to overreact and ignore pesticide labels
- Transmit disease
- Hitchhike in belongings



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## Why Pest Free?

Health effects associated with pesticides include:

- Eye, nose, throat irritation
- Skin rashes, stomach cramps, nausea
- Central nervous system damage
- Kidney damage
- Increased risk of cancers



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## Illegal and Risky Pesticides

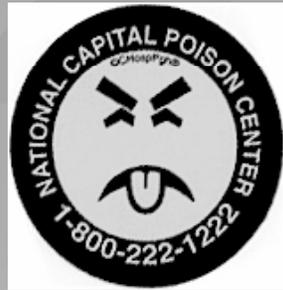
- Pesticides that look like candy
- Insecticide chalk  
(aka Miraculous or Chinese chalk)
- “Tres Pasitos”



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## Pesticides and Poisonings



Almost half of all households with children under five stored pesticides within reach of children.

In 2003, Poison Control Centers reported 113,000 cases of pesticide poisoning.

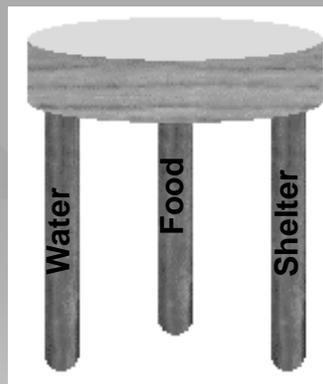


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## What all pests need

- Food
- Water
- Shelter



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## Getting in from the outside



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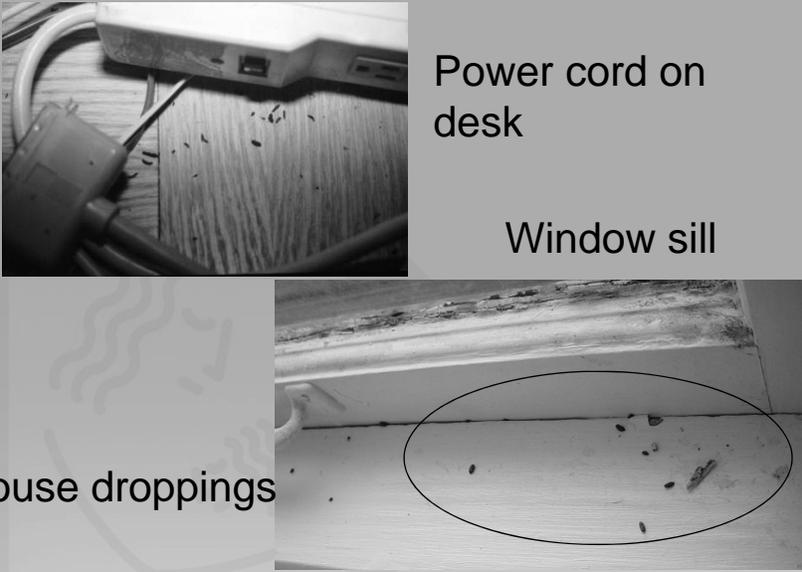
In this picture, rat  
proofing did not  
work

**Rat burrow**



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Power cord on desk

Window sill

Mouse droppings



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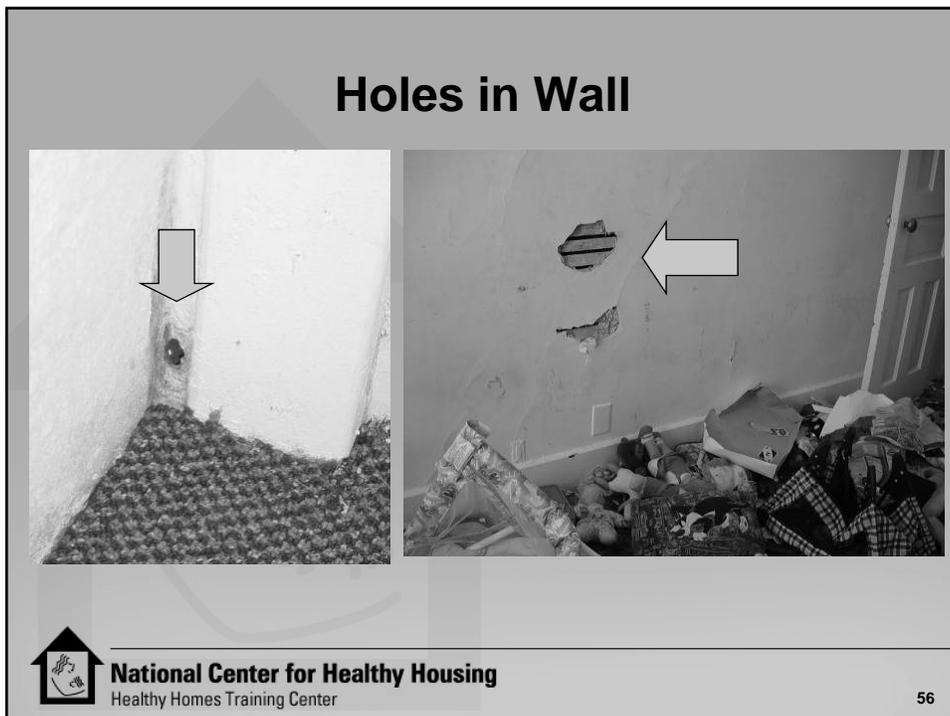


Cockroaches



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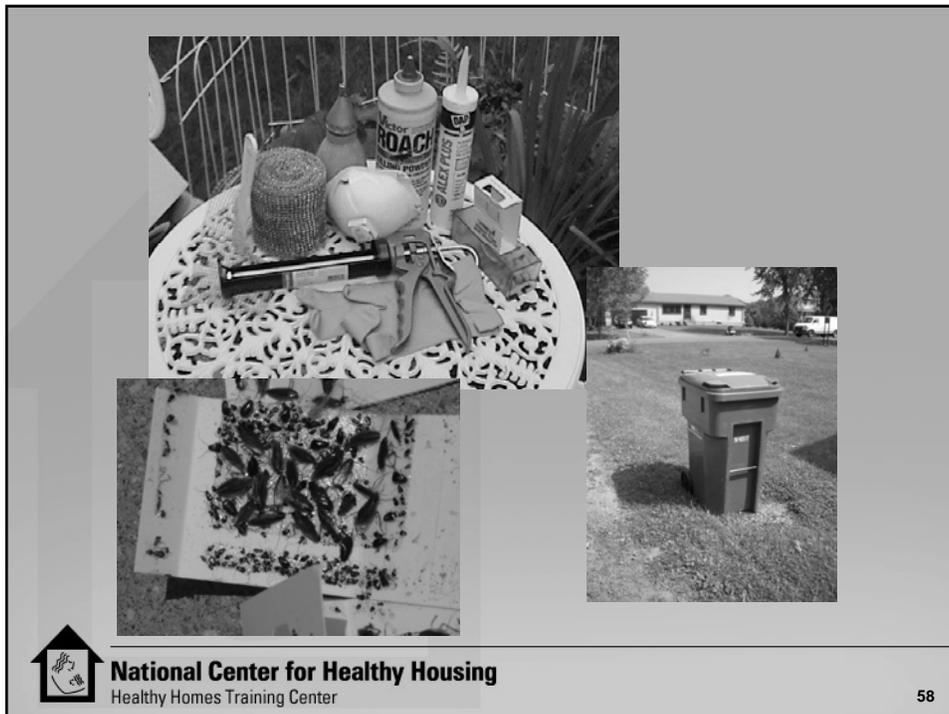
## What is IPM?

- **Integrated:** Use different approaches that work together (for example, cleaning up food spills, sealing up holes underneath cupboards, using baits)
- **Pest:** Cockroaches, mice, rats
- **Management:** No more cockroaches, mice or rats



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## What To Do About Pests: Cleaning

- Get rid of food sources and grease
- Vacuum
  - Hard to reach locations and places pests like to hide
  - Vacuum from top to bottom
- Wash hard surfaces and floors
  - De-grease oven and stove
  - Two-bucket method
  - Restrict water distribution
  - Spray-bottle application



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## What To Do About Pests: Better Storage

- Food: Store in containers that pests can't get into or find it hard to get into
- Other household items: Store in an organized fashion so that any pest activity can easily be seen
- Clutter: Reduce or get rid of stored items that aren't really needed



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Pest proof food storage



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## Keep It Pest-Free – What You Can Do

### If you rent or own

- Contact your landlord right away about pest problems.
- Clean up food or crumbs.
- Wrap food and put it in the refrigerator, or in a cabinet if tightly sealed.
- Do not leave dirty dishes out overnight.
- Sweep, mop, and vacuum regularly.
- Take garbage to the trash area at least once a week (or every day if you have pests).
- Clean up clutter that provides hiding places for pests.
- Minimize pesticide use. If you use pesticides, make sure to follow the directions on the label.
- Don't use sprays or foggers.

### If you rent, your landlord should:

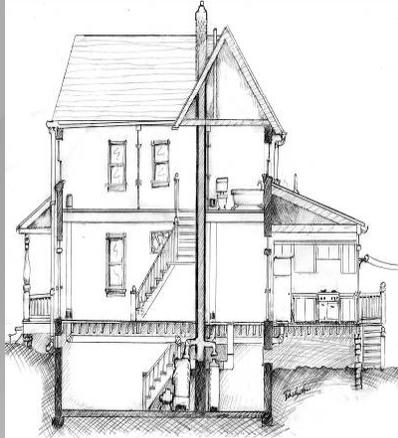
- Seal holes in walls, floors and ceilings to prevent pests from coming in.
- Use baits, traps, or gels to kill pests.
- Repair water leaks or damage.



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## 7 Healthy Homes Principles



### Keep It:

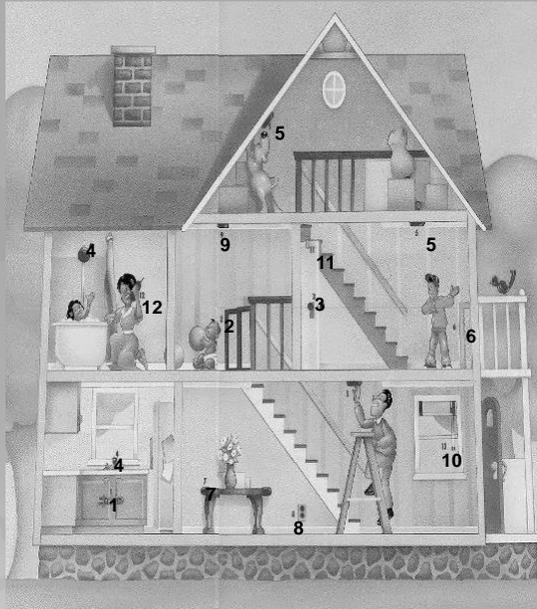
1. Dry
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**Keep it Safe:**  
There are many ways to be injured in the home



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## What are the most common causes of home injury deaths?

1. Falls (particularly for the elderly)
2. Poisoning
3. Fires and burns
4. Choking and suffocation
5. Drowning
6. Guns
7. Other



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## Which age groups are most at risk?

- Infants are most likely to be injured or die from choking and suffocation.
- Children up to 14 years old and seniors are most likely to be injured from falls.
- Children from 1 – 14 years old are most likely to be injured by fires and burns.
- Adults who are over 80 years old are most likely to die from any injuries in the home.



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## Falls

About 1/2 of households with 2<sup>nd</sup> floor windows do not have window locks or safety guards to protect children.



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## Poisoning



■ 82% of households keep medicines in unlocked drawers or cabinets.

■ 69% of homes with young children store household chemicals in unlocked areas.



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## Do these pictures show good storage for dangerous products?



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## Fires and Burns



75% of households do not know the temperature setting on their water heaters.

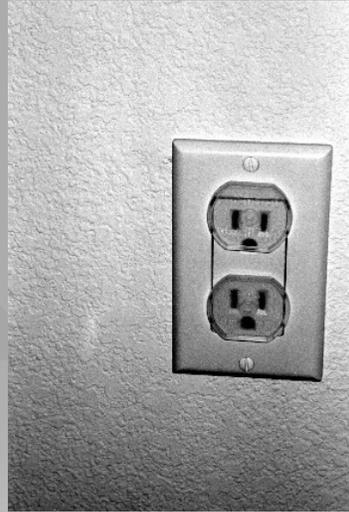
91% are unaware of the temperature of hot tap water.



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## Choke hazards?



## Electric shock hazard?



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## Keep It Safe – What You Can Do

### If you rent or own

- Keep floors clear of things that may cause tripping.
- Clean up spills to prevent slipping.
- Use non-skid mats and throw rugs.
- Put safety latches on cabinets and drawers with harmful products – or put products where children can't reach.
- Put a working smoke alarm near every sleeping area. Put a working fire extinguisher near the kitchen stove.
- Keep space heaters out of busy areas and away from things that could catch fire.
- Put outlet covers over unused outlets.
- Keep young children away from curtains, window-blind cords and extension cords.

### If you rent, your landlord should:

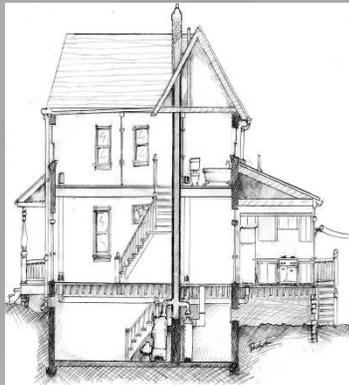
- Install smoke alarms near sleeping areas.
- Install a carbon monoxide alarm.



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## 7 Healthy Homes Principles



### Keep It:

1. Dry
2. Clean
3. Ventilated
4. Pest-Free
5. Safe
6. **Contaminant-Free**
7. Maintained



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## Contaminant Buying Decisions

### Intentionally Bring In

- Tobacco Smoke
- Pesticides
  - Sprays, Baits & Powders
- Volatile Organic Comp.
  - Air Fresheners & Cleaning Products
  - Glues, Sprays & Coatings
  - Building Materials
- Mercury
  - Thermostats & Fluorescent Lamps
- Asbestos
  - Building Materials
- Meth Labs

### Along for the Ride

- Bedbugs and Mice
  - Used Furniture & Mattresses
- Cockroaches
  - Cardboard Boxes & Furniture
- Mice
  - Boxes and Furniture
- Formaldehyde
  - Pressed Wood Products
- Lead
  - Used Building Supplies



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## Environmental Tobacco Smoke



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## Why Avoid Tobacco smoke: Related Health Effects



- Increases the number of episodes and severity of symptoms for children with asthma
- Risk factor for new cases of asthma in children
- Responsible for 150,000 to 300,000 lower respiratory tract infections – such as bronchitis and pneumonia - in infants and children less than 18 months of age



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## What Can You Do About Tobacco Smoke in Homes and Cars?

- Quit, if you're ready there's help
- Don't smoke around children
- Smoke outside
- Exhaust vent the places where people smoke



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## Volatile Organic Compounds

- Air Fresheners
- Cleaning Products
- Sprays & Coatings
- Formaldehyde
- Carpets
- Vinyl Floors
- Drywall
- Hobbies
- Home Maintenance



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## Why Avoid VOCs?

Potential health effects of VOCs:

- Eye, nose, throat irritation
- Headaches, nausea, coordination
- Liver, kidney, and brain damage
- Some can cause cancers
- Child development



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## Reduce Potential Sources

- Don't use it if you don't have to.
- If you have to use something with VOCs, use a product that has low VOCs, is less likely to irritate, less likely to react with other chemicals or be hard to maintain.
- If you do use products with VOCs, be sure to open doors and windows to ventilate



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## Keep It Contaminant-Free – What You Can Do

### If you rent or own

- Don't smoke in the house.
- Don't smoke around children.
- Avoid using products that have high levels of volatile organic compounds.
- If you do use a product with VOCs, make sure to have fresh air circulating.

### If you rent, your landlord should:

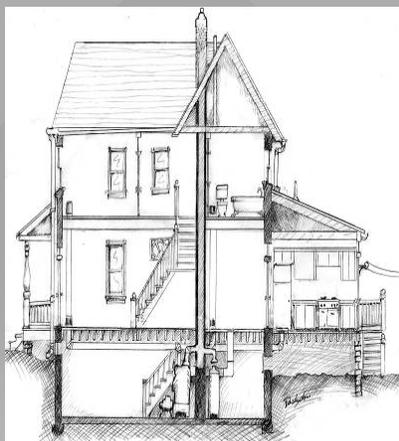
- Use low VOC paints, carpets, adhesives and other products when renovating.
- Make sure that any no smoking rules are followed.



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## 7 Healthy Homes Principles



### Keep It:

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7. **Maintained**



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## Contaminant & Maintenance

### Legacy Toxics

- Lead-Based Paint
- Asbestos
  - Siding
  - Plaster
  - Insulation
- Chromated Copper Arsenate Wood
- Mercury
  - Thermometers & Fluorescent Lamps
- Pesticide Residues

### Created or Grown

- Cockroaches
- Mice and Rats
- Mold
- Carbon Monoxide
- Sewer Gas

And Then There is  
Radon



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## Maintenance

- Solid waste
- Water supply
- Sewer system
- Heating/cooling/dehumidification/humidification
- Cooking
- Ventilation
- Rainwater control/drainage
- Structural integrity
- Storage / Organization



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## Maintenance Actions

- Inspect
- Clean
- Lubricate
- Replace
- Repair
- Organize



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How's the filter? A clogged low efficiency filter partially sucked out of the frame.



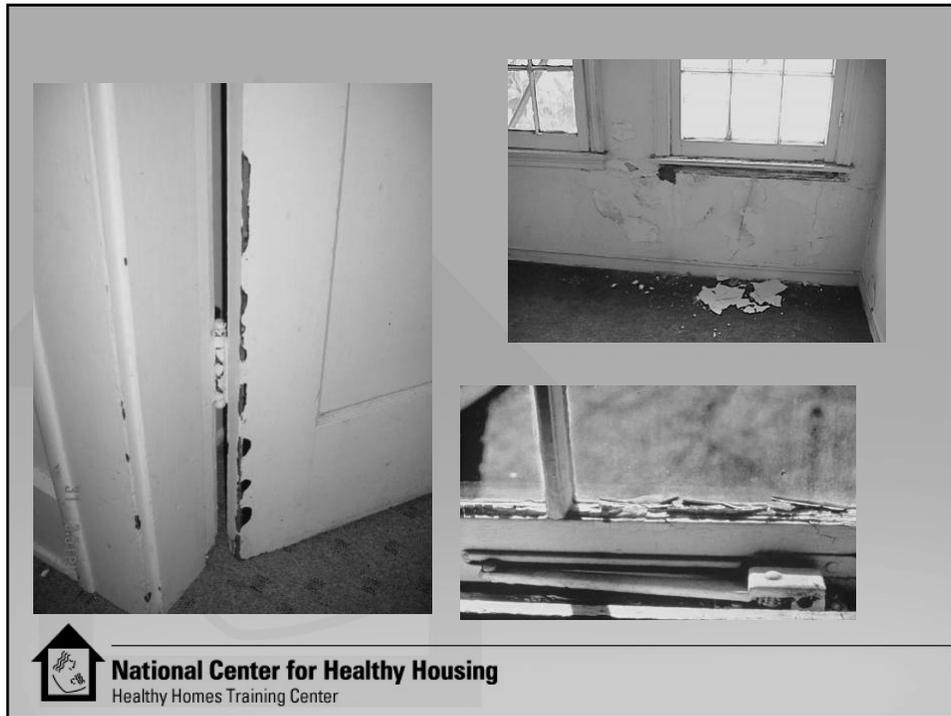
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## Lead and Lead-Based Paint

- Peeling, Chipping Paint / Deteriorated Paint
- Dust
- Soil
- Drinking water
- Consumer Products such Pottery, Cribs, Jewelry, Candle Wicks
- Cultural Items
- Contaminated Sites



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## Why Avoid Lead?

- Reduced IQ
- Learning disabilities
- Impaired hearing
- Reduced attention spans, behavior problems
- Anemia
- Kidney damage
- Damage to central nervous system
- Coma, convulsions, death

## Lead: Age of Housing Matters

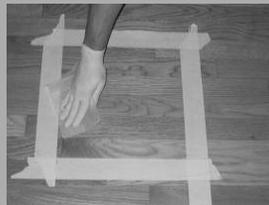
| Year House Was Built | Percent of Houses with Lead-Based Paint |
|----------------------|---|
| Before 1940          | 87 percent                              |
| 1940-1959            | 69 percent                              |
| 1960-1978            | 24 percent                              |
| All US Housing Stock | 40 percent                              |



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## Available Testing

- Paint chip
- Dust - Clearance testing
  - 40 micrograms of lead per square foot on floors
  - 250 micrograms of lead per square foot on window sills.
- Bare soil
  - 400 ppm in play areas
  - 1200 ppm in other areas
- Drinking water



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# Asbestos



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## Why avoid asbestos?

- Health effects:
  - Lung Cancer
  - Mesothelioma
  - Asbestosis
- Smokers are at greater risk!

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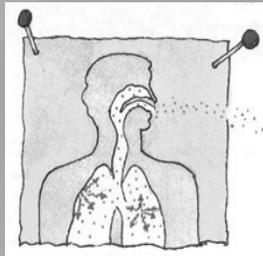
## How to handle asbestos

- LEAVE IT ALONE (if in good condition).
- Look for signs of wear or damage such as tears, abrasions, or water damage but avoid touching the material.
- If damaged or renovation might disturb it, repair or removal by a licensed professional is needed.



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## Radon – A Serious Health Concern

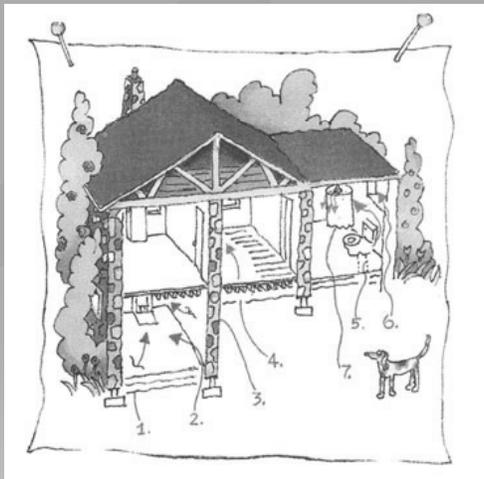


- Radon is a naturally occurring gas produced by the breakdown of uranium and radium in ground.
- Radon
  - 2<sup>nd</sup> leading cause of lung cancer after smoking with more than 20,000 deaths annually
  - Leading cause of lung cancer in nonsmokers and people who have never smoked.



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## How Radon Gets into a Home



1. Cracks in solid floors
2. Construction joints
3. Cracks in walls
4. Gaps in suspended floors
5. Gaps around service pipes
6. Cavities inside walls
7. Other openings
8. Water supply



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## Testing for Radon

### Testing Options:

- For kits call 1-800-SOS-RADON, purchase retail, or from certified company
- Hire a professional



**Radon Data Card**  
(Write Comments on Back)

In order to Analyze test, all information must be filled out completely.  
Please Print (Circle Color Radon Kit Color No. on Kit)

Name John Smith Phone 123 456 7890

Address 12345 Main St., Apt. 100 County Smith

City Springfield State IL Zip 62701

Room Used For Testing Room Basement Other \_\_\_\_\_

Room Level Basement 1st Floor 2nd Floor 3rd Floor

(Single-Cap Method) Date 1/15/10 Time 10:00 AM (Dual-Term)

(Single-Cap Method) Date 1/15/10 Time 10:00 AM (Dual-Term)

If testing address differs from mailing address please enter below:  
12345 Main St., Apt. 100  
Springfield, IL 62701

ATTN: RGLP



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## Resources

- State Radon Contacts  
—[www.epa.gov/iaq/whereyoulive.html](http://www.epa.gov/iaq/whereyoulive.html)
- Coupons for Test Kits 800-SOS-RADON (767-7236)
- Radon Mitigation 800-644-6999
- Other Questions 800-55RADON (557-2366)
- IAQ Questions 800-438-4318



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## Keep It Maintained – What You Can Do

### If you rent or own

- Call your landlord as soon as you notice moisture, pests, or holes.
- If your toilet overflows report it to your landlord immediately.
- If you own, replace furnace filters on a regular basis.
- Clean the grease filter on your stove's range hood.
- In the spring and fall, check gutters and downspouts for clogs caused by leaves.
- Watch for freezing pipes that crack and leak. Fix if you own. Contact your landlord if you rent.
- Test children under age 6 for lead exposure.
- If your home was built before 1978 and paint is peeling or flaking, have it tested for lead.
- Before remodeling work, check for lead-based paint.

### If you rent, your landlord should:

- Fix leaks or water damaged areas.
- Fix all cracks and holes.
- Help get rid of pests.
- Maintain furnaces in good condition and replace filters on a regular schedule.
- Check gutters and downspouts for clogs caused by leaves.
- Fix pipes that have frozen, cracked and leaked.



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