

What Makes a Healthy Home?

A Guide for Indiana Residents

Based on the 8 Principles
of a Healthy Home



Indiana State
Department of Health
Lead and Healthy Homes Division

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Indiana State
Department of Health



Introduction

What is a Healthy Home?

A “healthy home” is one that is designed, constructed, and maintained to support our health. There is a strong link between health and housing. To better understand a “healthy home”, the U.S. Housing and Urban Development (HUD) established the “8 Principles of a Healthy Home.”

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

-Florence Nightingale

Why is a Healthy Home Important?

A healthy home is important because most people spend at least half of every day inside their homes. If you are spending time in a healthy home, you can reduce illnesses. Your home should not be making you sick. It is important to understand what things in your home are hazards, or can cause danger to your health.

Want a Healthy Home?

Learn about the connection between health and housing and get tips about how to be a safe and healthy Indiana resident.

What this Guidebook Offers:

- An overview of each of the “8 principles of a healthy home”
- Action steps for making your home healthy
- Recommended tasks for both landlords and tenants
- Fun facts and additional resources

The 8 Principles of a Healthy Home

Keep It Dry	Keep It Safe
Keep It Clean	Keep It Contaminant Free
Keep It Pest-Free	Keep it Maintained
Keep it Ventilated	Keep it Temperature Controlled

How do I know if I have a healthy home?

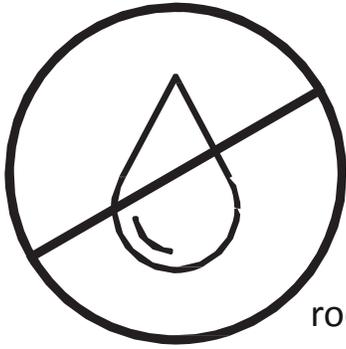
A hazard is something that causes harm to yourself or others. Preventing hazards can mean preventing illnesses or injuries.

Below are questions you can ask yourself to make sure your home is healthy. **Click** directly on each question to be directed to the appropriate section of this guidebook.

- 1. Does my home have pooled or standing water? (pg 5)**
- 2. Is there too much moisture or mold growing in my home? (pg 5)**
- 3. Is my bathroom and kitchen ventilating air properly? (pg 11)**
- 4. How can I eliminate excessive dust in my home? (pg 7)**
- 5. Am I changing your furnace filter frequently? (pg 18)**
- 6. Are there strong odors coming from my home? (pg 8)**
- 7. Have you seen rodents or insects in your home? (pg 9)**
- 8. Do you have a fire escape route planned in case of a fire? (pg 16)**
- 9. Are you planning to repair a home with possible asbestos? (pg 17)**
- 10. Do you want to learn about safe chemicals and green cleaning? (pg 8)**
- 11. Do you have a working smoke and carbon monoxide detector? (pg 12)**
- 12. Have you had your home tested for radon? (pg 13)**

Please note: If you are using the electronic version of this guidebook, you can search this document for a specific topic by clicking CTRL + F.





Keep it **Dry**

Water can drip into your home through holes in the roof, cracks around the foundation and plumbing leaks. Water can also enter from gutters and downspouts, that don't direct water away from the house. Also it is important to check for condensation on the surfaces of windows and doors. Measure the amount of water in the air using a humidity meter. In Indiana, the ideal humidity in your home should be about 35-50%.

How Can You Do It?

- Fix plumbing leaks – pipes and fixtures, like faucets
- Remove pooled or standing water
- Fix leaks in roof or around foundation
- Gutters and downspouts drain water away from the house
- Use dehumidifier as needed
- Bathroom and dryer vents outside
- Use exhaust fan when showering or cooking

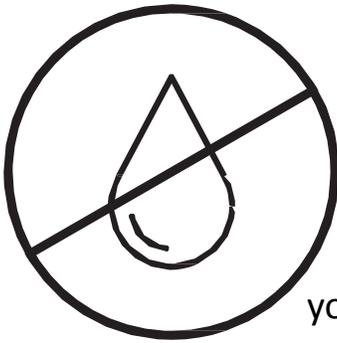
Why?

Homes with excess moisture and leaks can:

- Promote mold growth
- Attract unwanted pests
- Affect respiratory health
- Degrade lead-based paint and wood furniture

Where Does Mold Come From?

Mold starts as a small spore that can be found outside. These spores can enter into your home through doors and windows. Once they are inside, the spores attach to clothing, walls, animals and even people. When there is too much moisture in the environment, these spores begin to grow into fungus —called mold.



Keep it **Dry**

Too much moisture in a home can cause mold. Mold can make you sick if you have asthma. There are many steps you can take to keep your home dry. When moisture problems occur in rental properties, conflicts may occur when trying to correct them. You should immediately notify your landlord when you notice moisture problems, such as leaky plumbing fixtures, stains, mold etc. Give your landlord the opportunity to fix any leaks before contacting your [local health department](#).

Asthma Impacts in Indiana

It is important to keep your home free of mold so you can reduce the risk of an asthma attack. Asthma is a disease that affects your lungs. It can cause wheezing, chest tightness, and coughing. Asthma can occur if you are exposed to mold, strong smells or extreme temperatures. **In Indiana, 650,000 Hoosiers have asthma. In 2014, 7,091 Hoosiers were hospitalized due to asthma.**

Let's work together

Landlords	Tenants
Regularly inspect plumbing fixtures, gutters and downspouts, and roof to prevent leaks	Communicate plumbing, window, doorway or other water leaks to landlord immediately
Ensure that all fans are in proper working order and are ventilated outside of property (bathroom, stovetop, laundry room)	Use fans when bathing & showering, doing laundry, cooking, if possible leave the fan running for an additional 20 mins
Ensure proper maintenance and use of dehumidifier	Identify areas that may be damp (humid) and use dehumidifier

Keep it Clean

Common contaminants in homes include, dust, lead, pesticide residue, chemicals, dust mites and pest droppings. Keeping your home clean by reducing hazards is not only beneficial for your physical health but also may help relieve stress.



Fun Fact: Dust mites are little white bugs with 8 legs! They are the most common trigger for asthma and allergies.

How Can You Do It?

- Reduce clutter
- Clean with a damp cloth or micro-fiber cloth to trap dust
- Remove shoes to prevent dirt from entering the home
- Pick up trash and put it in trash can
- Clean carpets with HEPA filter vacuum weekly (shampoo once a year)
- Vacuum upholstered furniture monthly
- Wash bed sheets at least twice a month

4 Tips to Reduce Household Dust

1. Use hard surface walkways outside your home i.e. cement or brick paths, instead of dirt paths
2. Have an outdoor mat at each entrance to the home
3. Use inside mat at each entrance of the home
4. If possible, do not use carpet, instead use hard surfaced floors.

Keep it Clean



You might be surprised to learn that some of the most basic, inexpensive ingredients – many of which you might already have in your home – can be mixed into natural cleaning solutions that will eliminate dirt, germs, and grease. Click here for [green cleaning recipes!](#)

Let's work together

Landlords	Tenants
Use “green” (chemical-free) lawn treatment whenever possible	Clean with wet or microfiber cloth and use green cleaning recipes to make natural cleaners
Deep clean (shampoo) carpet at least once a year	Use a HEPA filtered vacuum frequently

Air fresheners may smell good, but they only mask strong odors. They can often times use artificial fragrances which can be harmful to your health. Instead of masking up strong smells with chemicals, there are more natural alternatives to eliminating smells. [Click here](#) to make your own natural air freshener.

An easy do it yourself (DIY) all purpose cleaner can be made with just three ingredients!

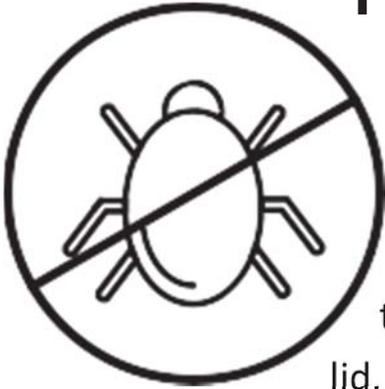
- 2 cups water
- 1/2 cup white vinegar
- 1 tsp. dish soap

Mix together in a spray bottle. Spray on any surface and wipe clean with a cloth.

DO IT
YOURSELF



Keep it Pest-Free

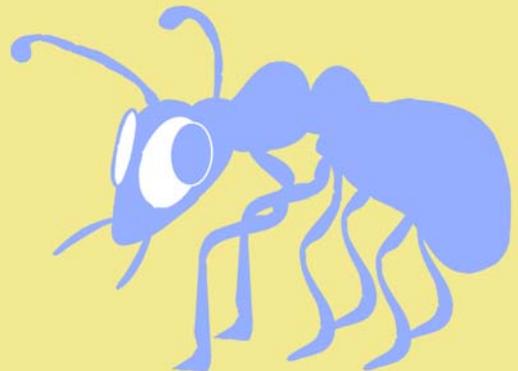


Roaches and rodents can trigger asthma and allergies. They need food, water and shelter to survive. Control roaches, rodents, and other pests by making these things hard to get. For example, use a trash can with a lid, and empty it frequently. This will discourage pests from living in your home. Traditionally, pesticides are used to rid our homes of these pests. However, pesticides can be harmful to our health because many of them use harsh chemicals. Instead, prevent pests by identifying and eliminating food and shelter sources. The most common way to remove pests is by using baits and traps. This idea is also known as Integrated Pest Management or IPM.

DID YOU KNOW?

Integrated Pest Management (IPM)

- IPM focuses on long-term prevention of pests or their damage by managing the environment
- Traditional pest control involves the routine application of pesticides. IPM, in contrast:
 - Focuses on pest prevention
 - Uses pesticides only as needed
 - This provides a more effective, environmentally sensitive approach





Keep it **Pest-Free**

How Can You Do It?

- Clean up crumbs and spills right away
- Empty your garbage often
- Wash your dirty dishes right after eating
- Don't leave out pet food or water overnight
- Fix plumbing leaks and drips
- Vacuum frequently, preferably with a HEPA vacuum
- Eliminate clutter, where pests may hide
- Fill holes and cracks in windows, doors, and the foundation of the home

Fun Fact: Mice can squeeze into holes the size of a dime!

10¢

Let's work together

Landlords

Seal cracks, holes, or openings to the outside in and around your home

Remove items from the yard that can collect water to prevent mosquito breeding sites

Tenants

Keep food stored in the original container until opened, then transfer to re-sealable containers

Check any used or donated furniture and luggage upon returning from a trip for bed bugs





Keep it Ventilated

How Can You Do It?

- Ventilate bathrooms and kitchens when in use
- Make sure dryer and bath fan exhaust are ventilating outdoors
- Use your HVAC system to circulate air through your home
- Use fans to improve circulation of air

DID YOU
KNOW?

HVAC stands for heating, ventilation and air conditioning. HVAC systems are important in monitoring temperatures in your home.

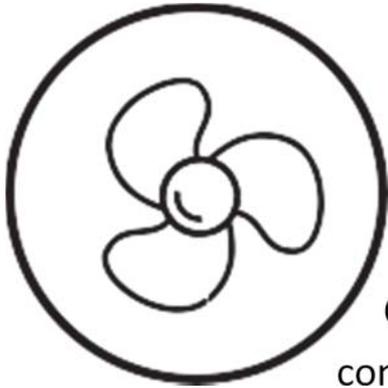
It is important to have a well-ventilated home because ventilation prevents mold growth and the build up of strong odors and pollutants.

Why?

Pollutants can be found in concentrations **2-5 times higher** indoors than outdoors.

They include:

- Volatile organic compounds (VOCs) such as paint fumes
- Radon
- Tobacco smoke
- Allergens, like pollen
- Mold
- Carbon monoxide

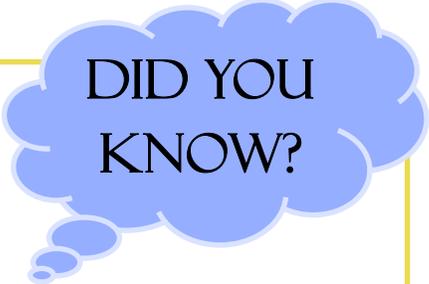


Keep it Ventilated

Carbon Monoxide a.k.a. the “Silent Killer” is a contaminant you should be aware of. Often times symptoms are not noticeable but can cause headaches, dizziness, confusion and shortness of breath. On average, **24 individuals** in Indiana die annually from carbon monoxide exposure.

Sources Include:

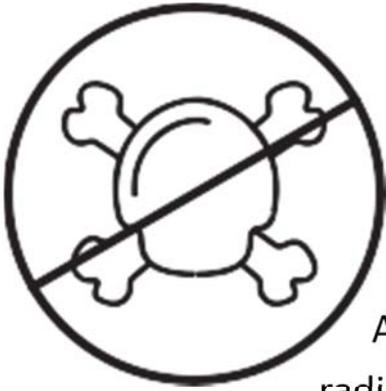
- Using a gas stove/oven to heat your home
- Poorly vented furnace, water heater, fireplace
- Unvented space heater or fireplace
- Car exhaust from attached garage



Carbon monoxide alarms protect against life threatening conditions! It is important your home has one. Place the alarm near sleeping areas and on every level of the home for extra protection.

Let's work together

Landlords	Tenants
HVAC filter replaced as recommended by manufacturer	Use fans to ventilate air
Gas appliances (stove, furnace, water heater, fireplace insert, etc.) are vented properly.	Open windows (with screens) to allow fresh air into the home



Keep it Free of Contaminants

A contaminant is a physical, chemical, biological or radiological substance in our water or air. Some examples of contaminants include **tobacco smoke**, **pesticides** and **lead-based paint**.

Asbestos is another contaminant that can be found in floor tiles and insulation in some homes. Also, it is important test your home for radon.

Radon is a naturally occurring dangerous gas that enters homes through soil, crawlspaces, and foundation cracks. Install a radon removal system if levels above the EPA action-level are detected. It is estimated that radon causes about **20,000 deaths** from lung cancer each year.



Common hobbies that can have contaminants:

Painting
Stained glass
Pottery
Woodworking

These hobbies can often time release strong fumes or chemicals. It is important to wear personal protective equipment (PPE) to keep yourself safe and healthy during your hobbies.

Types of Contaminants

- Lead-Based Paint
- Tobacco Smoke
- Radon
- Asbestos
- Pesticides
- Volatile Organic Compounds (VOCs)



Keep it Free of Contaminants

What's the Deal with Lead?

Major sources of lead exposure for Hoosier children include lead-based paint and lead-contaminated dust in older buildings. These can be homes that children live in or regularly visit, like a childcare center. Children can also be exposed to lead from other sources, including contaminated drinking water, including leaded water lines, lead in soil, and residue on clothes or other items from a parent or guardian's workplace.

Health Effects Related to Lead:

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

In Indiana, 60% of homes were built before 1978—the year lead-based paint was banned. It is easy to test your home for lead. Test kits are available at hardware stores or through your **local health department**.

Let's work together

Landlords	Tenants
If the rental was built before 1978, test the paint and soil outside for lead. If lead is found, talk to your local health department.	Regularly clean areas around windows and entry ways to reduce lead dust
If repairs are being done by a contractor, they should have lead license.	Do not smoke or use e-cigarettes indoors

Keep it Safe



Safety issues in homes include the risk of falls , choking and suffocation, fire burns and poisoning. Lock up dangerous chemicals and keep them out of reach of children. It is critical to have a escape ladder and to talk to children about escape routes in case of a fire. To prevent trips, use non-skid rugs and replace torn carpets. Lastly, keep a first aid kit in your home.



DID YOU KNOW?

In Indiana, slips, trips, and falls are the leading cause of injury related emergency department visits, hospitalization, and death for Hoosiers aged 65 and older. In 2014, 335 older adults died from fall-related injury.

Prevent Slips, Trips, & Falls

- Keep your floors clear of anything that may cause tripping.
- Pick up hazards, such as toys, shoes and magazines.
- Clean up spills right away so people won't slip.
- Repair any stairs that are cracked or worn.
- If there are rugs in your home, use non-skid mats and throw rugs.
- Keep your home well lit so you can see where you're walking at night.

Keep it Safe



In 2017,
there were
55 home fire
fatalities in
Indiana.

Source: U.S. News
Media

Let's Talk Fire Safety!

- Keep a fire extinguisher near the kitchen
- Put in a smoke and carbon monoxide detectors every floor of your home in or near every sleeping area
- Change smoke and carbon monoxide detector batteries when needed.
- Have a fire escape route planned for your family
- Store matches, lighters, and other heat sources in safe places away from children
- Keep space heaters away from curtains, bedding, and clothes, and never leave them unattended
- Don't allow children to play near a stove or grill
- Report gas leaks to your landlord or local fire dept.

Let's work together

Landlords	Tenants
Have working smoke and carbon monoxide detectors	Lock up medicine, chemicals, and weapons
Set water heater temperature no higher than 120°F	Use a non-slip surface in bathtub
All stairs have handrails, no uneven steps, overhead lights, and provide a non-slip surface in bathtub	Stairs should be free from clutter to prevent trips



Keep it Maintained

Keep your home in good repair by checking it frequently for hazards. Inspect appliances, replace batteries, and repair any damage. A poorly maintained home can be harmful to occupant health. Some examples of hazards are: **carbon monoxide leaks, unsafe wiring, water/mold in basement, asbestos, and fire hazards.**

Common repairs you can do yourself:

- 1) Fix dripping fixtures in kitchen and bathrooms
- 2) Replace light bulbs
- 3) Patch holes and cracks
- 4) Replace smoke and carbon monoxide batteries
- 5) Change furnace filter
- 6) Keep gutters free of debris

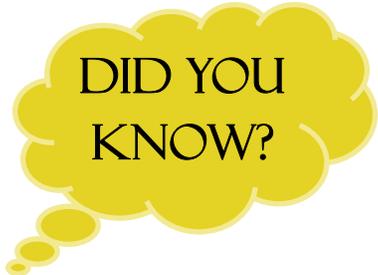
All About Asbestos:

- Asbestos is a type of fiber that was used in building materials from 1900 to 1978. It is considered a hazard because it can cause mesothelioma cancer in the lungs. Common places where asbestos is found include: **floor tiles, insulation, and roofing materials.**
- *Testing your home for asbestos can be done using an asbestos testing laboratory. It is important that you never break off a sample to send to the labs, only use samples that have broken off naturally.*
- **If you find asbestos in your home during renovations, the best thing to do is to contact a licensed professional to get it removed.**



Keep it Maintained

One of the most overlooked home maintenance activities is replacing your furnace filter. It is easy to do and can extend the life of you furnace and air conditioner.



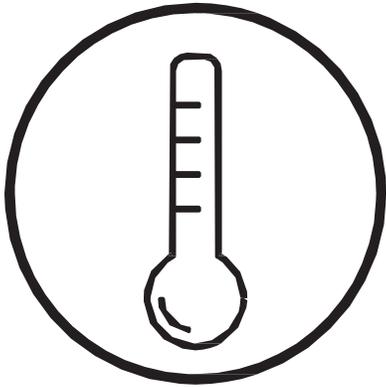
What you need to know about your furnace filter:

- 1) Filters protect your HVAC equipment from dust and dirt, while providing your home with fresh, clean air
- 2) Filters come in different sizes and types. Make sure you purchase the right size filter.
- 3) Check to see if you have multiple furnace filters.
- 4) Change your filter on a regular basis.

Let's work together

Landlords	Tenants
Gutters and downspouts are free of debris and have no holes	Appliances and equipment are inspected and cleaned annually
The unit has no chipping, peeling, flaking or chalking paint (especially if it contains lead)	Floor and shower drains are cleaned annually





Keep it Thermally Controlled

It is important to keep your home at an appropriate temperature for each season. Temperature control in the home can not only help you stay healthy, it can also help you financially. In the summer months, the average household temperature in Indiana is around 75°F, while in the winter the average is 68°F.

What is Weatherization?

Weatherizing means reducing energy costs for households by increasing the energy efficiency of the homes. By using energy efficient appliances, you can lower the cost of your monthly bill. In 2016, over 2,000 Indiana households became weatherized and this saved an average energy savings of 24% (IHCD, 2016).

Let's work together

Landlords	Tenants
Seal cracks around windows and doors, as well as outlets, to prevent drafts of air	Maintain adequate temperatures in the home during summer and winter
Conduct seasonal maintenance on heating, air conditioning and ventilation (HVAC) system	Use energy efficient appliances and lightbulbs

Summary

You probably spend a lot of your time in your home, so it is important that it is safe and healthy. Now that you are familiar with the “8 Principles of a Healthy Home”, you should be able to take the steps necessary to keep and maintain a safe and healthy home. Remember, your health and your home are connected. All Hoosiers have the right to a healthy home. If you have questions please contact your **local health department** or use the resources below:

- **Indiana Healthy Homes Alliance (IHHA)**
- **Indiana Housing and Community Development Authority (IHCDA)**
- **Indiana Community Action Association (INCAA)**
- **National Center for Healthy Housing (INCHH)**
- **US Department of Housing and Urban Development (HUD)**
- **Environmental Protection Agency (EPA)**
- **National Healthy Homes Partnership**

[Click here](#) for a complete healthy homes checklist!

This guidebook is brought to you by the **Indiana State Department of Health**,
Lead & Healthy Homes Division.

For more information and other resources, call us at 317-233-1250



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