



HIAS HOME INSPECTION GUIDE

Ensuring that refugees are moving into safe, healthy homes

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Lead Paint

Background, Risks, and Why You Should Care

Lead paint is any paint that contains lead. The addition of lead results in a paint that dries quickly and is resistant to moisture. Because metal was so cheap and readily available, most houses built before 1978 used lead paint. However, it was banned in 1978 because of the numerous health risk it poses to residents¹. **Inhaling particles of lead dust can cause lead poisoning, resulting in headaches, high blood pressure, nausea, and even permanent brain damage^{1,2}.** In children, it can lead to learning difficulties, weight loss, seizures, vomiting, hearing loss, and more². Recent studies around lead poisoning have found that significant racial disparities exist in rates of lead exposure. Blood lead levels are significantly higher on average for Non-Hispanic Black children than for non-Hispanic white children³. These disparities are closely tied to housing quality. **Black and Hispanic children are more likely to live in residences with peeling paint** (3.5 and 2.4%, respectively) compared to white children (1.9%)⁴. If peeled paint contains lead, infants and children can easily ingest the toxic flakes, increasing their risk for lead poisoning. **As a case manager, it is incredibly important to ensure that a potential residence is lead-free, to help combat housing inequities and be sure that a migrant family is moving into living space that is safe for them and their children.**

Identifying a Residence with Lead Paint

If a house was built pre-1978, it likely has lead paint, although it may have been covered up with layers of other paint. **Lead paint that has been painted over is still dangerous and poses a health risk to residents**, especially if the paint covering it begins to deteriorate and expose the lead paint underneath. When looking for lead paint, look for these common signs:

1. **“Alligatoring”**: Cracking and wrinkling that resembles scales.
2. **Chalky residue** when rubbed off.
 - a. If you believe the lead paint has been painted over, this may be inconclusive. Try finding areas that might still have the original paint, such as closets or baseboards.
3. **Peeling, flaking, or deteriorating paint.**
 - a. Check places where paint experiences lots of wear-and-tear, such as doors and door frames, windows and windowsills, stairs, railings, or banisters.



Figure 1: Lead paint will often rub off on your hands like chalk, a process called chalking. Easily check for lead paint by running a hand against walls or other areas you suspect may have lead paint. Wash your hands thoroughly afterwards.



Figure 2: "Alligatoring" lead paint. This distinct pattern is a result of the oil base in lead paint. Not all oil-based paints are lead paints, but alligatoring is good indicator of lead paint in a residence.



Figure 3: If paint is peeling back to reveal previous layers, especially in an older residence, pay close attention to the layers underneath, they may be lead paint that has been painted over.

Asbestos

Background, Risks, and Why You Should Care?

Asbestos is a general term for a family of cancerous, fibrous minerals. Because of their high strength and heat resistance, they are commonly used in building construction as insulators or fire retardants, as well as in manufactured goods such as ceiling and floor tiles, roofing shingles, and certain cement products^{5,6}.

Exposure to asbestos can cause lung cancer, specifically mesothelioma, and asbestosis, a non-cancerous lung disease^{5,6}. Despite these risks, asbestos is not banned for most uses in the U.S., although it is banned in over 50 other countries. **Once asbestos enters the lungs, it cannot be removed, and as a result it can have life-long, potentially fatal health effects.**

Studies have found that African Americans experience higher rates of occupational asbestos exposure than Whites (6.9% vs. 4.5%)⁷, increasing their risk for lung diseases and cancer. These workers may also bring the toxic material into their homes, increasing the vulnerability of African Americans who do not experience occupational exposure as well⁸. Additionally, asbestos is not well-regulated in Latin American countries, only being banned in six⁸, and as a result many Latino immigrants to the U.S. are not aware of the risks posed by asbestos, making them a vulnerable group as well⁹. Language barriers may prevent immigrant groups from all under-developed countries from learning about the danger of asbestos. **The combination of all these factors makes immigrants, especially those of color, particularly at risk for asbestos related illnesses.**

Identifying a Residence with Asbestos

Asbestos cannot be visually identified, but there are signs of the dangerous mineral in certain products.

1. **Popcorn ceilings:** popular from 1945 to the 1990s, popcorn ceilings from this period almost certainly contain asbestos.
2. **Age of the building:** most properties built **before 1980**, when new legislation limited its use, **will have asbestos somewhere.**

If you suspect asbestos in a property, consider hiring a professional to perform tests. It is also important to educate families on the risks of asbestos, especially when it comes to any home renovation projects.

Electrical Issues & Fire Safety

Backgrounds, Risks, and Why You Should Care

Electricity powers our lives and our homes. There are many pathways for electricity to enter buildings, and serious problems can arise when those pathways are compromised. Electrical mistakes and other issues can pose serious risks for the health and safety of residents and be fire hazards. **Things like exposed wires, especially in areas where children can reach them, can lead to electrocution, while ungrounded receptacles can cause arcing and fire.** It is important to ensure that families are moving into homes where they feel safe and not at risk from electrical hazards.

Exposed wires

Exposed wires can easily be visually identified. Check for exposed wires behind or in appliances or electrical outlets, wires in these areas are hidden and often go unnoticed until they start causing issues. There is no way to visually check if a wire is live (has an active current) so if you find an exposed wire, always assume it is live. **Do NOT touch or attempt to handle the wire yourself**, as live wires can deliver large currents that give you a mild shock at best and can cause cardiac arrest at worst. Exposed wires require the attention of an electrician to be repaired.



Various examples of exposed wiring in a home. Exposed wires are more common in homes that have recently undergone renovation. Check all areas of a residence carefully to ensure there are no exposed wires.

Ground-fault Circuit Interrupters

Ground-fault circuit interrupters (GFCIs) are circuit breakers designed to protect against electrocution in the case of a ground-fault. Federal code requires GFCI outlets in specific rooms of a residence, as well as any locations where a water source is present¹⁰. It is crucial to ensure that GFCI outlets are located where they are supposed to be, and that they are fully functional.

Identifying GFCI outlets

1. GFCI outlets are rectangular with two buttons (see right)
2. Check that GFCI outlets are present in all **bathrooms, kitchens, laundry rooms, basements, crawl spaces, garages, any outdoor spaces, and anywhere else with a water source** (sink, faucet, etc.)

Testing a GFCI outlet

1. **Press the TEST button.**
2. You should hear a click signaling that the power has been cut off. Plug in a lamp, phone charger, or something else to test the outlet. **If the GFCI is working correctly, the outlet will not supply power, and nothing plugged in will work.**
3. Press the RESET button to turn the power back on.
4. If the TEST button does not trip the circuit and the outlet is still supplying power, **it is a safety hazard and needs to be replaced by an electrician.**



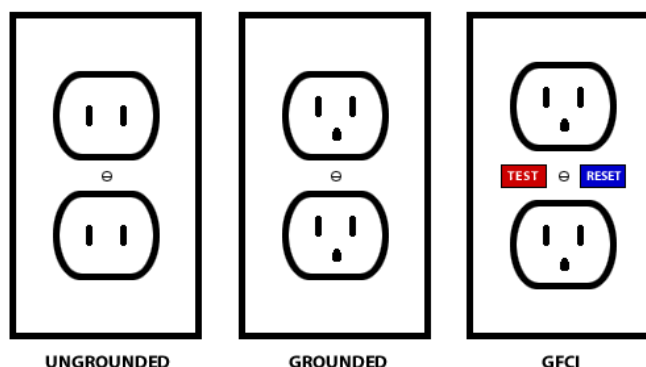
Missing or faulty GFCI outlets may be a deal-breaker for a residence. It costs on average \$210 to have a single GFCI installed¹¹, and if more than a couple are missing or faulty, it could cost hundreds or even more than a thousand dollars to ensure that the home meets critical safety standards surrounding GFCI outlets.

Ungrounded Receptacles

Grounded receptacles (outlets) provide a path to the ground for extra power. In the case of a power surge, these outlets channel the extra power to the earth where it is safely dispersed. Ungrounded outlets cannot handle extra power, which may be transferred to nearby people and materials, damage the receptacle and electrical wiring, or overload devices plugged into the receptacle. Federal code made grounded outlets required in all new construction in 1962, and houses built before then likely have ungrounded receptacles¹². It is important to be able to identify this common safety hazard,

Identifying ungrounded and grounded outlets

1. Ungrounded outlets are easy to identify, they have only two slots. Contrastingly, grounded outlets have an additional, circular slot at the bottom, this is where the grounding wire is connected. Receptacles with three slots are known as three-slot outlets.
2. **Three-slot outlets are not necessarily grounded.** A two-slot outlet may have been mistakenly replaced with a three-slot outlet, but if the electrical system was not rewired, the **outlet is still not grounded, and is still dangerous.**
3. Special equipment is required to test if an outlet is grounded. Unless you have access to this equipment to test every outlet, it is generally safe to follow these assumptions:
 - a. **Two-slot outlets are ALWAYS ungrounded** and are a **safety hazard** that should be replaced by an electrician.
 - b. Three-slot outlets are likely grounded, especially in a building built after 1962.
 - c. GFCI outlets may or may not be grounded but are safe for humans either way.



Ungrounded outlets may be a deal-breaker for a residence. Properly grounding a single ungrounded outlet costs on average between \$135 and \$300, assuming the proper wiring for a grounded outlet already exists in the building¹³. Running a new grounding wire to a home can cost an additional \$130 to \$170 per connection¹³. **An apartment that has entirely ungrounded outlets IS A DEAL-BREAKER**, as this signals that there is no grounding wire running to the apartment, so outlets cannot be grounded unless the landlord orders significant electrical upgrades to the entire building.

Exposed Lightbulbs

Exposed incandescent or LED lightbulbs in **closets, basements, garages, and utility closets** are a fire hazard commonly found in older residences. **They should be replaced with a new light that is fully enclosed.** A new, compliant light fixture may be less than \$10, and must be installed by an electrician since rewiring is required. Alternatively, for less than \$30, a Spin Light® can be screwed in over a bare lamp holder. These fixtures **do not technically meet federal code** but are a safe alternative to the installation of a new light and require no special knowledge to install¹⁴.



Example of an exposed incandescent lightbulb. Any kind of exposed bulb in a closet, basement, or garage is a safety hazard and should be replaced.



Installation guide for a Spin Light. These are not compliant with federal code, but are a safe, cheaper solution to exposed bulbs that can easily be installed by a resident.

Fire Safety

Smoke Alarms

Pennsylvania code requires that all homes and apartments have **at least one working smoke detector on each floor** and have a working smoke detector **within 15 feet of each bedroom**. These smoke detectors should be in common areas or hallways¹⁵. To test the smoke detectors in a building¹⁶:

1. **Press and hold the button on the smoke detector** until a loud, high-pitched siren sounds.
2. If you are with someone else, have them walk to the furthest point in the building from the smoke detector and **ensure that they can hear the alarm**.
3. If the sound is weak or the alarm does not sound at all, the batteries need to be replaced.

4. Stop pressing the button to stop the alarm.
5. The **batteries** in a smoke detector should be **replaced every six months**, and **smoke detectors themselves** should be replaced **every ten years**.

Fire Exits

In the case of a fire, a resident should be able to exit the building **without going through another unit**. A fire escape is one example of an approved exit.

Extension Cords

Extension cords are a great way to **temporarily** extend the electrical capabilities of a residence. However, they can overheat and cause fires if used incorrectly. If you see **multiple extension cords being used in a residence**, this may suggest that the building does not have enough outlets to handle all the devices residents use daily.

Water Damage and Mold

Background, Risks, and Why You Should Care

Water damage is a serious issue that can wreak havoc on a building. Water can enter a house in many ways: thunderstorms, clogged gutters, leaking pipes and appliances, and blocked drains, just to name a few. Left untreated, areas affected by water damage provide an ideal breeding ground for mold. On top of causing structural damage, when inhaled mold spores can exacerbate respiratory issues like asthma and trigger allergic reactions. **Extensive mold exposure has even been shown to cause upper respiratory tract symptoms, coughing, and wheezing in people who are otherwise entirely healthy¹⁷.**

Water Damage

Areas to Check

1. **Walls and ceilings.**
2. **Floorboards:** Look for stains, discoloration, lifting, and **buckling and sinking when stepped on.**
 - a. Check the floorboards **under carpets and rugs.**
3. **Around windows:** check the wood around windows for signs of damage.
4. **Around indoor plumbing fixtures:** pay special attention to the areas around **sinks, tubs, toilets,** and other sources of water.
5. **Around appliances:** pay *special* attention to floor areas around **washing machines and dishwashers.**

Signs of Water Damage

1. **Discoloration or staining:** Yellow, brown, or dark spots are almost always a sign of water damage.
2. **Peeling or bubbling** paint or wallpaper.



Water stains in a ceiling.



Bubbling paint caused by water damage.

3. **Soft or bulging walls:** Water damage can make drywall or plaster become soft and spongy.
 - a. If you suspect water damage in an area, **press on the walls** to see if they have an unusual, soft texture. If the wall **caves under your touch**, it almost certainly has water damage.



Water damage in wooden floorboards.

Mold

Areas to Check

1. All the same places you check for water damage.
2. In **pantries** and behind kitchen **appliances**
 - a. Check behind the microwave, stove, and fridge if possible.
3. Air conditioning and heating **vents**
4. Carpet, fabric, and **upholstery**
 - a. Mattresses, couches, chairs, curtains

Signs of Mold

6. All the same signs of water damage.
7. **Discoloration:** While water damage leaves yellow or brown spots, mold can be **green, white, black**, or other colors, and is often **speckled**.
8. **Musty smell:** while most older residences have a mild damp smell, a strong smell of mildew or must is a likely indicator of mold.
9. **Rotting** wood or other surfaces.
10. **Slimy, fuzzy, or powdery** colonies on surfaces.



Mold growing around a windowsill.



Mold on the walls of a house.

11. **Water damage:** Water damage creates the ideal conditions for mold to grow, and the two issues frequently occur together.



Mold growth in a shower.

Pest Infestations

Background, Risks, and Why You Should Care

Pests are an unwanted presence in any home. Rodents carry diseases, termites can severely compromise structural issues, and roaches can trigger asthma. Dealing with pest infestations is costly and time consuming, sometimes requiring residents to leave their residence for multiple hours if toxic chemicals are used. Pest infestations are most prevalent in low-income households, who are often least equipped to deal with them. Under Pennsylvania law, **landlords are required to “maintain the rental unit in a fit and habitable condition”¹⁸ which includes keeping the unit free of rodent infestations.** Insect infestations are not specified in the law as creating “uninhabitable conditions,” so it is critical to **pay close attention to the terms of a lease** to see what responsibility the landlord and tenants have in case of an insect infestation.

Rodents

Areas to Check

1. Window ledges and shelves
2. In drawers, cabinets, pantries, bins, or cupboards
 - a. **Anywhere food is stored**
3. Floors along walls
4. Wires
5. Walls

Signs of a Rodent Infestation

1. **Live or dead rodents:** if you see multiple rodents in an apartment, especially during the day, they are probably living there.
2. **Droppings:** rodent droppings are small, round, brown pellets.
 - a. Mice droppings are slightly smaller than rat droppings and have pointed ends.
3. **Tracks:** Look for **feet or tail marks on dusty surfaces**. They may also leave **oily or dirty marks** as they repeatedly walk from their nest to food sources.



Rodent tracks



Mice and rat droppings compared to rice grains. Mice droppings are smaller with pointed ends, while rat droppings are larger and shiny with round ends.

4. **Chewed wires or wood:** rodent's teeth never stop growing, so they frequently chew on things to keep them short.
5. **Nests:** rodents like to make nests in dark, secluded areas out of **paper, cotton, wall insulation, and fabric.**
 - a. If you see these materials scattered around an apartment, look around for a nest, which is a sure sign of an infestation.
6. **Noises in the walls:** if you suspect a rodent infestation, listen closely to the walls for the **sound of scratching or scampering** rodents.
7. **Bad smell:** rodent's urine causes a smell often likened to the smell of **stale ammonia.**



Rodent hole gnawed through a wood board



Mice nesting in wall insulation

Insects

Areas to Check

1. Windows and window ledges
2. Countertops and other surfaces
3. Inside cabinets, closets, pantries, and crawl spaces
4. Corners, walls, and ceilings
5. Mattresses and upholstered furniture (bedbugs)

General Signs of an Insect Infestation

1. **Live bugs:** while the occasional ant or even roach is perfectly normal, seeing many live bugs is a sign of an infestation.
2. **Dead bugs:** if you find many of the same species, there are probably living ones inside the building too.
3. **Hollow wood:** knock on wooden beams and floorboards, if they sound hollow, there is likely an ant or termite issue.

Signs of Specific Insects

Roaches

1. **Smears:** cockroaches leave **red/brown streaks** or “smears” on surfaces they pass over.
2. **Droppings:** cockroach droppings resembling coffee grounds.
3. **Shed skins.**
4. **Eggs:** breeding cockroaches leave behind egg cases that look like red or brown ovals.
5. **Bad smell:** cockroaches cause an **oily, musty smell** that is often very pungent.



*A cockroach next to a cockroach egg.
Roaches like to lay eggs in dark, damp spots
near food*



Cockroach smears on a surface



Dead cockroaches and droppings

Termites

1. **Termite swarmers:** finding these swarmers, dead or alive, inside a building is a certain sign of a thriving termite colony.
2. **Shelter tubes:** these mud tubes may be found on the inner or outer foundation walls, up support pipes, or any other exposed surfaces.
3. **Droppings:** termite droppings are piles of dry, uniform, six-sided pellets often found on floors and countertops.
4. **Bad smell:** termites **smell musty**, like mildew and mold, mimicking the odor of the decaying wood they feed on.



Termite swarmers



Termite tubes on the side of a house



A pile of termite droppings

Bed bugs

1. **Stains:** crushed bed bugs leave behind **rust/red blood stains** on sheets and mattresses.
2. **Spots:** bed bug droppings look like tiny, dark, marker dots on fabric.
3. **Eggs and shed skins.**
4. **Bad smell:** bedbugs smell **sickly sweet**, like berries.



Signs of bedbugs on a mattress

Ants

1. **Sawdust trails:** carpenter and other ant-types leave sawdust piles and trails near wooden beams, window ledges, and wood flooring.
2. Rusling **noises** in the walls.



Sawdust pile left by ants

Structural Issues

Backgrounds, Risks, and Why You Should Care

Structural damage is one of the most dangerous and expensive issues you can have in a building. Damage to its structure puts the overall integrity of a building at risk, as well as all the people living inside of it. While structural damage is very rare (although it is more common in older buildings) it is important to be aware of and able to identify the signs to ensure that a residence is safe and (structurally) sound.

Signs of Structural Damage

1. **Doors and windows:** the area around doors and windows is one of the first places where signs of structural damage will appear. Look for **doors or windows that stick or do not close at all**, will not stay closed, or are **separating from the wall**.
2. **Floors:** floors can give insight into the state of a building's foundation. If you see **excessive sloping, sagging, or cracking**, there is likely a structural issue.
3. **Cracks or bulging on walls or ceilings:** while small cracks on their own do not necessarily signal a structural issue, multiple, large cracks, especially when they are **above doorways or paired with a sagging ceiling**, are cause for concern.
4. **Sagging roof:** sagging or uneven roof lines are not ever normal, if you see them, there is likely an issue with the structure of the roof.



A large crack above a doorway. The presence of multiple cracks of this size is very concerning and a likely sign of structural damage.



An easy way to visually test for a sagging floor is to put a level above the area you suspect is sagging.

Structural issues may be a deal breaker for a building. If you suspect any structural damage, immediately bring it to the attention of the landlord and ask if they are aware of the issue and what they are doing to handle it. The landlord is responsible for ensuring that the building is in good condition and responsible for any structural repairs. If they brush off your concerns, it may be a sign that they are not doing their job in maintaining the building, and that when issues arise, they may not be responsive or responsible.



A sagging roof.



Bulging drywall is not always caused by structural damage, but when paired with other signs, it is a likely indicator.

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