1. HEALTHY HOMES BASICS

A. LEAD PAINT DUST FROM WINDOWS, DOORS & OTHER AREAS

The #1 source of lead poisoning in Michigan children is dust from paint in and around houses built before 1978. (90% of cases)

Levels at or above 5 mg/DL need action!

<table>
<thead>
<tr>
<th>Elk Burns</th>
<th>Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Death</td>
<td>150</td>
</tr>
<tr>
<td>Coma/Seizures</td>
<td>100</td>
</tr>
<tr>
<td>Kidney Damage</td>
<td>90</td>
</tr>
<tr>
<td>Anemia</td>
<td>60</td>
</tr>
<tr>
<td>Dehydration</td>
<td>40</td>
</tr>
<tr>
<td>Decreased lifespan</td>
<td>30</td>
</tr>
<tr>
<td>Decreased ability to make red blood cells</td>
<td>20</td>
</tr>
<tr>
<td>Nerve Problems</td>
<td>10</td>
</tr>
<tr>
<td>Interference with Brain Development (IQ/learning/growth)</td>
<td>9</td>
</tr>
</tbody>
</table>

Ingham County Lead Poisoning Data 2008 - 2013

283 kids/year on average from 2008-2013 Lead Poisoned in Ingham County

<table>
<thead>
<tr>
<th>Year</th>
<th># kids under age 6 tested</th>
<th># kids with BLL ≥ 5 mg/DL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>5,118</td>
<td>386</td>
</tr>
<tr>
<td>2009</td>
<td>5,310</td>
<td>492</td>
</tr>
<tr>
<td>2010</td>
<td>5,176</td>
<td>230</td>
</tr>
<tr>
<td>2011</td>
<td>4,795</td>
<td>219</td>
</tr>
<tr>
<td>2012</td>
<td>4,750</td>
<td>156</td>
</tr>
<tr>
<td>2013</td>
<td>4,700</td>
<td>215</td>
</tr>
</tbody>
</table>

About 17% of kids in Ingham County are tested each year.

60% of the homes in the county were built pre-1978 (the year lead-based paint was banned for residential use).

State lawmakers are looking for ways to increase testing rates so all kids living in pre-1978 housing are tested.

Source: Michigan Department of Community Health
While lead poisoning is going down in the county overall, some areas are still seeing rates up to 5x the overall national levels.

- Average number of lead-poisoned kids in Ingham County from 2007 – 2013: 283
- % of lead-poisoned kids in the U.S from 2007-2009: 2.6% *
- % of lead-poisoned kids in Ingham County 2007-2009: 10%.
- % of lead poisoned kids in Ingham County From 2009-2013: 5%
- % of kids lead poisoned in 15 of Lansing’s ~30 census tracts from 2008-2012 (the only census tracts in the county with rates this high): 10%-13% *

1. – Centers for Disease Control data as reported 5/14/14
http://mash.nbcnews.com/_news/2013/06/04/17926837-500000-kids-have-high-lead-levels-in-their-blood?lite
2. – 2007 – 2013 Michigan Department of Community Health Lead Surveillance Data

GET THE LEAD OUT!

1. FREE GRANT MONEY to test for and get rid of lead.
Call 1-866-691-5323.

2. TEST KIDS until they are 6 years old. Tests are done at WIC clinics, regular doctors’ visits and/or you can ask your doctor to order the test. Get kids tested at least once per year.

3. If results are over 5 mg/DL, take action!!
   - If the test was done with a finger-prick (capillary test), ask your doctor or nurse to have blood drawn from the arm to verify the result.
   - If you rent and your child is at or above 10 mg/DL, your landlord must make the home lead-safe*. To start the process, call 1-866-691-5323 or 517-272-4144.

4. Follow lead-safe cleaning practices and feed your child lead-reducing foods.

5. TEST YOUR HOME for lead-hazards. Testing must be done by a Certified Lead Risk Assessor. A list of certified assessors is available at michigan.gov/documents/Risk_Assessor-all_35920_7.htm or call 1-866-691-5323

6. Make sure renovation or repair to your home uses lead-safe practices.

* According to state law
TRI-TERRA

Ian Smith – 517-702-0470

Can help in some cases where a Lead Inspection/Risk Assessment is needed for a property and the house does not fit/meet the criteria for the state grant program.

Fee is $100 to process lead dust wipe samples.

LEAD SAFE REGISTRY

Check to see if a home you are thinking of buying or renting has been made lead-safe and/or has been tested for lead hazards:

www.michigan.gov/ismyhomeleadsafe

LEAD SAFE RULES

Some local governments include visual inspection for lead hazards and collection of lead dust-wipe samples in “high risk areas” (window sills, porches, bare soil) as part of their rental inspection process.

When lead hazards are found, they must be corrected using lead-safe work practices by trained lead-safe workers, and the property must receive “lead clearance” by a private firm.

LEAD SAFE RULES

City of Lansing is the area with the highest total number and highest percentage of lead poisoned kids, and 70% of cases occur in rental housing… yet city inspectors do not inspect for lead or require lead clearance as part of issuance of the Certificate of Compliance for rental property.

The Lansing City Council could change Chapter 1460 of the City Code to require it.
LEAD SAFE CLEANING

Cleaning deteriorating paint in a pre-1978 home

Excellent video online at http://tinyurl.com/leadclean

LEAD SAFE CLEANING

Step 1 - Supplies

Weekly cleaning can go a long way in reducing lead dust and/or small lead paint chips on floors, window sills and other areas.

You may read about lead-safe cleaning with a HEPA vacuum. This is a specialized unit costing $400-$700. We do not recommend vacuuming lead dust or chips with a vacuum that simply has a HEPA filter.

Step 2 - Gloves

Gloves, absorbent throw-away wipes or towels, garbage bags, spray bottle with liquid detergent and water, disposable towels and mop. Children should not be present while cleaning.

Step 3 - Wet Surfaces

HEPA* vacuum windows, floors, and porches, and then wipe lightly with the soap solution. If a HEPA is not available, carefully remove dirt and paint chips with a wet towel. Replace towels until the surface is clean.

Step 4 - Clean Surfaces

Wipe surfaces clean by applying pressure. This has proven to be effective in removing lead dust.

Step 5 - Wipe Floors

Misting with the soap solution and then wiping with towels is the best way to remove lead dust.

Step 6 - Mop Floors

A second choice is to dump mop vinyl and wood floors with the soap solution. Start at the back of the room and work toward the exit door. This way is not as good as Step 5.
LEAD SAFE CLEANING

Step 7 – Bag It

Change towels often until no paint chips or dirt can be seen. Put them in a garbage bag and seal with tape or a twist tie. The bag can be put out for normal trash pickup.

Step 8 – Clean Often

Do these steps often to protect your children from lead poisoning. They count on you for a lead-safe home to grow up healthy and smart.

Special acknowledgment to the Neurosciences Institute/Saint Mary’s Hospital, Saginaw, Michigan for their contribution in the development of this cleaning guide.

January 2005

RENOVATION, REPAIR & PAINTING (RRP) LAW

Landlords renovating, repairing or painting things that disturb lead-based paint in places with kids, built before 1978, must be “RRP certified” and follow “RRP practices”.

If landlords hire someone else to renovate, repair or paint, they may have to hire an RRP certified company, depending on the situation*.

*RRP certified workers must be used when working on areas with lead paint on more than 6 square feet inside the building, more than 20 square feet outside, or any size project involving window replacement or the demolition of painted surfaces.

RENOVATION, REPAIR & PAINTING (RRP) LAW

This law focuses on:
- Keeping non-workers out of the work area
- Working “wet” (spraying down surfaces, wet-sanding and wet-cutting)
- Minimizing dust & keeping it in the work area
- Cleaning up with HEPA Vacuums & Wet Cleaning

Check to see if a contractor or landlord is RRP Certified here: www.epa.gov/lead, click “Find a Lead-Safe Firm”

If your landlord disturbs painted surfaces in a pre-1978 home and you have kids, make sure that he/she is an RRP Certified Renovator, or is using contractors that are RRP-Certified Renovators.
On February 18, 2014, 35 home remodeling contractors and training providers settled with EPA to pay fines, after violations of the Lead Renovation, Repair and Painting rule.

The enforcement actions, which all require contractors to certify compliance with the RRP standards, led to more than $274,000 in civil penalties. Overall, fines were higher in this round than previous enforcement actions, with one company facing a penalty of $65,450 and numerous other companies penalized for up to $30,000.

Working without certification or failure to follow approved practices is punishable by fines of up to $37,500 per incident, per day, and can result in lawsuits initiated by consumers and/or EPA.

If you suspect a violation, call MDCH at 517-335-9390 or submit a complaint to EPA.

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To report a violation of RRP Laws, contact:
David Turpin 312-886-7836
turpin.david@epa.gov

Enforcement Officer: Julie Morris
morris.julie@epa.gov Phone: 312-886-0863
www.epa.gov/Compliance or www.epa.gov/region5

U.S. EPA Region 5 (DT-8J)
77 W. Jackson Blvd.
Chicago, IL 60604

This form available online in PDF at hd.inghm.org
“Environmental Health”, “Lead Poisoning Prevention”
LEAD POISONING LITIGATION

Several Michigan law firms represent individuals seeking damages for lead poisoning while residing in rental housing. Most operate on a no-cost promise: you if you are awarded a settlement, the attorney keeps a portion as their fee, but you do not pay upfront. Most also offer a no-cost consultation over the phone or in person.

- Mindell Attorneys – 1-800-963-5595 www.mindellfirm.com/michigan-lead-poisoning-lawyers
- Gruel, Mills, Nims & Plyman - 1-855-923-5500 (toll free) www.gmnp.net/lead-paint-exposure
- Buckfire & Buckfire - 1-800-606-1717 www.buckfirelaw.com

LOCAL LEAD INFO AND RESOURCES

Info and resources for:
- Parents
- Homeowners
- Renters
- Landlords
- Contractors
- Doctors, Nurses and other Clinicians

hd.ingham.org “Environmental Health” or “Healthy Homes”

B. PESTS

Roaches, mice and rats are common asthma triggers. Simple steps to keep them away:

- Garbage can with lid
- Keep food in the fridge, freezer or airtight containers.
- Set out trash and recycling for collection. (City of Lansing blue trash bags cost only $1.75 each, and free green recycling carts take most types and shapes of metals, plastic, glass, paper and cardboard)

PESTS

Rodents squeeze into houses at gaps in vents and pipes going into or out of the house.

Sealing gaps and cracks with caulk or masonry will help keep rodents out of the house.
PEST INFESTATIONS

If you have a pest infestation and are not sure what is your responsibility vs. your landlord’s responsibility, contact:

- MSU College of Law: 517-336-8088
- Legal Services of South Central Michigan: 1-888-783-8190, M-Th 9am-11am and Thurs 5pm-7pm.
- Ingham County Health Department: 517-887-4312

BEDBUGS

Bedbugs are not known to carry disease, but their bites cause skin itching and irritation. They are a growing problem in apartment complexes/large buildings, but they can live in all kinds of buildings. Some supplies that can help:

- Bedbug Mattress Covers
- Bedbug Interceptors (go under bed post)
- Bedbug Heaters (kill bedbugs that may be on suitcases and other non-washable items)

BEDBUGS

Is it a bedbug?

- Oval, flattened, brown, and wingless insects approximately 1/4" to 3/8" long
- Similar in appearance to a wood tick
- Changes from brown to purplish-red, and gets larger and more cigar-like shape after eating
- Babies are nearly colorless except after feeding, but resemble the adult in general shape
- Leaves “cast skins” = empty shells of bugs as they grow from one stage to the next
- Deposits fecal spots (composed of digested blood) in areas adjacent to the feeding site or back at their hiding places
- Bites people, often on their feet, legs, hands/writes and arms. Bites can cause red, irritated welts.

BEDBUGS

- If you live in a multi-unit building, use bedbug-proof mattress covers and bedbug interceptors
- If you sleep away from home (hotel, friends house, etc), check mattress casing, luggage rack and other locations for signs of bedbugs before you sleep there or bring in your luggage
BEDBUGS

- At hotels, always keep your luggage, shoes, clothes, books and belongings on the METAL luggage rack, bathtub, or on hangers and NOT on the floor or beds.
- Avoid sitting on fabric chairs in high-traffic or public buildings. Use chairs that are vinyl, leather, plastic or metal instead.
- If you have been exposed, wash all exposed items in hot water and dry in a hot dryer, and/or use a heat-treatment machine.

Tips to prevent bringing bedbugs home from another sleeping place if you may have been exposed:

- Immediately launder all the clothing, backpacks or other bags you brought with you, or seal them inside a ziplock-closing plastic bag until they can be laundered in hot water and dried in a hot dryer.
- Vacuum your suitcase, inside and out. Then, immediately discard the contents of the vacuum in a plastic bag which can be sealed tightly shut and then put in the trash, and clean out your vacuum thoroughly.

Tips to prevent bringing bedbugs home from another sleeping place if you may have been exposed, cont’d

- Store your suitcase inside a large plastic bag or box to ensure, in the unlikely event that bed bugs did hitchhike, they cannot move from your suitcase into your home.
- Launder or wipe your shoes down with a damp cloth and hot water to reduce the risk of them being infested with bed bugs.

In Chicago, a renters’ group got the City of Chicago to adopt and law in 2013 that includes fines and penalties for failure to comply.

www.tenants-rights.org/chicago-council-passes-bed-bug-ordinance/
DUST MITES

Many people are allergic to tiny bugs that live in dust, called dust mites, which can also be in mattresses, pillows, stuffed animals, furniture and curtains. How to prevent & get rid of them:

- Vacuum furniture, carpets, floors and curtains regularly, using a vacuum with a HEPA filter.
- Use allergy mattress and pillow covers that zip closed. (Covers made for bedbug prevention work as well.)
- Wipe down surfaces weekly with a damp cloth, and get rid of clutter.
- Wash sheets, blankets and stuffed animals in hot water weekly.

C. SMOKE

Kids who breathe secondhand smoke from cigarettes, cigars, or pipes are more likely:

- To die of SIDS (Sudden Infant Death Syndrome)
- To get asthma and have asthma attacks
- To have ear and lung infections
- To get lung cancer and heart disease

QUITTING SMOKING

Michigan Tobacco Quit Line
1-800-784-8669: personal health coach and toolkit to help you gain confidence and motivation to quit.

Medicaid and private insurance may cover products and/or medications to help you quit. Call your health plan, or check here: tinyurl.com/quitbennies

SMOKE-FREE APARTMENTS

Smoke-free apartment policies are permitted under federal and Michigan laws.

Smokers are not a protected legal class. There is no "right to smoke" under law.

Some Michigan counties and localities now have laws that prohibit smoking in common areas of apartment buildings, such as hallways, laundry rooms, recreation/common rooms, near entrances, and similar types of areas.

Laws exist that allow you to assert your rights to a smoke-free apartment.

Non-smokers with serious breathing disabilities or smoke allergies have legal protection under the Americans with Disabilities Act and the Fair Housing Act. If secondhand smoke seriously affects your ability to breathe, consult a doctor to have your condition documented.
SMOKE-FREE APARTMENTS

If your landlord decides to change or convert the entire building or just some units or portions of the building into a smoke-free policy, they must grandfather in those smoking residents currently residing at the complex until such time as the smoking policy can be legally changed under the terms of the lease/rental agreement and Michigan law, such as at the time of lease renewal.

Smoke-free policies can cover cigarettes, cigars, pipes, e-cigarettes and marijuana.

Help for landlords and tenants.
MISmokeFreeApartment.org
Smoke Free Environments Law Project
734-665-1126
sfelp@tcsog.org, or
Ingham County Health Department – Amy Moore
517-887-4312
amoore@ingham.org

D. MOLD

Mold can be black, red, green or white. It smells musty and grows in wet places, like bathrooms and basements. Many people are allergic to mold.

If you think you have mold and want to know how to clean it up and prevent regrowth, contact: Ingham County Health Department at 517-887-4312.

MOLD PREVENTION

- Run a dehumidifier in the basement set to 50%.
- Fix any water leaks in your house right away. If you rent report leaks to your landlord right away.
- Clean up standing water right away – don’t allow puddles of water in basements, etc.
- Run a bathroom fan, or open a bathroom window, during and 10-15 minutes after showers or baths.
- Lack of proper insulation in walls, especially around windows, can also lead to mold growth inside and outside of buildings.

KEEP WATER OUT OF YOUR BASEMENT

Rain gutters should be 6-8 feet away from the house.
Soil should slant away from the house.

Clean out rain gutters every spring and fall.
Dryers need to vent to the outside of the house.
## E. OTHER DANGERS & SOLUTIONS

<table>
<thead>
<tr>
<th>DANGER</th>
<th>SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire &amp; Safety Hazards</td>
<td>Should be addressed by local housing code enforcement and resident safety practices to prevent fires and trip and fall hazards.</td>
</tr>
<tr>
<td>Radon (causes lung cancer:</td>
<td>Radon Test Kits – Call 517-887-4312</td>
</tr>
<tr>
<td>epa.gov/radon/healthrisks.html)</td>
<td></td>
</tr>
<tr>
<td>Cats &amp; dogs (common asthma triggers)</td>
<td>If someone in the home is allergic, don’t get pets. Keep pets out of bedrooms and wash them frequently.</td>
</tr>
<tr>
<td>Carbon monoxide (invisible, odorless gas</td>
<td>Install a carbon monoxide detector. If it goes off, leave the building and call the fire department and/or gas company to come check the building.</td>
</tr>
<tr>
<td>that can cause headaches, nausea, lethargy</td>
<td></td>
</tr>
<tr>
<td>and can kill you)</td>
<td></td>
</tr>
<tr>
<td>Pesticides (Spray, fogger, liquid and</td>
<td>Follow tips to avoid bugs and rodents. Also find out where pests are getting in, and seal off these areas. Use traps instead of pesticides if needed. For large infestations, contact professional pest management services. Keep children away from surfaces where pesticides have been applied.</td>
</tr>
<tr>
<td>powder pesticides are poisons that cause</td>
<td></td>
</tr>
<tr>
<td>lung, eye and throat irritation, and death</td>
<td></td>
</tr>
<tr>
<td>if ingested.</td>
<td></td>
</tr>
<tr>
<td>Volatile organic compounds</td>
<td>Look for “low-VOC”, “low-odor”, and “fragrance-free” products. Use VOC-containing products in areas with plenty of fresh air flow. Use baking soda and vinegar for cleaning instead of chemical cleaners. Use unscented laundry, dish and hand soaps. Freshen air with open windows and natural, essential oils like lavender or mint instead of artificial/chemical-based scents.</td>
</tr>
<tr>
<td>(from paints, paint strippers, varnish,</td>
<td></td>
</tr>
<tr>
<td>glues, air fresheners and other scented</td>
<td></td>
</tr>
<tr>
<td>products – common asthma trigger and</td>
<td></td>
</tr>
<tr>
<td>can be carcinogenic)</td>
<td></td>
</tr>
<tr>
<td>Asbestos (a white, fibery material used in many old building materials)</td>
<td>If it is not damaged (broken or fraying) is best to leave it alone. Otherwise, contact a professional asbestos testing and repair company. Do not remove asbestos yourself.</td>
</tr>
<tr>
<td>Mercury</td>
<td>If you break a glass thermometer, older thermostat, or spiral-shaped light bulb (CFL) and mercury spills out, open a window and get everyone out of the area. Do not wipe, sweep or vacuum mercury or put it down a drain. Call 517-887-4312 (including after hours). Free clean-up is provided in Ingham County for under 2 tablespoons of mercury.</td>
</tr>
</tbody>
</table>

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### FIRE AND SAFETY HAZARDS

Most places follow the International Property Maintenance Code as the “set of rules” for housing conditions, including fire and safety issues as well as other building conditions:

The code is available online at:


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### FIRE & SAFETY HAZARDS

Tips on resident safety practices to prevent fires can be found here:

www.portlandoregon.gov/fire/article/7025

Tips on resident practices to prevent trip and fall can be found here:

www.portlandoregon.gov/fire/article/7024
**HOUSEHOLD HAZARDOUS WASTE**

- Free to drop off your cleaners, pesticides, fertilizers, acids and bases, mercury, used gasoline, oil based paint, stains and non-controlled medications.
- For Ingham County residents
  - 2:00 - 6:00 pm, every Tuesday and Thursday, May through September at 5303 S. Cedar St.
- Items NOT accepted: antifreeze, waste engine oil, latex paint, controlled medication, vitamins, non-rechargeable batteries and any electronic appliances.
- More info at [hd.ingham.org](http://hd.ingham.org) or call 517-887-4312.

**F. OTHER HEALTHY HOMES “BEST PRACTICES”**

For people with allergies and asthma, carpeted and upholstered fabric can trap pet dander, dust, dust mites, pollen, mold and other allergen.

Opt for hard surface flooring instead of carpet and washable/wipe-able couches and chairs fabric, especially in bedrooms. If you do have fabric couches or chairs, vacuum them frequently.

**G. OTHER ASTHMA RESOURCES**

www.midmichasthma.org

- Annual free asthma screening & asthma help event (October)
- Resources for parents, patients and healthcare providers
- Other relevant information about local asthma challenges and opportunities
- Monthly meeting 517-272-4144

**Asthma Info for Parents**

**BREATHING EASY**

**STEP ONE:** Get a primary care doctor for your child. If you need help getting insurance or finding a doctor, call 517-887-4306.

**STEP TWO:** Ask your doctor for “spirometry” tests starting at age 5 if your child has symptoms, and to retest at least once per year to see if medications need to change.

**STEP THREE:** Ask your doctor to create and Asthma Action Plan for your child to help you remember medicines and triggers, and to keep on file at your child’s school.

Asthma action plans should include allergy triggers and information on how to avoid triggers in your home and elsewhere. Allergy testing can go a long way in pinpointing triggers and avoiding them, or receiving immunotherapy to reduce sensitivity.