A Guide to a Healthy Home

Michigan Department of Community Health
Healthy Homes Section

We spend about **90%** of our time indoors! We eat, sleep and breathe inside our homes. It makes sense to have a healthy home. A healthy home is free of things that can cause health problems or injuries. Dust, mold, pets, roaches, mice, carbon monoxide, fires, smoke and poisons are some of the dangers that can make your home unhealthy. Children are most at risk because they're still growing.

This booklet tells you how to maintain your home in order to reduce or remove dangers. It also tells you how to prevent injuries from happening so that your home can be a safe and healthy place for your family.

BUGS, PETS AND OTHER THINGS

Mold, dust mites, roaches, rodents and pet dander are common things that can make you sick. They are very bad for people with asthma and allergies.

Mold

A lot of people are allergic to mold. Mold smells musty. It grows in wet places, like basements and bathrooms. Here's what you can to do stop mold from growing in your house.

- Fix water leaks in your house right away.
- Make sure the rainwater can drain away from your house. Clean and repair the gutters. Attach extenders to the downspouts. The ground near the house should slope away so the water will drain.
- Use a dehumidifier inside your house to keep the humidity around 50%.
- Connect the vent from the dryer to the outside of your house. Moisture from your clothes will go outside instead of back into your house.

Get rid of moldy things in your house. Find out how to clean up mold the right way. Read the "Molds in Your Home" brochure to get cleanup instructions. You can find it by going to www.michigan.gov/mdch-toxic .

- Remove carpet in rooms that are damp like basements and bathrooms. Wash throw rugs at least once a week.

- Do not over water plants. Cover plant dirt with stones.

Dust Mites

Many people are allergic to the tiny bugs that live in dust, called dust mites. The mites live in every home in soft items like mattresses, pillows, carpets, stuffed toys, furniture and curtains. Here's how to get rid of dust mites.

- Get rid of clutter. Dust all of the rooms in your house once a week using a damp cloth.

- Wash your sheets and blankets in hot water once a week. Check the setting on your water heater. Keep the temperature of your water between 120 and 130 degrees.

- Use dust mite proof mattress and pillow covers to keep from breathing dust mites. Follow the cleaning instructions found on the package or label.

- Get rid of stuffed toys. If you keep a stuffed toy, wash it in hot water every week. If a toy cannot be washed, put it in the freezer for a day to kill the dust mites.

- Vacuum or use hot water to clean pillows, rugs and curtains once a week.

- Vacuum at least once a week. Use a vacuum with a HEPA filter.

- Dust mites like moisture. Keep indoor humidity levels around 50%.

- Replace carpet with flooring that can be moppe

Cockroaches, Mice, and Rats

Many people with asthma are allergic to cockroaches, mice and rats. Mice and rats can bring disease to people. Get rid of these pests. Don't share your food with them.

- Keep food in hard, closed containers. Wipe up crumbs and wash food off dishes right away.

- Use a trashcan with a lid. Regularly remove the trash from the house.

- Cockroaches, mice and rats need water to live. Make sure there are no water puddles inside the home. Fix leaks right away.

- Do not leave pet food or water out at night. Keep extra food in sealed containers.

- Use traps or sticky pads to kill them instead of sprays or poisons.

Pets

Some people are allergic to dogs, cats or birds. Pet allergies are caused by the dander (dead skin that is shed), saliva and urine.

- Find a new home for the pet or keep it outside if someone in your family is allergic to animals.

- Don't allow pets on beds or in the bedroom.
- Wash the pet weekly.
- Do not allow children with asthma or pet allergies to rub their faces in a pet's fur.
- Have children wash their hands after touching pets.

CHEMICALS

There are chemicals in your home, both natural and man-made. Some chemicals can make you sick or even cause death.

Carbon Monoxide

Carbon monoxide has no odor or color and is toxic. You can't see it, taste it or smell it. It comes from burning fuel like natural gas, wood and kerosene. Your furnace, stove, water heater or fireplace might give it off if they are not working right. Cars produce carbon monoxide when the motor is running.

Signs of carbon monoxide poisoning are similar to the flu. You may have a headache, nausea, dizziness or feel tired. Carbon monoxide poisoning can lead to coma or death.

- Never leave a car running in the garage.
- Do not use kerosene heaters, grills, generators or fuel-powered machines indoors.
- Do not use a gas stove to heat your house.

- Have chimneys, water heaters, gas-burning furnaces or fireplaces checked once a year by a professional.

- Install a carbon monoxide detector. If the alarm goes off, get outside and call the fire department or gas company.

- If you think that you have been poisoned by carbon monoxide, leave the building and call 911 right away.

Nitrogen Oxides and Sulfer Dioxide

Using an unvented gas stove, fireplace or wood burner can lead to high indoor levels of these gasses, which have no color or smell. Nitrogen oxides can hurt the lungs and sulfur dioxide can burn the eyes, nose and lungs. People with breathing problems can suffer the most.

- When cooking, turn on the stove vent to move the air to the outside.

- If the vent does not move the air to the outside or you do not have a vent, open a door or window to clear the gases from the room.

- Do not use a gas stove or kerosene space heater to heat your house.

- Do not burn charcoal indoors.

Secondhand Smoke

Secondhand smoke comes from the burning end of anything being smoked such as a cigarette, pipe, cigar or drugs. It

also comes from the smoke exhaled by smokers. Smoke is full of harmful chemicals such as arsenic, cyanide, benzene, formaldehyde, tar and carbon monoxide.

Children breathing secondhand smoke are more likely to be sick. Secondhand smoke increases the chance of a child dying of Sudden Infant Death Syndrome (SIDS). Breathing secondhand smoke can cause asthma and asthma attacks in children. They are likely to have ear and respiratory infections. Secondhand smoke also causes lung cancer and heart disease.

- Do not smoke. If you are a smoker, talk to your doctor to find ways to quit.
- Until you quit, smoke outside every time. This keeps chemicals out your home. Wear a jacket and remove before you come back in. Wash your hands.
- Do not smoke in a car (especially with children present).
- Get a Quit Kit, call 800-QUIT-NOW (784-8669). Do not give up trying. It may take a few times.

Pesticides

Pesticides are chemicals used to kill insects, termites, and rodents. They come in sprays, liquids, powders and foggers. Many pesticides cause severe health problems in people. Pesticides cause eye, nose and throat irritation, kidney damage and cancer.

- Use methods to control pests that do not use chemicals. Try a fly swatter and a vacuum. Use traps and sticky gels.

- Caulk around the windows, doors, cracks, and holes bigger than a dime. Fix leaky toilets, pipes and faucets to get rid of water that pests need to live.

- Keep food in sealed containers. Clean up dirty dishes and wipe up food spills right away. Rinse empty pop bottles and get them out of the house.

- Wash pets to remove fleas and dust mites.

- Store firewood, building materials and anything else away from your house. Pests like dark, moist places.

- Keep a healthy lawn by watering and aerating the soil.

- Use boric acid for ants and cockroaches. Keep away from children and pets.

- If you must use pesticides, follow the directions on the label. Do not overuse them. Do not spray them indoors. Store them in a locked cabinet, out of children's reach. Keep in original container with label so you know what it is.

Other Organic Chemicals

Volatile organic chemicals (VOCs) are in paint, paint strippers, varnish, glues, cleaners and hobby products. You may have health problems if you breathe, swallow or touch too much of a product containing VOCs. Health problems include eye, lung and throat pain, headaches, dizziness, vision

and memory problems. Many VOCs can cause cancer.

- Store chemicals in their original containers. Always follow the instructions on the label. Using extra will not do the job better and may make you sick.

- Use VOCs in an open area only. Open windows. Use a fan to blow the fumes to the outside.

- Buy only as much as you need and safely get rid of unused products. Contact your local health department to find out where to drop off these products - do not put them in the trash, down the drain or outside!

- Most VOCs are harmful if swallowed. Use cabinet safety locks or store chemicals where children cannot reach them. Keep the phone number for the Poison Control Center on your phone or refrigerator. If you think someone has swallowed anything dangerous, call Poison Control right away at 800-222-1222.

- Many air fresheners contain VOCs that are harmful to the lungs. People with asthma may react to perfumes in air fresheners, incense or candles. Instead of using an air freshener to cover up a smell, get rid of the source of the smell and keep the room aired out. Cleaning weekly and controlling indoor moisture is often all that is needed to keep rooms smelling fresh.

- Use non-toxic cleaners. You can use baking soda and/or vinegar with water for cleaning. An oil-soap can be used to clean wood surfaces and floors.

- Air out new furniture and any other items with a 'brand new smell' before bringing them inside.

Asbestos

Asbestos is a mineral that was used in many building materials including insulation, fireproofing, ceiling and floor tiles, and furnace wrap. Asbestos can cause lung and chest cancer and lung scarring.

- Damaged asbestos is dangerous if you breathe it. If you think that you have asbestos in your home and it is in good condition leave it alone.

- If the asbestos is damaged, hire a professional to test it. The professional will tell you if it is better to leave the asbestos or remove it.

Lead

Lead is a metal that was used in paint. Lead may be in your house if the house was built before 1978. Lead is most harmful to young children. Lead poisoning can slow a child's ability to learn and cause behavior problems. Even a few small dust particles of lead can cause poisoning in a child. Children are in danger when they can reach areas with lead paint. These areas include windows, doors, stairs, porches, siding and fences.

Lead gets into the body by breathing or swallowing it. Lead can be in dust, dirt and paint. Young children can come into contact with lead as they crawl indoors and outside. Lead dust can be on their hands and anything else they put in their mouths.

Lead can also be harmful to adults. It can cause high blood pressure, digestion problems, reproduction problems, nerve disorders, memory problems and muscle and joint pain.

- Have your child under six years old tested for lead. Very young children should be tested every year with a blood test.

- Hire a licensed person to test your home. Home test kits can be used but are not as accurate. To find people to test and remove lead paint, call the Healthy Homes Section at 866-691-LEAD or visit www.michigan.gov/leadsafe.

- Removing lead paint without training is dangerous for you and your family. Hire a licensed company with lead-safe work training.

- There are some things you can do now to protect your family. Clean up paint chips. They are mostly found in windows, porches and doors. Wet dust and mop at least once a week to remove lead dust.

- Wash children's hands before they eat and sleep. Keep play areas and toys clean. Keep children from chewing on windows and other painted surfaces. Make sure children eat foods that have iron and calcium, such as leafy green vegetables and dairy products. These foods lower how much lead is taken into the body.

Mercury

Mercury is a liquid metal that is used in thermometers, old thermostats and compact fluorescent light bulbs (CFL's). Mercury evaporates into the air. Mercury vapor is harmful when breathed by adults

and especially children because of their smaller size.

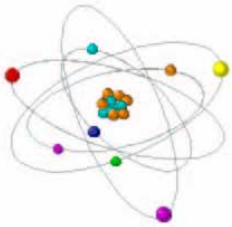
- If you have a spill, open the windows and get everyone out of the area. Don't vacuum, sweep, or wipe it up.

- Never pour mercury down your drain—the vapor will rise from the drain.

- Mercury needs to be cleaned up the right way. Carpet and rugs will need to be thrown out. You can find out how by reading "Indoor Mercury Spills" fact sheet at www.michigan.gov/mercury, or calling the Toxics and Health Hotline at 800-648-6942.

- Replace your mercury thermometer with a new mercury-free one. Call your local health department to find out how and where to get rid of it.

Radon



Radon is a gas with no color or smell. It comes from the ground and seeps into basements and crawl spaces. Radon can cause lung cancer. In Michigan, 1 of every 8 homes has a radon problem. It is possible for one home to have high levels of radon and for the home next door to have low levels.

- Test the lowest floor of your home that is used by your family. Radon test kits can be purchased from your local health department or a hardware store for about $10

- Spend less of your time there until you know the results of the radon test.

- A home with radon can be fixed. In the basement, painting the floor, sealing the cracks and increasing air

flow are low-cost methods. A trained company can install a radon-removal system for high levels.

INJURIES

An injury is no accident. Injuries can be stopped before they happen. Children and adults can be seriously hurt and can even die from injuries.

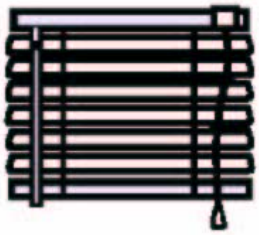
Fires

- Put a smoke alarm on every floor and all bedrooms of the home. Test smoke alarms every 6 months to make sure the battery is still working. Replace the batteries when needed.
- Put a fire extinguisher in your kitchen near an exit. Learn how to use it before needed.
- Keep matches and lighters away from children. Teach them about fire safety.
- Make a fire escape plan with your family and practice it. Show children how to get out windows, and where to meet in a safe place outside. Find one at www.michigansafekids.org.
- Keep space heaters away from curtains and bedding.
- Do not overload outlets with strips and plugs.
- If there are small children in the home, plug in outlet covers or move furniture to block outlets. This will reduce the chance of a child dying from electrical shock.

Choking

- Hotdogs, nuts, popcorn and hard candy can cause choking. Do not let young children eat foods they can choke on. They should be sitting when they eat and drink.

- Do not let young children play with balloons, coins or marbles.



- Use window cord holders to keep the cord out of a child's reach.

- Keep toys with small parts and strings away from young children.

- Take a CPR class to know what to do before your child chokes. A First Aid class would also be useful.

Drowning

- Watch children under 12 years of age at all times when swimming. No child should swim alone.

- Pools, hot tubs and spas should have a gate that is at least five feet high and is self-latching.

- Never leave a child alone in the tub. A child can drown in two inches of water. Toilet lids should be closed to keep toddlers from falling in.

Falls

Older people are in more danger from these injuries because their bones break more easily.

- Make sure there is lighting in hallways and stairs. Use nightlights. Have a flashlight by the bed in case the power goes out.
- Make sure stairs and handrails are sturdy. Install handrails where needed.

- Put gripper tape on the bottom of rugs that slip, or remove them.
- Remove floor clutter that can cause tripping.

Guns

The best way to stop injury or death from a gun is not to keep one in the home.

- If you do have a gun, make sure it is unloaded. Use a trigger lock or keep it locked away.
- Bullets should be locked away from the gun.
- Teach children that guns can kill people, and that they are not toys.
- Do not clean a gun with others in the room.
- Never point a gun at a person.
- Take a gun safety class.

HEALTHY HOMES RESOURCES

MICHIGAN RESOURCES

Department of Community Health
Environmental Health Division
Healthy Homes Section
517-335-8350

Contaminants in the Home
MI Toxics & Health Hotline
800-648-6942
www.michigan.gov/mdch-toxic

Lead
Lead Hot Line: 866-691-5323
www.michigan.gov/leadsafe

Mold
Mold Information Line
517-335-9436

Mercury
www.michigan.gov/mercury

Poison Control
800-222-1222

Smoking Cessation
Michigan Tobacco Quit Line
800-QUIT-NOW (784-8669)
www.michigan.gov/tobacco

Safety
Safe Kids Michigan
517-335-9519
www.michigansafekids.org

Asthma Initiative of Michigan
866-EZLUNGS (395-8647)
www.michiganasthma.org

NATIONAL RESOURCES

American Lung Association
800-LUNG-USA (800-586-4872)
www.lungusa.org

Asthma and Allergy Foundation
800-7ASTHMA (727-8462)
www.aafa.org

Centers for Disease Control
National Center for Environmental Health
www.cdc.gov/nceh

Consumer Product Safety Commission
800-638-CPSC (2772)
www.cpsc.org

Housing and Urban Development
Office of Healthy Homes & Lead Hazard Control
www.hud.gov/offices/lead

National Center for Healthy Housing
877-312-3046
www.nchh.org

United States Environmental Protection Agency
www.epa.gov

EPA: Indoor Air Quality
800-438-4318
www.epa.gov/iaq

EPA: Asbestos
www.epa.gov/asbestos

EPA: Mold Information & Cleanup
www.epa.gov/iaq/molds/moldguide.html

HOME MAINTENANCE CHECKLIST

Yard & Exterior	Spring	Fall	Annual
No Trip, fall, choking, sharp edge hazards	X	X	
Check for signs of rodents and insects	X	X	
Drain outdoor faucets and hoses		X	
Clean window wells and check drainage	X	X	
Clean gutters and downspouts	X	X	
Basement & Crawlspaces	Spring	Fall	Annual
Check sump pump and valve	X	X	
Floor drain working, no wet surfaces	X		
Vacuum basement surfaces	X		
Check for signs of rodents and insects		X	
Exterior Roof, Wall, Windows-check for leaks	Spring	Fall	Annual
Shingles in good condition	X		
Check roof flashing (chimney and vents)	X		
Make gutters move water away from building	X		
Check attic for signs of roof leaks	X		
Check icicles and ice dams			winter
Look for peeling paint	X		
Look for leaks where deck attaches to house	X		
Repair broken and cracked glass		X	
Look for leaks at window and door sills	X		
Clean dryer vent and check exhaust is clear	X	X	
Interior Walls, Ceilings, Windows, Doors	Spring	Fall	Annual
Check for signs of water damage			X
Lubricate and repair windows and doors			X

Plumbing, Electrical and Appliances	Spring	Fall	Annual
Check washer and dishwasher hoses for leaks			X
Clean and check refrigerator drip pan and icemaker connections			X
Check shower-tub surrounds for damage			X
Check water heater and boiler for leaks		X	
Check water main/meter , well pump and pipes for leaks or sweating		X	
Clean septic tank			2 YRS
Check bath and kitchen fans work	X	X	
Check for damaged electrical cords	X	X	
Test ground fault interrupters	X	X	
Check smoke and CO alarms work	X	X	
Heating, Ventilation and Air Conditioning (HVAC) Equipment-replace filters	Spring	Fall	Annual
Warm air furnace		X	
Air conditioner/ Dehumidifier	X		
Appliances	Spring	Fall	Annual
Clean range hood and exhaust fans screens	X		
Clean AC and dehumidifier coils, drain pans	X		
Clean and tune furnaces, boilers and water heaters		X	
Attic	Spring	Fall	Annual
Check for signs of rodents and insects		X	
Check for water damage		X	
Ensure insulation in place		X	
Check that fans and ducts exhaust to outdoors		X	

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