

Healthy Homes = Healthy Kids

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What is Health?

- The World Health Organization (WHO) defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity

What Puts a Child at Risk?

- Socioeconomic status
- Structural and safety aspects of the home
- Physical condition of neighborhood

Why a Healthy Home?

- Most Americans spend about 90% of their time indoors, and an estimated two-thirds of that time is spent in the home.

Klepeis, NE, Nelson, WC, Ott WR, et al

- Very young children spend even more time at home and are especially vulnerable to household hazards.

Klepeis, NE, Tsang, AM, and

Behar, JV

The 1800's

- "The Connection between the health and the dwelling of the population is one of the most important that exists."

-Florence Nightingale

Housing Related Health Problems

- Asthma and allergies
- Brain damage
- Hearing and vision problems (lead poisoning)
- Behavior and learning problems
- Cancers
- Injuries
- Poisonings

The 7 Principles of Healthy Homes

- Keep it clean
- Keep it dry
- Keep it ventilated
- Keep it pest-free
- Keep it maintained
- Keep it safe
- Keep it contaminant-free

Keep It Dry – Mold and Moisture

- Upper respiratory tract symptoms including coughing, wheezing, sneezing
- Asthma symptoms and exacerbation
- Moisture in the home supports the presence of dust mites, roaches, rats and mice

anytime a child has asthma problems - it can effect their brain develop. (Reduce of oxygen)

correlation between decrease blood flow + increase brain abnormalities

Sources of Moisture

- Rainwater and groundwater
- Plumbing leaks
- Condensation on surfaces - think fridge and toilet
- **BASEMENTS pose a special problem**

Steroids have an impact on brain dev.

What to Do

- Dehumidify
- Fix leaks immediately
- Drain, Drain, Drain
- Vent moisture from bathrooms, dryers, and stoves to the outside
- Limit plants

Keep It Clean

- Dust Control including hard surface walkways, outside mats, inside carpet pad, and hard surface floors
- Cleaning – no dry dusting or sweeping, vacuum slowly, frequently change water

Keep It Ventilated

- Pollutants levels are 2-5 times higher indoors than outdoors
- Ventilation reduces hazards of VOCs, moisture, ETS, allergens, mold, CO, and formaldehyde
- Good ventilation helps reduce respiratory irritation and illness including common colds, flu, pneumonia, and bronchitis

What to Do?

- Are fans vented properly – consider bathrooms, clothes dryers, gas ranges, boiler, furnaces, and hot water heaters, fireplaces and wood burning stoves
- Don't forget about good old-fashioned air
- Limit use of candles, home deodorizers, cleaners, etc
- No smoking indoors

Why It's Important

- Infants and young children are more susceptible to adverse health effects from VOCs
- Children spend more time indoors
- Frequent hand to mouth behaviors

National Children's Study =
looking at the effects
of environmental
hazards on children

A Must For Every Home

- Carbon Monoxide Alarms – place near sleeping areas, place on every level of the home, do not install directly above or beside fuel-burning appliances
- Smoke Alarms – place near sleeping areas and on every level of the home
- Fire Extinguishers – place in the kitchen

Carbon dioxide
can lead to ~~hearing impairment~~
auditory processing delays
& speech disorders

Keep It Pest-Free

- Some pests are associated with asthma triggers/exacerbations
- Rat bites still a significant issue in the US
- Rodents associated with a number of diseases including histoplasmosis, hantavirus, plague, salmonella, and leptosporosis

Pesticides

- A number of health effects associated with pesticides
- Possible link between chronic exposure to pesticides and attention and behavioral problems and other neuropsychologic deficits
- Increased risk for developing asthma in children if exposed during first year of life
- Almost half of all households with children under five stored pesticides within reach of children
- In 2003, 113,000 cases of pesticide poisonings were reported

Who Are we Looking For?

- Rats and mice
- Roaches
- Fleas
- Bedbugs
- House flies
- Mosquitoes
- Dust Mites

Integrated Pest Management (IPM)

- Don't give them a hiding place
- Don't feed them
- Knock down the population

Keep It Safe

- Injury is the leading cause of death and disability among children and young adults
- No one plans for an accident but we can plan for prevention

Common Causes of Home Injury and Death

- Falls
- Poisoning
- Fires and Burns
- Choking and Suffocation
- Drowning
- Firearms

water should be less than 120°

Keep It Contaminant-Free

- ETS
- Pesticides
- VOCs
- It is easier to prevent exposure to contaminants than it is to remove them and treat their effects

Health Effects of ETS

- Increases number of episodes and severity of asthma symptoms
- Responsible for 150,000 to 300,000 lower respiratory tract infections in children less than 18 months of age
- 60% of the US population has biological evidence of exposure to second hand smoke
- Increased risk of acute and chronic disease

Health Effects of VOCs

- Eye, nose, throat irritation
- Headaches, nausea, decreased coordination
- Liver, kidney and brain damage
- Possible cancer
- Negatively impacts child development

What are VOCs

- Air Fresheners
- Cleaning Products
- Sprays and Coatings
- Formaldehyde
- Carpets
- Vinyl Floors
- Drywall
- Hobbies

Keep It Maintained

- Lead Poisoning
- Asbestos
- Radon
- Poor-quality, overcrowded multi-family homes are associated with increased aggression, withdrawal, and lower general health status
- Poor housing conditions are associated with increased risk for poor mental health

Green and Healthy Homes Initiative

- Public-private partnership that focuses on a national approach to improve housing especially in economically challenged communities
- Greener, safer, healthier homes leads to more stable housing, higher quality of life, better physical and mental health, and improved social and economic outcomes for families.

Intended Outcomes

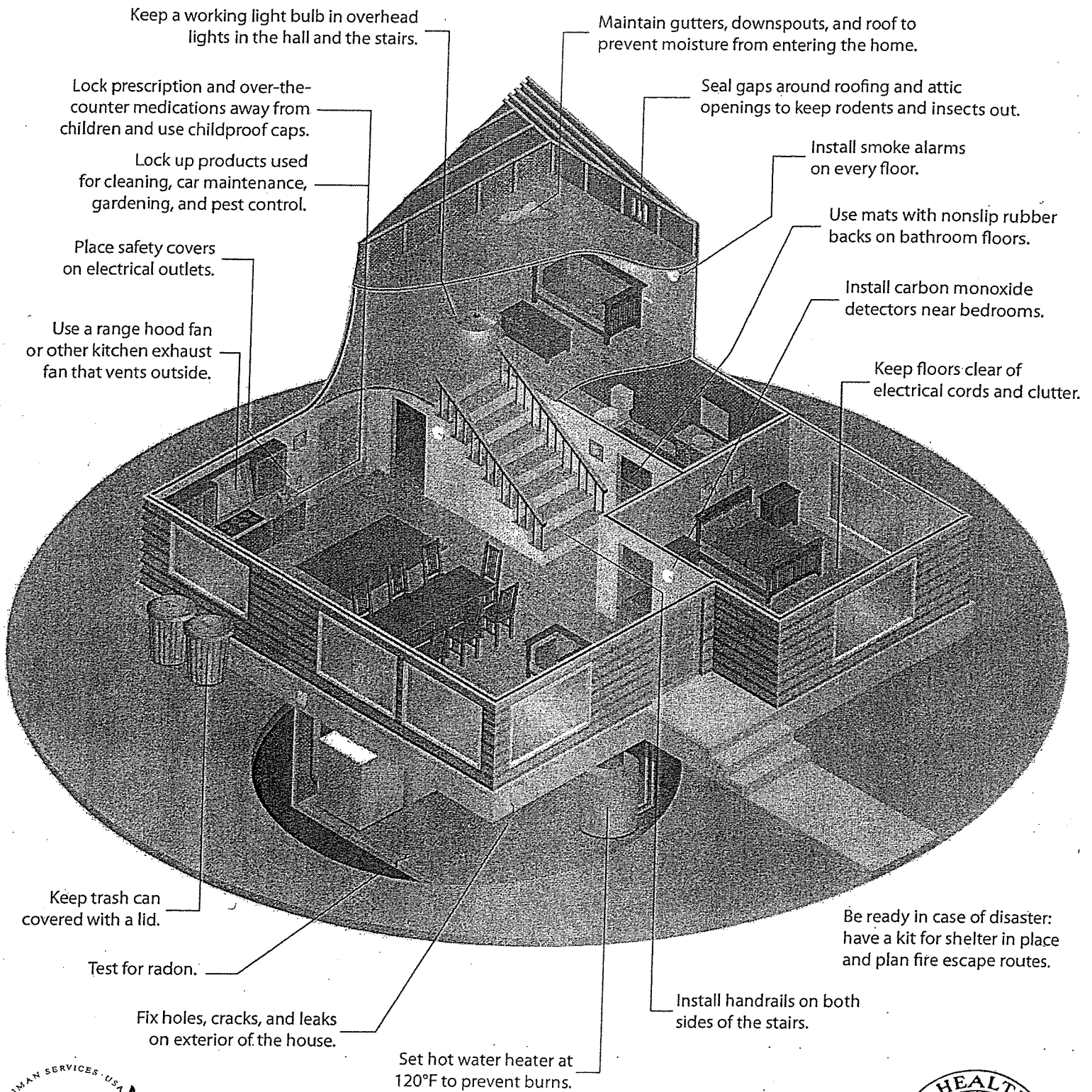
- Children and families are healthier and have brighter prospects for the future.
- Preventable medical costs are reduced
- Energy costs are reduced
- More sustainable housing is created
- More well-paying green sector jobs are created.

Resources

- www.cdc.gov
- www.michigan.gov/leadsafe
- www.epa.gov
- www.hud.gov
- www.ncch.org
- www.cehn.org

Questions?

A Healthy Home Checklist



For more information, visit <http://www.cdc.gov/healthyhomes> or <http://www.surgeongeneral.gov>.





A Healthy Home Checklist

Everyone can have a healthy home. This checklist and accompanying illustration show some key action steps to take in each room and area of the home.

Bedrooms, Living Rooms, and Family Rooms

- Install smoke and carbon monoxide alarms
- Do not smoke or allow anyone else to smoke in the home.
- If your home was built before 1978:
 - Test your home for lead paint.
 - Fix peeling or chipping paint using lead-safe work practices.
 - Use safe work practices when painting, remodeling, and renovating to prevent spreading lead dust.
- Keep floors clear of electrical cords and clutter.

Kitchens

- Never use the stove or oven to heat the house.
- Use a range hood fan or other kitchen exhaust fan that vents outside.
- Install smoke and carbon monoxide alarms.
- Use safe cleaning and pest control products.
- Stop cockroaches, ants, and mice without pesticides:
 - Keep them out – seal openings to the outside and between rooms.
 - Starve them – put away food, clean up, cover the trash and garbage.
 - Deny them water – fix leaks and wipe up spilled water.
 - When necessary, use closed baits, traps, and gels.
 - Never use bug bombs.

Bathrooms

- Install grab bars next to the bathtub and shower.
- Use mats with nonslip rubber backs on bathroom floors.
- Clean up moisture and mold safely.
- Use a bathroom exhaust fan that vents outside.

Attics

- Check for water leaks from the roof.
- Ensure proper ventilation to prevent moisture that can promote mold growth.
- Seal gaps around roofing and attic openings to keep rodents and insects out.
- Clean up clutter to deny rodents and insects places to nest.

Stairways and Halls

- Fix loose or uneven steps and rails.
- Attach stairway carpet firmly to every step—or remove carpet and attach nonslip rubber stair treads.
- Keep stairs free of clutter.
- Install handrails on both sides of the stairs.
- Keep a working light bulb in overhead lights in the hall and the stairs.

Basement, Crawl Space, Utility and Laundry Areas

- Set hot water heater at 120°F to prevent burns.
- Change furnace/AC filter regularly.
- Have gas appliances and furnaces checked yearly to make sure they don't release extra carbon monoxide.
- Make sure the clothes dryer vents outside.
- Test for radon. If there's a high level, hire a specialist to eliminate the hazard.

Outer Parts of House and Yard

- Keep pests away:
 - Fix holes, cracks, and leaks on exterior of the house.
 - Eliminate standing water and food sources.
 - Keep trash can covered with a lid.
- Remove shoes before entering the house to keep dirt containing lead and other toxins outside.
- Maintain gutters, downspouts, and roof to prevent moisture from entering the home.
- Use safe work practices when painting, remodeling, or renovating a home built before 1978.
- If you have a septic tank or private well, properly maintain it to prevent illness.
- Be ready in case of disaster: have a kit for shelter in place and plan fire escape routes.

Special steps to protect children:

- Make sure cribs, playpens, and play equipment are safe.
- Keep cribs free of soft objects or loose bedding.
- Use cordless blinds and shades, or tie the cords out of reach of children.
- Place infants on their back to sleep.
- Place safety covers on electrical outlets.
- Lock prescription and over-the-counter medications away from children and use childproof caps.
- Use stair gates at the top and bottom of stairs.
- Lock up products used for cleaning, car maintenance, gardening, and pest control.
- If you have a swimming pool, make sure you have proper fencing and gates around the pool.
- Complete a playground safety checklist if you have playground equipment in your yard.
- If a firearm is kept in the home, it should be stored unloaded and locked in a secure container—inaccessible to children.