

# A Guide to Healthy Homes

## for Medical and Health Professionals –

American Indian and Alaska Native Communities



- Covers the health issues and related needs of families and individuals
- Includes the Eight Principles of a Healthy Home



[www.hud.gov/healthyhomes](http://www.hud.gov/healthyhomes)



## Introduction

*“Many tribal communities have a traditional understanding of inter-dependent ties with the land, and it can be said that when the environment (dwelling) is “sick,” the people may become sick.*

*It is important to be aware of certain concerns when communicating with residents on the operation and maintenance of their home. Good housekeeping practices can alleviate many of the conditions associated with an “unhealthy home.”*

— National Tribal Air Association,  
in Letter to HUD’s Office of Lead Hazard Control and Healthy Homes

U.S. Department of Housing and Urban Development  
Office of Lead Hazard Control and Healthy Homes

April 2020



# Helping American Indians and Alaska Natives Have Safe and Healthy Homes

## **How do families know if they have a safe and healthy home?**

This guide will help community health and medical professionals gain a deeper understanding of potential hazards inside their resident's homes. Any one or combination of the hazards described, can be a cause for an intervention. Any family member can be a change agent and make a difference. Please be aware that the content of this publication is helpful to you and the residents you serve, but it is not intended to be, or impart, medical advice.

This guide's content was developed by the U.S. Department of Housing and Urban Development's Office of Lead Hazard Control and Healthy Homes (HUD/OLHCHH), in collaboration with the U.S. Department of Agriculture's National Institute of Food



and Agriculture (USDA/NIFA); the U.S. Environmental Protection Agency (EPA); and the U.S. Department of Health and Human Service (HHS), including the Indian Health Service (IHS). Housing offices are sometimes small, with staff wearing many hats. To help health professionals, three other companion publications were developed for tribal leaders, family members, and tribal decisionmakers. The OLHCHH website of [https://www.hud.gov/program\\_offices/healthy\\_homes/Tribal\\_Healthy\\_Homes](https://www.hud.gov/program_offices/healthy_homes/Tribal_Healthy_Homes) has two digital stories that relate directly to the health of Native Americans and their homes. The videos were provided, for the most part, by the Fort Peck Tribe in Montana.

HUD's Office of Native American Programs (ONAP) administers programs specifically targeted to Native Americans: American Indian, Alaskan Native, or Native Hawaiian individuals and families, and federally recognized tribal governments. A newsletter contains Federal News, Trainings, Funding Announcements for Tribes/Tribal Entities, a very extensive listing of resources as well as federal partners, and Tribal News. The ONAP website is [www.hud.gov/codetalk](http://www.hud.gov/codetalk).

HUD/OLHCHH also offers a publication called *Everyone Deserves a Safe and Healthy Home* that offers valuable supplemental information on the hazards covered here. This publication also highlights how a single unhealthy housing problem can produce multiple health effects. It is downloadable at [https://www.hud.gov/sites/documents/STAKEHOLDER\\_EDSHH.PDF](https://www.hud.gov/sites/documents/STAKEHOLDER_EDSHH.PDF).

Common indoor health concerns are lead hazard control, air quality, mold and moisture, pest management, and injury prevention.

A healthy home is one that is maintained to avoid injuries and illnesses to occupants. People spend more than 70% of their time in their homes and their home environment is an important determinant of health. Common indoor health concerns are lead hazards, air quality, mold and moisture, pest management, and injury prevention. **The Eight Principles of a Healthy Home** explain more about these and other hazards, and actions needed for prevention. Reduction of negative health impacts from improper ventilation and poor indoor air quality are especially serious concerns in many households.

A practical approach to implementing healthy homes for families is to facilitate cleaning and maintenance plans for each family and doing an overall home assessment related to the family's vulnerabilities and unique circumstances.

The home assessment and intervention process can begin the first time a health professional meets with a resident. Alternatively, referrals can be made by other professionals, residents, and others who call directly - because of a perceived health concern or problem.

In applying these core concepts to a home (educating residents), health practitioners must account for many things. Tribal traditions and cultures are diverse. Hazards can also vary widely by region, due to differences in climate, weather events, sizes and types of homes, building materials used, home construction techniques, and other factors. Local issues, such as local water quality, also can apply.

Some hazards, such as outside wells and soil in yards and around foundations, are outside the home but can greatly impact occupants. Technical materials and scientific research results are available on HUD's Healthy Homes website (weblink at [https://www.hud.gov/program\\_offices/healthy\\_homes](https://www.hud.gov/program_offices/healthy_homes)). Additional valuable resources are at the end of this publication.

## Who can use this guide?

- Clinicians
- Primary Health Care Providers
- Community Health Workers
- Nurse Practitioners



## The Eight Principles of a Healthy Home - The Cornerstone

HUD's Office of Lead Hazard Control and Healthy Homes defines [Eight Principles of a Healthy Home](#).

Briefly, they are:

- 1 Keep it dry:** Prevent water from entering the home through leaks in roofing systems, prevent rainwater from entering the home due to poor drainage, and check interior plumbing for any leaking.



- 2 Keep it clean:** Control the source of dust and contaminants, creating smooth and cleanable surfaces, reducing clutter, and using effective wet-cleaning methods.



- 3 Keep it safe:** Store poisons out of the reach of children and properly label. Secure loose rugs and keep children's play areas free from hard or sharp surfaces. Install smoke and carbon monoxide detectors and keep fire extinguishers on hand.



- 4 Keep it well ventilated:** Ventilate bathrooms and kitchens and use whole-house ventilation for supplying fresh air to reduce the concentration of contaminants in the home.



- 5 Keep it pest-free:** All pests look for food, water, and shelter. Seal cracks and openings throughout the home; store food in pest-resistant containers. If needed, use sticky-traps and baits in closed containers, along with least-toxic pesticides such as boric acid powder.



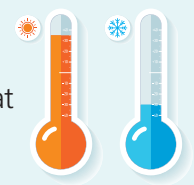
- 6 Keep it contaminant-free:** Reduce lead-related hazards in pre-1978 homes by fixing deteriorated paint and keeping floors and window areas clean using a wet-cleaning approach. Test the home for radon, a naturally occurring dangerous gas that enters homes through soil, crawlspaces, and foundation cracks. Install a radon removal system if levels above the EPA action level are detected.



- 7 Keep it well maintained:** Inspect, clean, and repair the home routinely. Take care of minor repairs and problems before they become large repairs and problems.



- 8 Keep it thermally controlled:** Houses that do not maintain adequate temperatures may place the safety of residents at increased risk from exposure to extreme cold or heat.





## 10 Tips for a Healthy Home You Can Use for Residents

1. If you think your child has been in contact with lead, contact your child's health care provider. They can help you decide whether to test your child's blood to see if it has high levels of lead. ([www.cdc.gov/nceh/lead/parents.htm](http://www.cdc.gov/nceh/lead/parents.htm)).
2. Never use a gas oven or cooktop to heat your home.
3. Ask your doctor about a home checklist for asthma triggers.
4. Open doors and/or windows to prevent mold from forming if the outside humidity is below 50%.
5. Do not allow smoking in your car or home.
6. Install smoke and carbon monoxide detectors or a combination.
7. Get your home tested for radon. High levels can be fixed with remedial measures.
8. Test well water and other water sources every two years.
9. Use mattress and pillowcase covers to protect from dust mites and wash them regularly.
10. While a space heater is in use, open a door from the room where the heater is located to the rest of the house and open a window slightly.

Also, here is a handy way to work closely with residents. The City of Fort Collins, Colorado, Healthy Homes program mission is to foster a healthier community by improving indoor air quality, and provide a safer home environment through volunteer based education. To this end, the **Do-It-Yourself Assessment Tool** (weblink at <https://healthyhomes.fcgov.com/>) Follows an intuitive design and is customizable. The tool facilitates interaction between healthy homes educators and residents about potential hazards in homes. To use, only a simple, password-protected "account" has to be created. This enables saving of results, and more.

Many tribal health workers have found that a disproportionate number of their patients exhibit infectious and/or chronic respiratory symptoms. While there is a genetic component, research indicates that environmental exposures associated with the indoor environment are strongly correlated with asthma, allergies, immune suppression, and infectious

respiratory conditions. As a medical or health professional, you have opportunities with residents to not only treat them for illness, but also inquire as to the cause which could be related to their home site.

The healthy home assessment process promotes the Eight Principles. The process identifies health and safety risks, during which you gather some basic but vital information about resident's home and housekeeping habits.

Some symptoms may only present themselves when the resident is at home. Or, the resident wakes up feeling worse and better after leaving the home.

## Reported health concerns are often of two types:

### Acute Symptoms:

Dry or burning mucous membranes in the nose, eyes, and throat; sneezing; stuffy or runny nose; fatigue or lethargy; headache; dizziness; nausea; irritability.

### Health Effects

Allergies, asthma, neurological, lethargy, infections, cancer.

To learn if the occupants' health concerns could be related to housing, conducting an environmental history is invaluable. The goal is to better understand more about resident activities and site concerns:



- The resident's physical surroundings
- The type, age, and condition of the home they live in. This includes:
  - The heating/cooling systems
  - Where the resident spends time
  - The resident's routine activities - for example, hobbies, chemicals used in and around the home, and occupations
  - Potential hazards, identity risks, and/or exposure times

The environmental history will help to determine if a home assessment is appropriate, necessary, or whether there are alternatives. For more about environmental histories and home assessments, please visit

<https://www.childrensmercy.org/in-the-community/healthy-home-program/>

or <https://envirn.org/wp-content/uploads/2017/03/davis-home-environmental-health-and-safety-assessment-tool.pdf>

## Special Concern:

### Particulate Matter, Vapor and Gases

Particulate matter, vapor, and gases from stoves, heaters, fireplaces and chimneys represent serious potential threats in tribal homes. Wood smoke can affect everyone, but children, teenagers, older adults, people with lung disease (including asthma and COPD), and people with heart disease are most at risk.

In addition to environmental tobacco smoke, unvented kerosene and gas space heaters, woodstoves, fireplaces and gas stoves can cause indoor air pollution. The major pollutants are carbon





Many household products release volatile organic compounds (VOCs) into the air.



Smoke from wood burning contains a mixture of gases and particulate matter (PM) that can cause health problems.

monoxide, nitrogen dioxide and particles. Unvented kerosene heaters may also generate acid monoxides.

Many household products, such as paints, cleaners, and air fresheners, release volatile organic compounds (VOCs) into the air. VOC levels can be up to ten times higher indoors than outdoors.

Residents exposed to VOCs may experience short-term health effects like headaches, nausea, or fatigue, or long-term health effects such as damage to liver, kidney, and central nervous system.

Smoke from wood burning contains a mixture of gases and particulate matter (PM) that can cause health problems such as burning eyes, runny nose, and illnesses such as bronchitis. The smoke contains several toxic air pollutants, including benzene, formaldehyde, acrolein and polycyclic aromatic hydrocarbons (PAHs).

**Checklist:** Here are some actions to encourage residents to take:

- Install smoke and carbon monoxide detectors.
- Never use a gas stove to heat the home.
- Install properly-sized cleaner-burning heating appliances such as: electric furnace, natural gas or propane stoves or EPA-certified wood and pellet stoves.
- While a space heater is in use, open a door from the room where the heater is located to the rest of the house and open a window slightly.
- Install and use exhaust fans that are ducted to the outside, over gas cooking stoves and ranges and keep the burners properly adjusted.
- Inspect central air handling systems, including furnaces, flues, and chimneys, annually, and promptly repair cracks or damaged parts.



**Special Concern: Are There Elders in the Resident's Home?**

Often, elders live with the family or nearby. The Centers for Disease Control and Prevention estimates that one in four older adults aged 65 years or older, fall each year. The majority of these falls occur in the home.

## Key Actions

- Encourage occupants to install grab bars in bathrooms and toilets.
- Check railings to make sure they are not loose.
- Check that there is adequate lighting throughout the house, unit, or building.
- Find temporary shelter for elderly or ill family members during extended periods of hot or cold indoor temperatures, if they are living in homes without adequate heating or cooling.

## Special Concern: Cigarette Smoking

Tobacco smoke, whether used for ceremonies or leisure, can cause severe problems for those who already have breathing problems. Cigarette smoke causes health problems, especially for people with asthma, and people who are not themselves smoking but are exposed to secondhand smoke in the air from other people's smoking. Smoke from tobacco products can create residue that sticks on surfaces; this residue is commonly referred to as thirdhand smoke.

Thirdhand smoke can be hard to remove because it can withstand vacuuming and wiping. It can irritate the airways of people with allergies or asthma and may be associated with long-term health problems such as cancer. All tobacco products such as cigarettes, e-cigarettes, hookah, and even smokeless tobacco can contribute to this harmful residue. Encourage residents to smoke outside and away from children.



### Sources of Often Overlooked Health Problems in Homes

- **Lead:** Was the home built before 1978? 1950?
- **Radon:** Was the home ever tested for radon?
- **Carbon Monoxide:** Do residents have a carbon monoxide detector?

### Sources of Often Ignored Health Problems

- **Environmental Tobacco Smoke:** Does anyone in the family smoke? Do they want help quitting?
- **Consumer Chemicals:** What cleaning chemicals are being used? Where are they stored?
- **Pesticides:** Are any pesticides used? Where are they stored?

## A Closer Look at Housing Health Hazards Typically Affecting Families

The most common healthy homes hazards are briefly described below. For a more in-depth view, *Everyone Deserves a Safe and Healthy Home: A Stakeholder Guide* (weblink at [https://www.hud.gov/sites/dfiles/HH/documents/STAKEHOLDER\\_EDSHH.PDF](https://www.hud.gov/sites/dfiles/HH/documents/STAKEHOLDER_EDSHH.PDF)) provides greater detail on these and other hazards. This guide also has a companion app, the *Healthy Homes Partners app* (weblink at <https://apps.apple.com/us/app/healthy-homes-partners/id1244368357>), which includes the same information as the guide and a room-by-room checklist.



Children should be screened with a blood lead test at ages 12 months and 24 months old, or, if they have not previously been screened, within the 36 to 72 months old period.

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### Lead

In line with the CDC's recommendation, HUD/OLHCHH recommends that children, especially children enrolled in Medicaid, should be screened with a blood lead test at ages 12 months and 24 months old, or, if they have not previously been screened, within the 36 to 72 months old period. Of course, if a child has an elevated blood lead level, their healthcare provider will decide how much more frequently the child should be tested.

Prevention of lead exposure can be done by testing paint and dust in homes built before 1978, and bare soil on the property, determining if residents are exposed via paint chips, plumbing, dust, toys, blinds, pottery, etc., wherever they spend the majority of their time (e.g., in other care providers' homes with grandparents or relatives; outdoors). Once the sources of lead are identified, then lead exposure can be reduced through keeping family members away from the sources.

Additional help, for both the general public and professionals, is available by calling the National Lead Information Center. This toll-free telephone hotline is maintained by the US Environmental Protection Agency and HUD/OLHCHH, at **1-800-424-LEAD (5323)**. For persons with hearing or speech difficulties, dial 711, the FCC's Telecommunications Relay Service number ([www.fcc.gov/consumers/guides/711-telecommunications-relay-service](http://www.fcc.gov/consumers/guides/711-telecommunications-relay-service)) (TTY 711).



## Indoor Air Quality

People spend the majority of time indoors, making Indoor Air Quality (IAQ) and the reduction of pollutants in the home vital. IAQ is a critical issue facing many families today and improving IAQ can result in significant improvements in occupants' health. This can decrease medical costs and greatly improve quality of life.

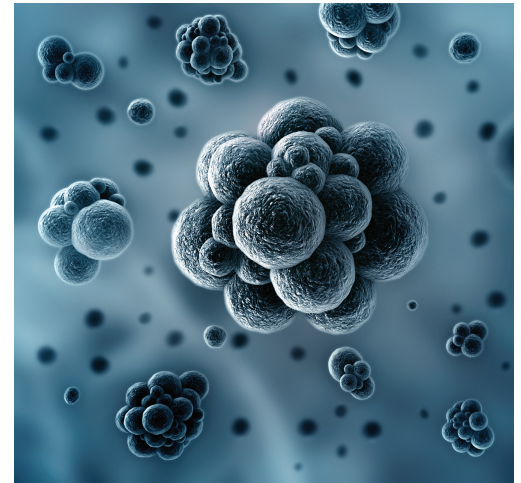
Common air quality concerns include smoke, road dust, mold, carbon monoxide, and others. Indoor air pollutants can come from the off-gassing of Volatile Organic Compounds (VOC) from chemicals and engines within the home, household cleaners, or contaminants tracked into the home.

Babies, young children, elders, and people with compromised respiratory systems are at greater risk of irritation and respiratory illness from poor indoor air quality and indoor pollutants. Irritation from indoor air quality and indoor pollutants can present itself in many different ways, including cough, cold, allergic reaction, sinus issues, asthma attacks, and general breathing problems.

## Asthma

Exposure and sensitization to indoor allergens and irritants are factors in the development and exacerbation of asthma. Disparities in the effects of asthma may be due to disproportionate exposure to indoor environmental asthma triggers associated with substandard housing,

among other risk factors. Residents have been shown to improve their asthma management, reduce exposure to triggers, and decrease symptoms as a result of home-based multi-trigger, multicomponent interventions with an environmental focus conducted by health professionals, like Community Health Representatives.



Alaska Native children living in rural southwest Alaska experience some of the highest reported rates of hospitalisation from lower respiratory tract infections (LRTIs) [1].

The pneumonia hospitalisation rate for infants from Alaska's southwest Yukon Kuskokwim (YK) Delta region is tenfold higher than for other US infants [1].

Bronchiectasis, a chronic lung sequela of early and severe pneumonia, has nearly disappeared from the developed world, but is still frequently seen among southwest Alaska Native children [2,3].

Previous research demonstrates that substandard indoor air quality (IAQ) and inadequate housing lead to increased and more severe respiratory disease [4–8].

Inadequate housing conditions in southwest Alaska can negatively affect IAQ [3,9–11]. Household crowding, indoor smoke, lack of piped water and poverty have been independently associated with LRTIs. These factors are more common in rural southwest Alaska than in the general US population [12–14], and help explain the disparity in LRTIs and chronic lung sequela in children from this region.

Source: Singleton, R., et al. Impact of home remediation and household education on indoor air quality, respiratory visits and symptoms in Alaska Native children



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## Mold and Moisture

Mold indicates a moisture problem. The key to mold control is moisture control. Ideally, humidity should be between 30-50% inside the home. Molds are a part of the natural environment and are present nearly everywhere. Spores grow when they have moisture and a food source. Mold spores can irritate the lungs, especially those with a compromised respiratory system. If visible mold growth is present, sampling or testing is unnecessary. No

EPA or other federal limits have been set for mold or mold spores.

The health effects of mold are often tied to allergies and sensitivity. The majority of residents are not born with an allergy or sensitivity to mold, but develop these responses after chronic exposure. This is particularly pervasive in tribal communities where mold is prevalent. Sensitization is common in the mold-impacted tribal housing units, as the mold contamination is often present for years before it is treated.



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## Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless, and poisonous gas produced by the incomplete burning of solid, liquid, and gaseous fuels. Appliances fueled with natural gas, liquefied petroleum, oil, kerosene, coal, charcoal, or wood may produce CO. If these appliances are used in the home, a CO detector/alarm that meets the current UL standard 2034

(check the package) or the IAS 6-96 standard should be properly installed and maintained.

A CO detector/alarm can provide added protection but is no substitute for proper operation and maintenance of CO producing appliances. The symptoms of CO poisoning are frequently mistaken for the flu and many people don't even know they've been breathing in CO. If the family can afford one, a combination smoke detector and carbon monoxide detector is preferred.

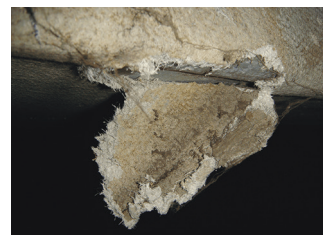
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## Asbestos

Asbestos, like lead, was banned from usage in homes and buildings in the 1970s but may be still present in older homes. It is especially crucial that loose asbestos not be inhaled or touched.

Asbestos can cause very serious long-term health problems such as lung disease and cancer.

Common uses in the past were to insulate pipes and attics. It also could be used in or around floor tiles, sheet vinyl flooring, cement shingles or roofing, plaster and joint compounds, and gaskets. Since asbestos fibers are very light and easily carried through the air, they can be inhaled without a person realizing it. The asbestos remains in the lungs. Smokers have a higher risk from asbestos exposure. Removal should be done by a licensed professional.



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## Drinking Water

A potable water source should be used to drink, prepare food and baby formula, bathe, and clean with. Drinking water may become non-potable for a variety of reasons like contamination of a well or water system disruptions. Contaminants may be bacteria, viruses, nitrate, lead or copper, among other secondary pollutants like odor and color.

Consumers should know where their water comes from (i.e. source). If it is a private well, residents should have it tested for disease-causing bacteria and other contaminants annually and protected.







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## Hazardous Household Products

Many products found in the home, like cleaners and medications, make life convenient so it can be easy to forget that seemingly harmless materials can be toxic if used incorrectly. Bleach, cleaners, fuels, batteries, oil, wood or metal polish, drain cleaners, shoe polish and many other materials should be correctly labeled, properly stored, and used according to manufacturer's instructions to prevent exposure from misuse or consumption.

Secure and proper storage cannot be over-emphasized. Medication overdoses, whether intentional or unintentional, are considered poisonings. **The National Poison Help Line is 800-222-1222 (TTY 711)** and will automatically redirect calls to your regional poison control center.



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## Pesticides

Pesticides and other household chemicals including bug spray, pet flea/tick collars, rat poison, weed killer, and others are frequently misused, and accessible to children. They should be correctly labeled, properly stored, and used according to manufacturer's instructions. Additional precautions like wearing gloves or eye protection may be required. Making pesticides inaccessible to children and used according to the manufacturer's instructions are important steps to preventing exposure.



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## Home Safety

Falls, crashes, fires, brain injuries, choking, violence, suicide, firearms, drowning and more are very significant public health burdens that can all be prevented. Interventions and behaviors that may be considered common sense cannot be reinforced enough; hand washing; eye exams, removing trip hazards; walk on sidewalks when possible and be seen using lights and/or reflective clothing; supervise children when playing or swimming; ensure operable smoke alarms are installed and have a home fire escape plan; learn first aid and CPR.

## Temperature Control

Every home needs to be temperature controlled in order to ensure that families are safe from extreme temperatures and are comfortable. Homes that are not may place the family, especially the elderly and ill family members, at increased risk.

A home's heating and cooling system should provide a stable temperature that also prevents excessive moisture, heat and cold. The heating and air conditioning systems should be serviced yearly by a qualified professional. Air filters should be cleaned or changed when dirty (usually every three (3) months). Families with pets or smokers should change filters more frequently. Also, consider having a home energy audit from the local utility company or local housing agency. During cold or heat spells, temporary shelter may be needed for tribal Elders or ill family members.



## Radon

Radon comes from the natural radioactive breakdown of uranium and other radioactive elements in soil, rock, and water. Radon is most commonly found in soil, clay or rock from around and underneath a home's foundation. It can cause lung cancer, when inhaled. Some areas of the United States have higher levels of radon than others. Homes should be tested for radon. If the home tests high for radon (a reading of 4 or higher), a licensed or certified radon professional should be contacted. (See [www.epa.gov/radon](http://www.epa.gov/radon).)



## Tribal Healthy Homes Project

To help address indoor radon concerns and to establish a baseline of general housing conditions, two northern pueblo communities partnered with the Albuquerque Area Southwest Tribal Epidemiology Center (AASTEC) located in Albuquerque, New Mexico. AASTEC epidemiologists collaborated with the health and community services, Indian Health Service Environmental Health Department, health boards, environmental services departments, one housing authority, and the community health representative (CHR) programs in both pueblo communities to help develop an extensive spatial database. AASTEC geospatially mapped homes, measured their indoor radon concentrations, and recorded general housing conditions. Prior to the Tribal Healthy Homes Project, each community expressed a desire to apply for environmental health grants. However, existing data were limited on indoor radon measurement as well as current housing conditions. Therefore, this project provided an ideal opportunity for each community to customize and develop a survey of housing attributes and indoor air quality levels; with the end result of an indoor radon dataset as well as in-depth home assessments.

SOURCE: <https://tribalepicenters.org/blog/2018/01/31/aastec-success-story-january-2018/>



## Special Concern: Educating Family Members on Substance Abuse and Addiction

Although not strictly a housing maintenance problem, substance abuse in homes, include methamphetamine (meth), opioid addiction, and alcohol, poses many dangers and can destroy lives.

There is grave concern for the health of family members living in a meth-contaminated home. Many occupants are not aware of the severe impact /damage that meth has on the safety, security, and health of the residents; nor on the viability of the home. Smoking meth in a home can infiltrate the HVAC system, walls, carpets, and furniture. It is costly to remediate.

Young children are particularly vulnerable when they crawl around the home. Meth labs create significant environmental hazards. In addition to having detrimental impacts on the health of family members, it is also extremely costly to remove the contaminants.

In addition to providing resources to the addict, family members need resources as well. Family members are the change agents, and if you help them, lives can be saved. Meth testing kits, from local health departments, are increasingly available to home buyers, renters, and many others. Some resources are: **National Helpline** of the U.S. Substance Abuse and Mental Health Service Administration (SAMHSA), at **1-800-662-HELP (4357)**; Voluntary Guidelines for Methamphetamine Laboratory Cleanup at <https://www.drugabuse.gov/patients-families> and [https://www.epa.gov/sites/production/files/documents/meth\\_lab\\_guidelines.pdf](https://www.epa.gov/sites/production/files/documents/meth_lab_guidelines.pdf).



## For Tribal Residents Living in Manufactured or Mobile Homes

Some community residents may come into the clinic and focus on their activities or routines when describing ailments, but possibly the real culprit from chronic health problems may be environmental. With many people spending at least a half of their day in the home, it may be



that the respiratory issue or fatigue tribal members feel may be directly related to their home.

Some lower income residents may live in a mobile home. With the construction methods, health-related professionals must consider possible moisture problems – which can also produce respiratory issues.

Though lead paint may not be a problem (but lead in water may be one), building materials might separate and cause health complications for toddlers and young children who spend much of their time on the floor or cruising window sill areas. Be sure when asking questions on the intake form when the last time resident’s furnace filters were changed, or fuel lines were checked, to avoid VOCs from being present.

If symptoms seem to suggest carbon monoxide poisoning, be sure to ask if propane is the primary fuel for cooking/heating and if the flue on the mechanical equipment has been professionally checked for leaks. While beginning the examination, ask residents if they have skirting around the belly of the trailer and if so, have they tested for radon. Due to the frequency of fires in mobile homes, ask if residents have fire detectors.

## When A Natural Disaster Occurs

**H**ealth care professionals can be involved in rebuilding communities after natural disasters. Consequently, it is important to know that a home damaged by floods is likely to pose serious health risks. These typically stem from mold, polluted water, and many other unsafe conditions. Storm damaged homes are dangerous.

HUD’s *Rebuild Healthy Homes Guide to Post-Disaster Restoration for a Safe and Healthy Home* covers restoration “A-Z” in plain language. An app, based on the publication, is available at: <https://apps.apple.com/us/app/rebuild-healthy-homes/id980660616>.

Wild fires are prevalent in some parts of the country. You should advise your patients to pay attention to air quality reports. The Air Quality Index (AQI) uses color-coded categories to report when air quality is good, moderate or unhealthy.

Use common sense. If it looks and smells smoky outside, it is probably not a good time to go for a jog, mow the lawn or allow children to play outdoors.

Individuals with asthma or other respiratory or lung conditions should follow their provider's directions on taking medicines. They should



Air Quality Index Levels of Health Concern	Numerical Value	Meaning
Good	0-50	Air quality is considered satisfactory, and air pollution poses little or no risk.
Moderate	51-100	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups	101-150	Members of sensitive groups may experience health effects. The general public is not likely to be affected.
Unhealthy	151-200	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	201-300	Health alert: everyone may experience more serious health effects.
Hazardous	> 300	Health warnings of emergency conditions. The entire population is more likely to be affected.

call their provider if symptoms worsen.

If a person has heart or lung disease, is an older adult, or has children, they should talk with their provider about whether and when they should leave the area. When smoke is heavy for a prolonged period of time, fine particles can build up indoors even though a person may not see them.

## Summary

This guide has covered many ways that health workers and health professionals serving Native Americans can help implement healthy homes practices.

It is important to know who your local tribal healthy homes partners are. Collaborate with them. Refer residents to these specialists, who may be able to help tribal members to a healthy home. Tribal healthy homes partners may include: a housing authority; a health authority; an environmental protection program; and/or community health representatives.

To recap, here are some basic actions that health-related professionals can take to help residents. As a medical or health professional, you can enhance residents' awareness of how the home environment can affect their health and guide them to make their homes healthier.

## A Path to a Healthy Home

### 1 Step 1 If an assessment is recommended, prepare for hazard identification at the family's home

- Learn and know healthy homes terms, hazards and attributes.
- Establish a clear purpose for the assessment.
- Make initial contact with family/ individual - collect general information. Gather information about resident's home and behaviors.
- Learn about health history as appropriate.
- Formulate initial hypotheses.
- As an option, your residents can use the online *Healthy Homes Do-It-Yourself Assessment (DIY) Tool* at Fort Collins DIY Home Assessment (weblink at <https://www.fcgov.com/healthyhomes/>)

### 2 Step 2 Apply exposure assessment and risk criteria

- Conduct a site visit or walk-through, or provide family with an organization that routinely conducts assessments.

- Qualitative and Quantitative Assessment. Determine if basic, intermediate or advanced assessment is needed.
- Risk criteria for assessing can be either health or environment based, preferably both.
- Encourage and facilitate a cleaning plan for families, based on the overall assessment related to their vulnerabilities.
- Look for and educate residents on keeping the home dry and well ventilated; will involve counseling and referrals.
- Generate assessment report with actions.
- Use resources such as the EPA/ HUD National Lead Information Center **1-800-424-LEAD (TTY 711)**.

### 3 Step 3 Other potential follow ups

- Continue to educate for healthy homes practices.
- Reach out to and work with other professionals to integrate healthy home principles into housing.



## Room by Room Checklist for a Healthy Home

This checklist is a great way to learn more about health related hazards in homes. For medical and health professionals, it can be used to establish a healthy homes assessment protocol with the families you serve. For more information on this material and recommended actions please visit [www.hud.gov/healthyhomes](http://www.hud.gov/healthyhomes) or download the Healthy Homes Basics App to have as a resource at your fingertips whenever you are ready.

### 1. Living, Dining, and Family Rooms

- If the home was built before 1978, check painted doors, windows, trim, and walls for lead
- Vacuum carpets regularly to reduce asthma triggers
- Replace corded blinds with un-corded (pole) blinds, or move window blind cords out of reach of children to prevent strangulation
- Check lighting and extension cords for fraying or bare wires
- Avoid having lighting and extension cords in floor pathways
- Purchase children's toys that do not have small parts for choking and do not contain lead
- Secure heavy items (televisions, bookcases) to walls to prevent tip overs

### 2. Kitchen

- If the home was built before 1978, check painted doors, windows, trim, and walls for lead
- Use a range hood exhausted to the outside (or open window) to ventilate while cooking
- Clean up liquids and foods right after spills
- Keep matches, glassware, knives, and cleaning supplies out of reach of children

- Avoid leaving food and water out overnight
- Mop floors at least weekly
- Place Poison Control Hotline number (800) 222-1222 on the refrigerator and in every room (TTY 711)
- Do not allow children to be in kitchen unsupervised when the range or oven is on

### 3. Bedroom(s)

- If the home was built before 1978, check painted doors, windows, trim, and walls for lead
- Replace corded blinds with un-corded (pole) blinds, or move window blind cords out of reach of children to prevent strangulation.
- Make sure room has a working smoke detector
- Make sure the hall outside of bedrooms has a working carbon monoxide detector.
- Use mattress and pillow covers, and vacuum carpets regularly to reduce asthma triggers

### 4. Entry

- Use floor mats by entry doors to reduce bringing lead dust and other toxins into the home
- Remove shoes at entry if lead is present in the soil or paint

- ❑ Repair or install weather seals around the perimeter of doors

## 5. Bathrooms

- ❑ If the home was built before 1978, check painted doors, windows, trim, and walls for lead
- ❑ Use an exhaust fan to ventilate after shower or bath use
- ❑ Use slip resistant mats in showers and tubs
- ❑ Clean up water from floors right after spills
- ❑ Keep medicines and cleaning supplies locked away and out of reach of children
- ❑ If an older adult or someone with mobility or balance concerns is present in the home, install grab bars at toilets, showers, and tubs

## 6. Laundry

- ❑ Vent clothes dryer to the outside (through roof or wall, not into the attic)
- ❑ Keep laundry soaps and detergents out of reach of children
- ❑ Wash sheets and blankets weekly to reduce asthma triggers
- ❑ Regularly remove lint from dryer screen

## 7. Attic

- ❑ Clean up clutter to prevent rodents and insects from finding places to nest
- ❑ Check exposed attic insulation for asbestos and consult with an asbestos professional for removal
- ❑ Make sure eave and roof vents are not blocked with insulation

## 8. Basement (or Crawlspace)

- ❑ If the home was built before 1978, check painted doors, windows, trim, and walls for lead

- ❑ Seal holes in walls and around windows and doors to keep rodents and pests out of living spaces

- ❑ Clean up clutter to prevent rodents and insects from finding places to nest

- ❑ Test the home for radon. If test shows radon above EPA action levels, seal slab and foundation wall cracks, and if the problem persists, consider installing a radon mitigation system

- ❑ Keep pesticides and cleaning supplies locked away and out of reach of children

- ❑ Seal all cracks in slabs and foundation walls for moisture, radon, and pest protection

## 9. Garage

- ❑ Never run lawnmowers, cars, or combustion equipment inside the garage even if the garage door is open

- ❑ Keep gasoline, pesticides, and cleaning supplies out of reach of children

- ❑ Clean up oil, gasoline, and other spills immediately. Hardware stores sell products that can absorb the spill safely.

- ❑ If a floor drain is present, make sure it drains to well beyond the outside of the home

## 10. Outside

- ❑ If the home was built before 1978, check painted doors, windows, trim, and walls for lead

- ❑ If painted walls, doors, windows, or trim may contain lead, keep children away from peeling or damaged paint and prevent children from playing around the ground next to the walls

- ❑ Remove leaves and debris from gutters regularly and extend downspouts to drain away from the house

- ❑ Replace missing or broken shingles or flashings

- Clean window wells of trash and debris
- Install and maintain fences completely around pools with openings less than 1/4 inch
- If the home was built before 1978, check hardboard siding for asbestos
- Make sure private wells are sealed and capped
- Consider testing well for pesticides, organic chemicals, and heavy metals before you use it for the first time
- Test private water supplies annually for nitrate and coliform bacteria
- Do not leave open garbage containers near the home
- Repair broken glass in windows and doors
- Seal holes in walls and around windows and doors to keep rodents and pests out of living spaces
- Do not use candles or incense in the home when adult supervision is not present
- Secure balcony and stair railings, and install no-slip nosings
- Replace burned-out bulbs in lights over stairs and landings
- Run a dehumidifier if indoor humidity is above 50 percent or there is condensation on windows
- Make sure all gas burning appliances, furnaces, heaters, and fireplaces ventilate to the outside
- Replace the furnace filter with a MERV 8 or higher every three months
- If mold is visible in any room, refer to mold removal guidelines from the EPA, CDC, or HUD
- Install child-proof locks on cabinets and child-proof covers on electrical outlets
- Keep water temperature at less than 120 degrees
- Keep firearms in locked safes
- Use pest management recommendations or safer alternative products before applying pesticides
- Keep all cleaning products in original containers and do not mix two products together
- Keep all hazardous products and chemicals in locked cabinets away from children.

### 11. General

- If the home was built before 1978, use lead-safe work practices for all renovation and repairs and test children in the home for lead exposure
- Check piping connecting the home to the water main and the piping in the home for lead (lead pipes are dull and can be scratched easily with a penny). Lead pipes are more likely to be found in homes built before 1986
- No smoking inside the home
- Have a professional maintain yearly all gas appliances and check for carbon monoxide leaks and proper venting



## Important Resources

This is a selection of a wide range of organizations, websites, and educational materials, that expand upon this publication. Visit OLHCHH's website at [https://www.hud.gov/program\\_offices/healthy\\_homes/Tribal\\_Healthy\\_Homes](https://www.hud.gov/program_offices/healthy_homes/Tribal_Healthy_Homes) to view tribal healthy home digital stories. These relate directly to the health of Native Americans by addressing the health of their homes. Each story provides a history about the importance of traditional housing and what the "home" traditionally means.

### Overview:

***The Healthy Homes Program Guidance Manual*** (July 2012): This comprehensive manual (260 pages) was developed by HUD/OLHCHH and many select partners and offers guidance and tools to help users establish or improve healthy homes/housing programs. It provides a broad range of practical information that will be of interest to organizations, programs, and individuals concerned about the need for healthy housing. The content takes into account that no "one size fits all" in designing healthy homes programs at the local level. [https://www.hud.gov/sites/documents/HHPGM\\_FINAL\\_CH1.PDF](https://www.hud.gov/sites/documents/HHPGM_FINAL_CH1.PDF).

### ***Tribal Green Building Toolkit (2015)***

This publication (160 pages) is designed to help tribal officials, planners, architects, builders, housing developers, community members, and others develop and/or adapt building codes to support green building concepts and practices. Tribes with and without building codes can utilize the toolkit. The toolkit was created by the U.S. Environmental Protection Agency, with extensive involvement and contributions of Native Americans.

The implementation of "green building" offers a significant opportunity to revitalize sustainable cultural practices, by integrating with tribal traditions and values. Tribes can help maintain natural resources that historically sustained them, through these green building codes. This product can be downloaded at: <https://www.epa.gov/green-building-tools-tribes/tribal-green-building-toolkit>

### **HUD/OLHCHH Hazard-Specific Factsheets:**

- **Asbestos:** <https://www.cancer.gov/about-cancer/causes-prevention/risk/substances/asbestos/asbestos-fact-sheet>
- **Asthma:** [https://www.hud.gov/program\\_offices/healthy\\_homes/healthyhomes/asthma](https://www.hud.gov/program_offices/healthy_homes/healthyhomes/asthma)
- **Allergy:** [https://www.hud.gov/program\\_offices/healthy\\_homes/healthyhomes/allergies](https://www.hud.gov/program_offices/healthy_homes/healthyhomes/allergies)
- **Home Safety:** [https://www.hud.gov/program\\_offices/healthy\\_homes/healthyhomes/homesafety](https://www.hud.gov/program_offices/healthy_homes/healthyhomes/homesafety)
- **Mold:** [https://www.hud.gov/program\\_offices/healthy\\_homes/healthyhomes/mold](https://www.hud.gov/program_offices/healthy_homes/healthyhomes/mold)
- **Lead:** [https://www.hud.gov/program\\_offices/healthy\\_homes/healthyhomes/lead](https://www.hud.gov/program_offices/healthy_homes/healthyhomes/lead)

- **Radon:** [https://www.hud.gov/program\\_offices/healthy\\_homes/healthyhomes/radon](https://www.hud.gov/program_offices/healthy_homes/healthyhomes/radon)
- **Carbon Monoxide:** [https://www.hud.gov/program\\_offices/healthy\\_homes/healthyhomes/carbonmonoxide](https://www.hud.gov/program_offices/healthy_homes/healthyhomes/carbonmonoxide)

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## Interactive Healthy Homes Apps

- **Healthy Homes Basics App:** This HUD/USDA product is for the general public. It introduces users, in clear terms, to healthy homes concepts. Content also covers many ways to have a healthy home. Download the app at <https://apps.apple.com/us/app/healthy-homes-basics/id1092367352>.
- **Healthy Homes Youth App:** This HUD/USDA product is for middle schoolers and helps them learn about healthy homes. Available at <https://itunes.apple.com/us/app/healthy-homes-youth/id1434450117?mt=8>.
- **Healthy Homes Do-It-Yourself Assessment Tool:** The Healthy Homes Do-It-Yourself Assessment Tool walks users through each room and provides a simple, low, and no-cost solution to many common healthy housing problems. <https://healthyhomes.fcgov.com/>.
- **Healthy Homes Partners App:** This HUD/USDA product is for stakeholders. It is non technical but goes beyond the above consumer version. <https://itunes.apple.com/us/app/healthy-homes-partners/id1244368357?mt=8>.

## Key Hotlines

All the phone numbers below may also be reached by people who are deaf or hard of hearing, or who have speech disabilities, by teletype at 711.

- **Poison Control Centers,** (800) 222-1222
- **HUD and EPA National Lead Information Center,** 1-800-424-LEAD, (800) 424-5323
- **EPA Safe Drinking Water Hotline,** (800) 426-4791
- **National Pesticide Information Center,** (800) 858-7378
- **FDA, Food Safety Information Service Hotline,** (888) SAFE-FOOD, (888) 723-33663
- **Centers for Disease Control and Prevention (cigarette smoking),** 1-800-QUIT-NOW, or (800) 7848-669
- **National Radon Information,** (800) SOS-RADON, (800) 767-7236
- **Window Covering Safety Council,** (800) 506-4636

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## General Safe and Healthy Homes Information Sources (for both the public and professionals)

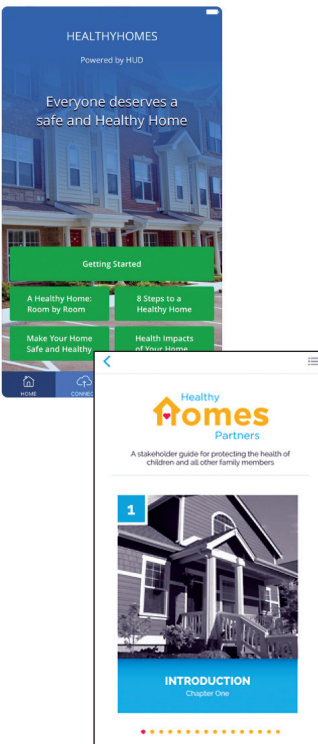
- **Indian Health Service,** [www.ihs.gov/](http://www.ihs.gov/)
- **IHS' local Urban Indian Health Program,** [www.ihs.gov/urban/nationalprograms/](http://www.ihs.gov/urban/nationalprograms/)
- **Tribal Healthy Homes Network,** <http://thhnw.org/>

- Institute for Tribal Environmental Professionals, [www7.nau.edu/itep/main/Home/](http://www7.nau.edu/itep/main/Home/).
- Tribal Public and Environmental Health Think Tank, <https://www.apha.org/topics-and-issues/environmental-health/partners/think-tank>.
- Tribal Epidemiology Centers, <https://tribalepicenters.org/>.
- Indian Health Service, <https://www.ihs.gov/dehs/>.
- Local or state health department
- U.S. Department of Housing and Urban Development, [www.hud.gov](http://www.hud.gov).
  - Office of Lead Hazard Control and Healthy Homes, <https://www.hud.gov/healthyhomes>.
  - Office of Native American Programs, [www.hud.gov/codetalk](http://www.hud.gov/codetalk).
- U.S. Department of Agriculture, National Institute of Food and Agriculture, <https://nifa.usda.gov/>.
  - Cooperative Extension Service for Healthy Homes Extension educators, <https://nifa.usda.gov/extension> or <https://impact.extension.org/>.
  - National Healthy Homes Partnership, <https://extensionhealthyhomes.org/>
- U.S. Environmental Protection Agency, [www.epa.gov](http://www.epa.gov).
- U.S. Centers for Disease Control and Prevention, [www.cdc.gov](http://www.cdc.gov), (800) 232-4636
- U.S. Consumer Product Safety Commission, [www.cpsc.gov](http://www.cpsc.gov), (800) 638-2772
- U.S. Department of Energy, [www.energy.gov](http://www.energy.gov).
- National Center for Healthy Housing, <https://nchh.org/>
- Children’s Environmental Health Partnership, <https://cehn.org/>.
- National Safety Council, <https://www.nsc.org/>.
- Pediatric Environmental Health Specialty Units, <https://www.pehsu.net/>.
- National Tribal Air Association, <https://www.ntaatribalair.org/>

## Lead

There is no safe level of lead in blood. Even low levels of lead can affect a child’s IQ, ability to pay attention, and academic achievement. A blood lead level of 3.5 micrograms per deciliter or greater identifies a child who has been highly exposed to lead. Lead can be found in various places. The *Protect Your Family from Lead* (from HUD, EPA, and the CPSC) booklet has tips to help you protect your family from exposure to lead: <https://www.epa.gov/lead/protect-your-family-lead-your-home>.

The U.S. Food and Drug Administration (FDA) and Consumer Product Safety Commission (CPSC) issue recall alerts when unsafe levels of lead are detected in food items, children’s toys, or other products. More information is available on the FDA recalls (<https://www.fda.gov/safety/recalls-market-withdrawals-safety-alerts>) and CPSC recalls (<https://www.cpsc.gov/recalls>) online.



**Healthy Homes Principles:** The Healthy Homes Principles serve as a guide for addressing many of the topics discussed in this booklet. The *Everyone Deserves a Safe and Healthy Home* guides summarize the Healthy Homes Principles and have room-by-room checklists:

- For a quick but thorough overview of healthy homes, [Everyone Deserves a Safe and Healthy Home: A Consumer Action Guide](https://www.hud.gov/sites/documents/SAFEANDHEALTHYHOME.PDF) (weblink at <https://www.hud.gov/sites/documents/SAFEANDHEALTHYHOME.PDF>) is a 12-page booklet written for the general public. It outlines the eight principles of healthy housing and provides a useful overview of key healthy homes issues, including lead-based paint, asthma and allergies, mold and moisture, radon, household chemicals, pests, carbon monoxide, home safety, asbestos, home temperature control, and indoor air quality.

For each hazard, this publication provides critical action steps. It also includes a room-by-room checklist. Housing counselors can use this guide to educate themselves and their clients. For those who prefer an online resource, the [Healthy Homes Basics App](https://apps.apple.com/us/app/healthy-homes-basics/id1092367352) (weblink at <https://apps.apple.com/us/app/healthy-homes-basics/id1092367352>) teaches the same information in an interactive format and provides quizzes to reinforce key messages.

- For a more in-depth view, [Everyone Deserves a Safe and Healthy Home: A Stakeholder Guide](https://www.hud.gov/sites/documents/STAKEHOLDER_EDSHH.PDF) (weblink at [https://www.hud.gov/sites/documents/STAKEHOLDER\\_EDSHH.PDF](https://www.hud.gov/sites/documents/STAKEHOLDER_EDSHH.PDF)) is a 40-page guide that provides additional detail on each of the hazards described in the Consumer Action Guide. It is written for stakeholders, such as such as medical and health professionals, that assist people in maintaining and improving their safety and health. This guide also has a companion app, the [Healthy Homes Partners app](https://apps.apple.com/us/app/healthy-homes-partners/id1244368357), (weblink at <https://apps.apple.com/us/app/healthy-homes-partners/id1244368357>) which includes the same information as the guide and a room-by-room checklist.
- The [Protect Yourself from Lead in Your Home](https://www.epa.gov/lead/protect-your-family-lead-your-home) (weblink at <https://www.epa.gov/lead/protect-your-family-lead-your-home>) pamphlet was created specifically to educate homebuyers and renters about lead-based paint and the protections provided by federal law. It is available in several languages, and it walks through the key things a homebuyer or renter must know about lead-based paint, the rules that protect consumers from lead-based paint, and the measures people can take to protect themselves from lead exposure.

- HUD and EPA National Lead Information Center, (800) 424-LEAD, (800) 424-5323
- U.S. Environmental Protection Agency, <https://www.epa.gov/lead>.
- U.S. Centers for Disease Control and Prevention, <https://www.cdc.gov/nceh/lead/>.

**Asthma and Allergies:**

- American Lung Association, <https://www.lung.org/> (800) LUNG-USA
- American Cleaning Institute, <https://www.cleaninginstitute.org/> (202) 347-2900
- Allergy and Asthma Network, <https://www.allergyasthmanetwork.org/> (800) 878-4403
- U.S. Environmental Protection Agency, <https://www.epa.gov/asthma>.

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**Indoor Air Quality**

**Volatile Organic Compounds (VOC):**

- Learn how to reduce exposure to VOCs at <https://www.epa.gov/indoor-air-quality-iaq/volatile-organic-compounds-impact-indoor-air-quality>.

**Wood Smoke:**

- Learn more about the health effects of wood smoke at <https://www.epa.gov/burnwise/wood-smoke-and-your-health>.
- Learn how to protect your family at <https://www.epa.gov/burnwise/learn-you-burn-wood-what-you-can-do>.

**Fire Place Safety:**

- Learn about safe wood-burning practices at <https://www.epa.gov/burnwise/best-wood-burning-practices#safe>.

**Third hand Smoke:**

The California Department of Public Health (CDPH) states that all tobacco products such as cigarettes, e-cigarettes, hookah, and even smokeless tobacco can contribute to this harmful residue. More information is available at

- California Department of Public Health, <https://www.cdph.ca.gov/Programs/CCDPHP/DCDIC/CTCB/CDPH%20Document%20Library/Community/EducationalMaterials/ThirdhandSmokeFactSheet.pdf>.
- American Academy of Pediatrics, <https://www.healthychildren.org/English/health-issues/conditions/tobacco/Pages/How-Parents-Can-Prevent-Exposure-Thirdhand-Smoke.aspx>.

**Scented Products:**

Some people may feel discomfort around scented personal care products and household products with fragrance. Also, some of these products, such as air fresheners, may contain VOCs. Consider using unscented products when possible.

**Vacuuming:**

On carpets, using a vacuum cleaner that has a high-efficiency particulate air (HEPA) filter will help control the very fine dust and particles.



### **Mold and Moisture:**

- U.S. Environmental Protection Agency, <https://www.epa.gov/mold>.
- U.S. Centers for Disease Control and Prevention, <https://www.cdc.gov/mold/>.

### **Carbon Monoxide:**

Additional information is available online from the CDC (<https://www.cdc.gov/co/>) and EPA (<https://www.epa.gov/indoor-air-quality-iaq/carbon-monoxides-impact-indoor-air-quality>).

Another important tip is to never use a portable generator indoors; they should only be used outside. The **Consumer Product Safety Commission** has additional information on using portable generators at: <https://www.cpsc.gov/safety-education/safety-guides/carbon-monoxide/portable-generator-related-carbon-monoxide-deaths>.

### **Radon:**

- U.S. Environmental Protection Agency, <https://www.epa.gov/radon>
- State radon contacts, <https://www.epa.gov/radon/find-information-about-local-radon-zones-and-state-contact-information>
- National Radon Program Services (KSU), <https://sosradon.org/>, (800) 767-7236

### **Drinking Water:**

If you have questions or concerns about your drinking water, call the EPA Safe Drinking Water Hotline at 1-800-426-4791 or visit <https://www.epa.gov/ground-water-and-drinking-water>.

Information about protecting private drinking water wells is available at <https://www.epa.gov/privatewells>.

- U.S. Environmental Protection Agency, <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-your-drinking-water> (800) 426-4791
- Centers for Disease Control and Prevention, <https://www.cdc.gov/healthywater/drinking/>

### **Household Chemicals:**

- U.S. Environmental Protection Agency, <https://www.epa.gov/pesticides> and <https://www.epa.gov/saferchoice>
- Poison Control Centers, (800) 222-1222
- Household Products Database, <https://hpd.nlm.nih.gov/>

### **Pests:**

- U.S. Environmental Protection Agency, <https://www.epa.gov/bedbugs> and <https://www.epa.gov/pesticides>

### **Integrated Pest Management (IPM):**

Traditional pest control involves the routine application of pesticides. In contrast, IPM focuses on pest prevention and uses pesticides only as needed. This provides a long-term, cost-effective and environmentally sensitive pest control. More information on IPM and safe pest control is available at <https://www.epa.gov/safepestcontrol/do-you-really-need-use-pesticide>. *Stop Pests in Housing* ([www.StopPests.org](http://www.StopPests.org)) provides resources on ways to deal with pests that avoid or reduce



exposure to pesticides. EPA's *Citizen's Guide to Pest Control and Pesticide Safety* is available at <https://www.epa.gov/safepestcontrol/citizens-guide-pest-control-and-pesticide-safety>.

## Home Safety:

- Poison Control Centers, (800) 222-1222
- National SAFE KIDS Campaign, <https://www.safekids.org/>, (202) 662-0600
- National Safety Council, <https://www.nsc.org/>, (800) 621-7615

## Temperature Control:

- U.S. Department of Energy, <https://www.energy.gov/energysaver/energy-saver>
- Energy Information Administration, <https://www.eia.gov/>
- U.S. Environmental Protection Agency Indoor Air Plus, <https://www.epa.gov/indoorairplus>
- Mercury cleanup and disposal, <https://www.epa.gov/cfl/cleaning-broken-cfl>
- Energy Star, <https://www.energystar.gov/>

- Residential Energy Services Network, <http://www.resnet.us/>

## Cigarette Smoking:

- Centers for Disease Control and Prevention smoking cessation, 1-800 QUIT-NOW
- American Lung Association, <https://www.lung.org/>, (800) LUNGUSA
- E-Cigarettes:  
Using e-cigarettes can harm your health and can expose children and others to harmful secondhand and thirdhand smoke. More information about e-cigarettes is available at the links below.
- U.S. Surgeon General, <https://e-cigarettes.surgeongeneral.gov/>
- Centers for Disease Control and Prevention (CDC), [https://www.cdc.gov/tobacco/basic\\_information/e-cigarettes/index.htm](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/index.htm)
- California Department of Public Health, <https://www.cdph.ca.gov/Programs/CCDCPHP/DCDIC/CTCB/Pages/CaliforniaTobaccoControlBranch.aspx>

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- Andy Bessler, Project Director, NTAA, Institute for Tribal Health Professionals, Northern Arizona University, Flagstaff, Arizona

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## Native American Heritage Month

Every November, we celebrate Native American Heritage Month. The observance recognizes and honors the ancestry, cultures, traditions, history, and contributions of Native people.

Tribal leaders are dedicated to building strong, healthy Native communities that support the educational aspirations of their youth and economic prosperity of their families.

HUD stands strong in our commitment to address pressing needs in Indian Country while upholding our government-to-government relationship. Our staff in the Office of Lead Hazard Control, and Office of Native American Programs work tirelessly to support Indian Tribes' self-determination as they develop affordable housing, expand homeownership opportunities, and address critical infrastructure needs.

We hope that this publication will be useful to you.



Tribal Contacts:



U.S. Department of Housing and Urban Development

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