



Little Moccasins

A Lead Poisoning Prevention
Manual for
Tribal Day Cares and Families

*Part of the
United States Environmental Protection Agency's
Region One's
First Steps Program*



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“What You Should Know about Lead Poisoning: A Resource Manual for Child Care Providers”,¹ Developed by the University of Connecticut Cooperative Extension System. Funding provided by the USEPA-Region 1, Lead Program, James M. Bryson, Project Officer, through the Connecticut Department of Public Health, Frank Greene, Technical Advisor.

***Illustrated by Antowine Warrior (Sac and Fox Tribe)
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“Protecting
the
Most Valuable
Natural Resource,
OUR CHILDREN”



*BRENDA COMMANDER, TRIBAL CHIEF
HOULTON BAND OF MALISEET INDIANS*

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Hundreds of thousands of American children of all ethnic backgrounds have dangerously high amounts of lead in their blood. Fortunately, however, lead poisoning is totally preventable.

INTRODUCTION

Our children are our future. They will carry on our traditions, our heritage, our values. Their health and well-being should be our most important priority. To continue to give our children the best care possible, we need to keep informed of the ever growing environmental threats to their well-being in our ever more complex world.

Lead is a toxic metal that can cause permanent damage to our children. Lead poisoning can damage young children's brains. For many years, lead was taken from the Earth and was used to make products used in our daily environments. All of our automotive gasoline contained lead until 1986, when it began to be phased out. Even though it is no longer used, the lead in that gasoline remains today in the soil by the side of our roads. House paint contained lead until 1978. The lead in paint remains on the walls of about two thirds of our homes —about 64 million houses and apartments in this country. Lead is still present in hundreds of products in the average home environment. Some of the most common uses of lead are car batteries, gasoline for agricultural machinery, paint for commercial and marine uses, fishing sinkers and curtain weights, ammunition, ceramic glazes, leaded crystal, and many plastic products.

Children of lower income families, specifically those living in older housing that is not well maintained and who might not receive well-balanced diets, have the highest risk of lead poisoning. The risk is increased when such older housing is repaired or renovated without the proper precautions being taken.

Fortunately, however, lead poisoning is totally preventable. The key is awareness of its causes and how to control them. We can protect our children by learning about lead poisoning and taking action to prevent it.



HEALTH EFFECTS

Lead poisoning damages virtually every organ of the body. The most serious effect for young children is on the development of the brain.

Lead poisoning damages virtually every organ of the body. The most serious effect for young children is on the development of the brain. Sometimes lead enters the body by breathing in fine lead dust in the air, both indoors and outdoors. Usually children absorb lead by ingesting paint, soil or dust with lead in it.

Young children ingest more lead because they come into contact with dust and soil more often than older children or adults. Young children crawl and play on the floor, which might have lead dust on it. They play in the dirt, which might be contaminated with lead. They often put their hands and objects in their mouths, so the lead in the dust and dirt gets into their bodies.

Although some of the lead that enters a child's body is eliminated, a significant percentage travels through the child's blood and is deposited in the various organs of the body, including the brain. Since children's brains are still developing until the age of six, young children, are the most vulnerable to lead poisoning.

Some of the lead is stored in the child's bones. When the child grows up, that stored lead can be released back into the blood and throughout the body again, especially at times of increased demand, such as pregnancy.

Unborn children can also be hurt by lead. The lead that a pregnant woman is exposed to, as well as any lead released from the bones during pregnancy, is passed along to the fetus. This can cause premature births, low birth weights and still births. Pregnant women, therefore, need to be very careful about exposure to lead in the environment, just as young children do.

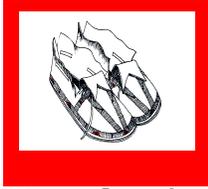
Very high levels of lead in a child's blood can cause anemia, hearing problems and kidney damage. It can interfere with a child's growth, and cause reduced intelligence, learning and behavioral problems. In unchecked cases lead poisoning can lead to coma or even death, though this is very rare.

Even at levels that are fairly common levels that were previously considered safe lead damages the brains of young children as they are developing. Childhood exposure to lead can lower intelligence and cause learning disabilities, hearing impairment, behavior problems, slower reaction time, and attention problems

Damage can be occurring inside the cells in a child's body even though there are no apparent outward symptoms.

It is difficult to know just by looking whether a child is lead poisoned because often there may be no obvious symptoms. Even when there are symptoms, the symptoms of lead poisoning are very similar to symptoms of other illnesses.

It is difficult to know just by looking whether a child is lead poisoned because there may be no obvious symptoms.



**Examples of
Some Symptoms
of Lead
Poisoning**



These symptoms may include:

- irritability
- stomach pains
- dizziness
- constipation
- vomiting
- lack of appetite
- muscle weakness
- difficulty sleeping
- very high or very low activity level



SCREENING

The only way to know whether a child is lead poisoned from being exposed to lead in his or her environment is to have the child's blood tested by a professional. This is referred to as *screening* for lead poisoning. A small sample of blood is taken from the child's finger (this is called a *finger stick* or *capillary* blood test) or from the arm (this is called a *venous* blood test).

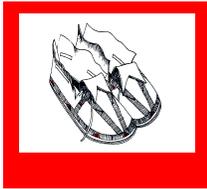


The amount of lead in the blood is measured. The blood may be sent to a laboratory to be measured, in which case results come back a couple of weeks later. The lead can also be measured right in the office or clinic. A few drops of blood can be taken and analyzed by a machine called *LeadCare®* and the results are available in 10 minutes.

A child should be screened as part of a regular yearly check-up from the ages of six months through six years. The most important times to screen a child are at the ages of one and two, because those are the ages that a child is most likely to be lead poisoned. A child should also be screened at any time when he or she might be at high risk. A child is considered to be at high risk of lead poisoning if:

1. The child lives in or regularly visits a home or building built before 1960. The risk is even higher if it was built before 1950, or if paint from the Bureau of Indian Affairs was used.
2. The child lives in or regularly visits a home or building built before 1978 that has recently (within six months) undergone renovation or remodeling, or has been poorly maintained and has paint that is flaking or peeling (especially in the case of a BIA building).
3. The child has a sibling or playmate who has lead poisoning. (Discuss lead poisoning with friends and neighbors so that you will be aware of cases of such lead poisoning.)
4. A member of the child's household comes in contact with lead in their work or hobby. (See the list of occupations and hobbies involving lead exposure in the section on Dust from Occupations, below.)

The amount of lead in the child's blood, known as the *blood lead level*, tells the doctor or nurse whether the child is currently being exposed to lead and is at risk



of lead poisoning. If the child has an *elevated blood lead level*, then he or she should be screened again every few months to make sure the level does not continue to increase to the point of being dangerous.

Interpreting Screening Results

If the blood lead level is over a certain threshold (10 micrograms per deciliter), the child should be screened frequently to make sure that the level does not continue to rise. It is wise to search out and eliminate sources of lead in the environment to prevent further exposure and possibly higher, more dangerous, blood lead levels.

A result of 15 micrograms per deciliter or higher indicates that the child should be tested for iron deficiency. Special attention should be paid to the child's diet and to finding the source of lead in the child's environment. If the child's home contains lead paint, extra care should be paid to hand washing and to cleaning floors and other horizontal hard surfaces that are accessible to the child. Cleaning should be done with wet cloths and mops that pick the lead dust up rather than with dry cloths, brooms or vacuum, which spread the dust around.

A blood lead level of 20 micrograms per deciliter or above may call for a more thorough investigation of, and efforts to control, the source of lead, as well as a complete medical examination. Medical treatment may be prescribed, depending on the particular situation.

If the child has over 40 or 50 micrograms of lead per deciliter of blood, medical treatment (*chelation therapy*) and a thorough environmental investigation will be needed.

A blood lead level of 70 micrograms per deciliter is considered a medical emergency and requires immediate medical treatment, environmental investigation, and source control.

Medical Treatment

If a child has an elevated blood lead level, a medical practitioner might do a more thorough physical examination. The child might be checked for anemia (low hemoglobin or red blood cell count caused by iron deficiency). Not every lead poisoned child is anemic. However, if a child is found to be anemic, an iron supplement may be prescribed.

If a child has severe lead poisoning he or she will be given a drug called a chelating agent to remove some of the lead from the blood. Usually this is done orally, but sometimes it has to be done by injection or intravenously and may require hospitalization.

In order for the treatment to be effective, it is critical that the lead in the child's environment also be removed. If a child is treated and then exposed to lead again, the child will be poisoned again.



Where To Go For Help

A family with a lead poisoned child is confronted by a number of issues. They may need to get medical treatment for the child. They may need assistance with behavior problems or learning disabilities. They might also need help dealing with the psycho-social issues, the guilt, anger and stress that can result from finding that one's child has been or may be harmed, and with the financial demands of dealing with the situation.

Assistance is available at many levels. State and tribal health agencies can help with screening, interpreting screening results, and any necessary medical treatment. Tribal environmental specialists can help to locate sources of lead in the home. Social workers, both state and tribal, can offer support. There are parent support groups in some areas, where families share their experiences to benefit others in similar situations. Federal agencies have outreach workers to help people deal with lead poisoning, too, as well as toll-free hot-lines that provide free information on lead poisoning to the public.

If a child has learning disabilities, the family can get help from early intervention and Head Start programs. Some disabilities qualify a child for special education services from public school systems. The special education department of local public school departments can advise families on how to have children evaluated for special needs before reaching school age.

Resources for supporting families of lead poisoned children are listed in the resource section of this manual.



BEHAVIOR MANAGEMENT TECHNIQUES FOR CHALLENGING CHILDREN

When children have lead poisoning, they may have various learning and behavioral problems. These challenging children frequently feel that they are “bad”, and these feelings may make them angry, and aggressive. Caring adults —parents, daycare providers, or others—can help by spending short periods of one-on-one time with these children in pleasant activities, such as reading a story or doing a project. Such activities help develop warm relationships, and children often begin to feel better about themselves.

Although challenging behaviors may indicate that a child has lead poisoning, they may also be caused by other problems. All children need patience, love and support.

Routines

Challenging children usually behave more appropriately if they have a daily routine, a well established sequence of events. The routine may include waking-up time, washing, eating breakfast, dressing, having free play, leaving for the sitter/daycare/school, eating snack on returning home, playing outdoors, watching TV, eating dinner, washing up, and going to bed. A routine should allow for some flexibility but it should also provide a regular structure for the child’s day. Children should know what to expect and what the rules are for the routine.

Adjust the Environment

Adults should try to arrange the environment so that children are not in situations that encourage inappropriate behaviors. For example, if a child becomes over-stimulated by noise, use carpeting to reduce the sound level, limit the number of children who can play in an area at any one time, and use plastic toys rather than metal ones.

Use nonjudgmental labels to identify inappropriate behaviors, and tell children what they need to do about them. For example, “You’re overexcited. You need to take a break before something gets broken.” Or, “I know you’re having trouble paying attention, but I want you to look at me and listen to my instructions.” Explain that it is the behavior and not the child him or herself that is objectionable. (“Even though I don’t like your behavior, I still love you.”) Ask “What did I just say?” and have the child explain it back to you to be sure the he or she really understands what you are expecting.

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Techniques for Specific Problems

For very active children: Step in before children lose control. Tell them that they are too excited. They may move to another activity, cool off with a quiet activity (for example, reading or drawing), or blow off steam by active but safe play. Stay calm and speak with a soft voice, even if the children are screaming. Squat or sit down so that you are at the children's level and can establish eye contact without looking down on them. Act as a good role model, and show the children that you are under control, even if they are not.

For children who are easily distracted: Move children to new activities if they can no longer concentrate on a task or give them a break and have them return to the task later. Remember that most preschool children normally have relatively short attention spans.

For unpredictable children: Provide a structured routine so that children know what to expect. Don't make a big fuss over their unpredictable traits. For example, at mealtime, tell the child that they are expected to eat at the table, but don't force them to eat. Don't keep them at the table for very long.

For children whose senses are extremely sensitive: Some children are very sensitive to sights, sounds, smells, tastes, or touch. When possible, adjust the environment and adapt to their wishes: Reduce loud noises and bright lights, let a child wear the same coat every day, or give him a tuna sandwich for lunch every day. Otherwise, offer the child choices and give her time to adjust gradually. For example, if the child is a picky eater, allow her to choose among a variety of new items and let her get used to seeing and smelling them as others eat them.

For children who withdraw or adapt poorly to new things: Warn the child that something different is about to happen. Tell the child what the sequence of events will be. Present the new experience in a positive light, as an adventure—something interesting and enjoyable. Allow the child time to adjust to a new situation, letting him or her watch from the sidelines for a while. Encourage the child to stay near a caring adult during the experience.

For children with negative moods: Ignore the negative mood or attitude, which you cannot change, and concentrate on the child's behavior. Encourage and praise behaviors that you feel are positive.

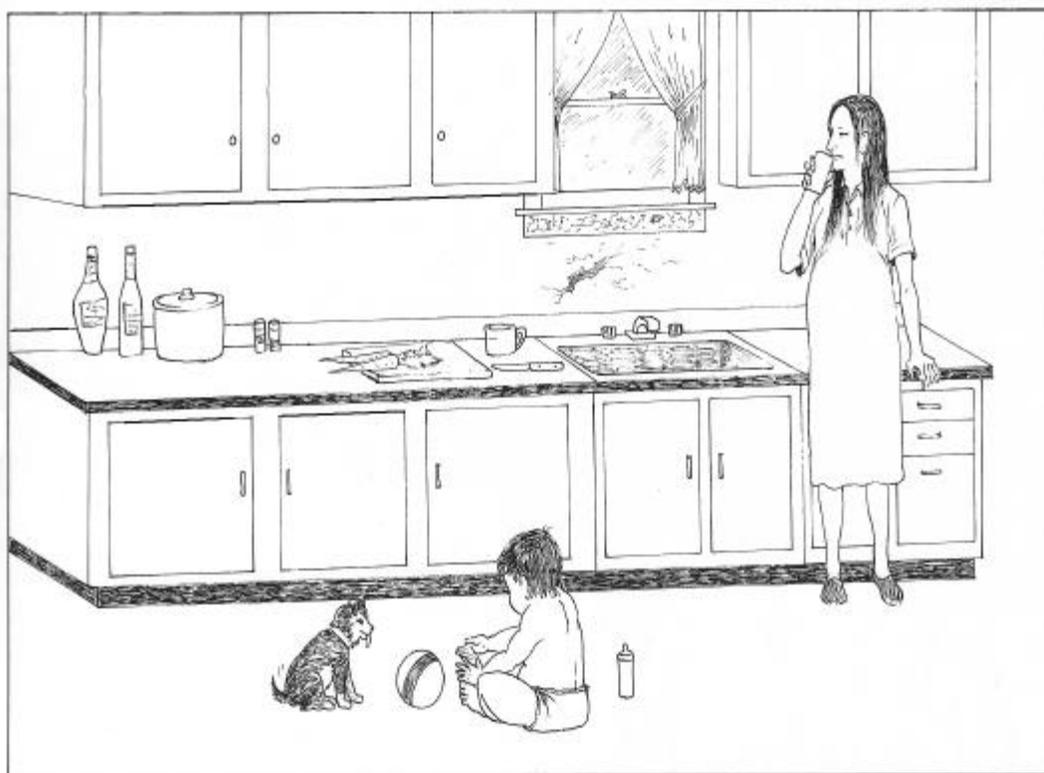
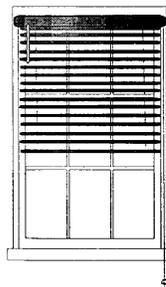


SOURCES OF LEAD

The key to preventing lead poisoning is understanding as many of the sources of lead that a child might be exposed to as possible. Lead accumulates in a child's body. When children are exposed to small amounts of lead from a number of different sources, such as soil, dust, paint, water, air and plastic products, the exposure can add up and can be harmful even though each separate piece might be very small.

Examples of Some Sources of Lead

- Vinyl mini-blinds, plastic or PVC products
- Paint chips from peeling lead based paint
- Dust from the friction of opening or closing of lead painted windows
- Leaded crystal decanters
- Foil from old or imported wines
- Calcium supplements
- Vegetables grown in lead-contaminated soil
- Imported or "craft" ceramics that use lead glaze
- Drinking water contaminated with lead
- Lead dust brought home on the shoes or clothing of lead or metal workers
- Toys that are imported or have been contaminated by lead dust or soil



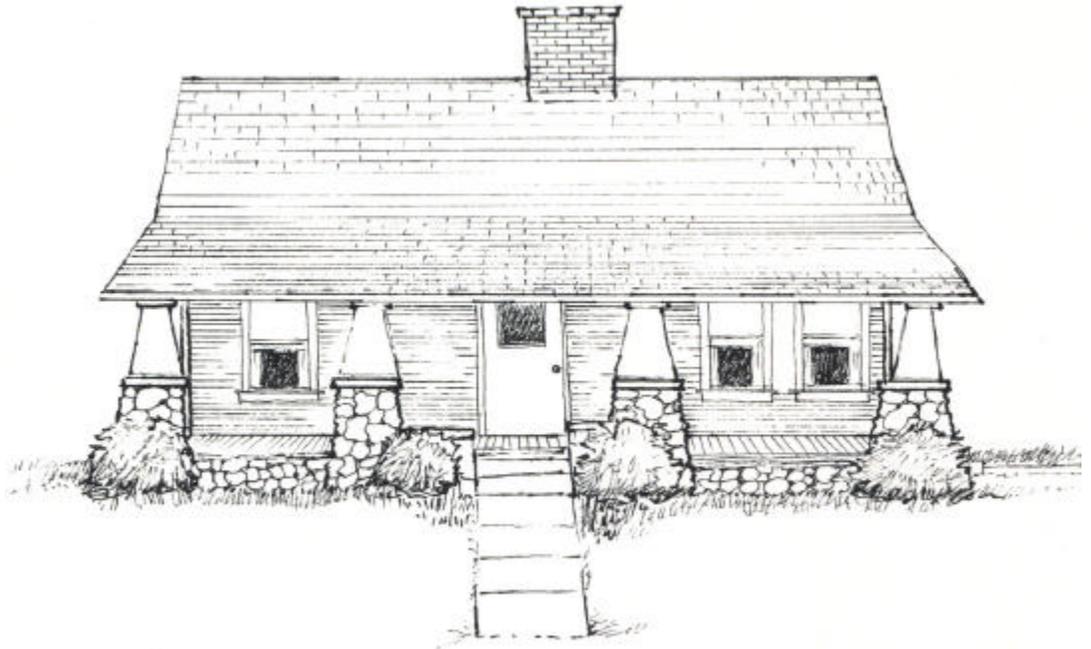


House Paint

Most cases of lead poisoning are caused by ingesting lead-based paint and breathing in lead dust. Children can ingest large, harmful amounts of lead if they chew on surfaces painted with lead-based paint, such as window sills or trim, or old painted furniture or toys. They can also poison themselves severely if they eat paint chips that have fallen from old painted ceilings, walls or woodwork. Lead paint (especially older household paint and paint intended for commercial or marine use) is so toxic that ingesting only a few grains a day, the size of sugar crystals, can poison a young child.

About 64 million, or a total of two thirds of the houses and apartments in this country, still contain lead-based paint. Any home built before 1978 (or painted with paint manufactured before 1978 or paint supplied by the Bureau of Indian Affairs) might contain lead paint. Older homes are more likely to contain lead. Old varnish and plaster might also contain lead. When the property is poorly maintained, the paint is more likely to be peeling or flaking and poses a greater danger to young children.

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DETECTING LEAD-BASED PAINT

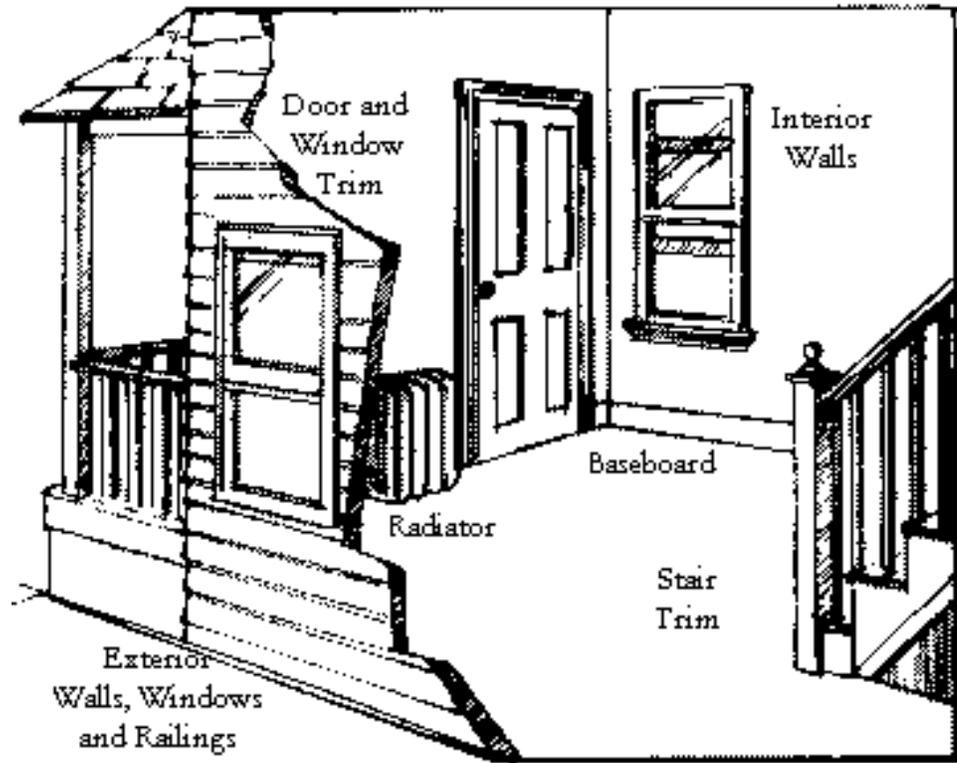
When you buy or rent a home, the owner is required by law to tell you if he or she knows the house contains lead paint. You cannot assume, however, that the fact that you are not told there is lead paint in the home means that you are safe. The owner might not have had the paint tested or might have had only part of the home tested. There are three ways you can find out if the paint in your house contains lead.

1. You can send paint chips to a laboratory to be analyzed. Your state lead poisoning prevention program, the National Lead Information Center's toll-free line or web site, or HUD's Lead Listing can give you names and addresses of laboratories that are recognized as being competent to do this. (See the resource section of this manual.)
2. You can have an inspector come to measure the lead in the paint in your home. This can be done with a machine called an XRF (short for X-ray Fluorescence). Although the XRF is very effective and is safe if handled correctly, it does use radiation, and it is important that it be handled by a properly trained operator. Make sure that the inspector is certified by your state or tribe, if they have a certification program, or by the EPA. Ask to see his or her credentials. HUD's Lead Listing or the National Lead Abatement Council can help you find a trained inspector. (See the resource section of this manual).
3. You can buy a kit at a hardware store to test the paint yourself. Home test kits are not as accurate or precise as the previous methods. You cannot assume that you have no lead paint just because you get a negative result from a test kit. Nor can you assume that you really do have lead in your paint if the test kit indicates you do. A test kit simply gives you an indication, but you need to confirm the results with one of the other methods to know for sure.

It is important to realize that you will only know if your paint has lead in the specific spots that are tested. If only flaking areas are tested, other walls or woodwork that are not flaking may have lead. Although these areas might not be tested because they are believed not to pose an immediate threat, you should be alert to the possibility that they might present a hazard if they ever do peel or flake, or if they are disrupted in any way, such as during renovation.



Where Lead is Found in the Home



Based on data from HUD



CONTROLLING LEAD-BASED PAINT

If there are places in your home where the paint is peeling or flaking, be sure to keep children from touching them. You can cover a small spot with contact paper or duct tape. You can keep children from reaching other areas by placing furniture in front of them. (Be careful not to place a chair or sofa under a window, however, in a situation where a young child might be able to climb up and fall out of the window.) Or you can remove a small patch of peeling paint by carefully scraping it off after wetting it, and disposing of the chips immediately.

(If the cause of the peeling paint was moisture from a water leak or poor ventilation, that problem should be addressed as well so that the paint will not flake again.)

Hazards caused by lead paint dust created from the friction of a window frame can be eliminated by installing plastic or metal liners in the window channels. Other friction surfaces, such as doors, stairs, and outside corners of walls, can similarly be treated to prevent friction from releasing lead dust.

You can also control the hazard for the long term by covering flat surfaces with lead-based paint in a very secure way. A wall painted with lead-based paint can be covered with wallboard or paneling, thoroughly and carefully sealed at the seams, top and bottom. Or it can be coated with an *encapsulant*, a liquid that looks like paint and prevents lead dust from escaping. These are not permanent solutions, however. If the covering is ever removed, punctured, or disturbed in any way, the lead from the paint can get back into the living environment.

Removing the paint is the only permanent solution. You can replace entire elements that are covered with lead paint, such as windows or baseboards. You can strip the paint itself off taking proper precautions (listed below).

Any work that will disrupt the paint on a lead-painted surface must be done with precautions to protect both those doing the work and those living in the home.

Precautions For Working With Lead-based Paint

- Pregnant women, young children, and pets should be out of the house when the work is being done.
- Anyone working with lead-painted surfaces, whether hired workers, tenants, or property owners, should be protected from lead dust by wearing well-fitted respirators with HEPA (high efficiency particulate air) filters and protective clothing. They should not eat, drink, smoke or chew gum or tobacco in the work area.
- The areas being worked on should be isolated from the rest of the living space by keeping people from walking in and out of the work area and by hanging plastic sheeting over the doorway to keep lead dust from escaping. Doors and windows should be shut and drop cloths should cover the floors. Personal possessions and furniture should be removed or covered.

Any work that will disrupt the paint on a lead painted surface must be done with precautions to protect both those doing the work and those living in the house.



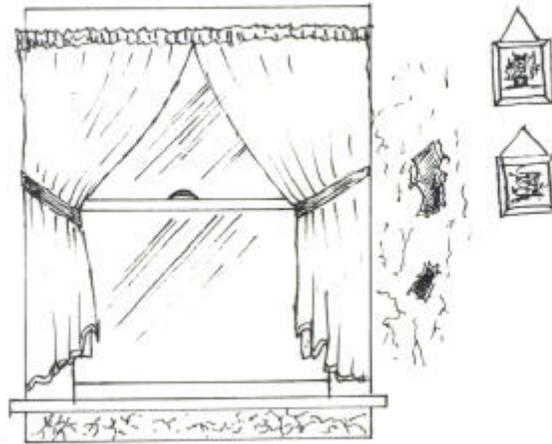
- If any scraping or sanding is done, the surface should be wetted down first, so that as little lead dust as possible is created. Any time paint chips are loosened from a surface they should be carefully collected on plastic and disposed of safely before they could be spread around the home. Torches, power sanders or other methods that create a lot of dust or fumes should not be used.
- The entire home should be cleaned extremely well afterwards. Each work area should be cleaned as the work is done. Cleaning should be done by wet mopping with a special lead cleaner and vacuuming with a HEPA vacuum cleaner. A normal vacuum cleaner should not be used because it will send fine lead dust back out into the air.



Children do not have to eat paint chips or chew on window sills to be lead poisoned.

HOUSEHOLD DUST

Children do not have to eat paint chips or chew on window sills to be lead poisoned. They can be poisoned from house dust that is contaminated with lead from normal wear and tear of paint on woodwork, especially windows. When two surfaces painted with lead-based paint rub together, the friction creates fine lead dust that settles on the floor and other hard surfaces in the home.



The dust that is everywhere in our homes can be contaminated with lead without our knowing it; lead dust is invisible. The particles of lead are so small that we cannot know that they are there unless we have a sample of it analyzed by a laboratory. Even though it is so small that it is invisible, lead dust is toxic. Actually, the smaller the pieces of dust are, the more dangerous they are because the smaller size makes the dust

more easily absorbed into a child's body

When children play or crawl on the floor, they get the lead dust on their hands and clothing. The lead dust is also picked up by objects such as pacifiers, baby bottles, and toys that a child might put into his or her mouth after they have been on the floor. Children's hands should be washed before eating and sleeping. Toys, pacifiers, teething rings, and nipples from baby bottles, should be washed regularly to protect children from the lead dust they might pick up.

Rugs are hot spots for lead dust. Small area rugs are much safer when they are washed regularly. Larger rugs and carpets that are not regularly cleaned collect and hold lead dust. The hazard from carpeting can be minimized by having it cleaned professionally or by vacuuming it with a vacuum cleaner with a HEPA filter. A regular vacuum cleaner draws lead dust out into the living environment and may create a more hazardous situation than not cleaning the rug at all.

To find out whether your home has hazardous levels of lead dust, you can conduct a simple test. Select spots that are likely to be contaminated: window sills and troughs, the floor areas under windows, and the floor near the most frequently used entrances. (To get a list of accredited laboratories which can instruct you on taking samples and analyze them for lead, contact the National Lead Information Clearinghouse, listed in the resources section of this manual.)



Dust from Occupations

Household members who work in environments with lead can bring lead dust into the home on their body, hair, and clothing and especially their shoes. People who do remodeling, furniture refinishing, paint removal, soldering, automobile repair or body work, or who work in a factory where lead is used are particularly at risk of lead contamination.

Such individuals should be careful to change their clothing, including shoes, and wash their hands well before entering the home. Lead-contaminated clothing should be washed separately from the rest of the family's laundry. (Avoid putting the baby's clothes in the machine in the load directly after the work clothes are washed, if possible.) Work shoes should be kept out of young children's reach.

Lead dust brought into the family car can also be a threat to young children. Dust can accumulate on car seats, exposing young children to dangerous levels of lead.

OCCUPATIONS AND HOBBIES WITH A RISK OF LEAD EXPOSURE

Crafts/hobbies

- Ceramics glazing
- Fishing Weight making
- Ammunition making
- Stained glass making

Construction/repair work

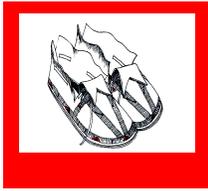
- Bridge, tunnel, elevated highway work
- Cable stripping
- Electrical work
- Enameling
- Lead soldering
- Machining or grinding lead alloys
- Paint stripping
- Radiator repairing

- Residential lead removal
- Roofing, siding, sheet metal work
- Sanding of old paint
- Welding
- Wrecking and demolition work

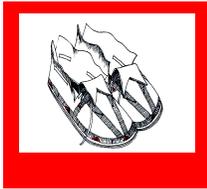
Manufacturing/mining/smelting

- Ammunition and small arm
- Battery manufacturing
- Bottle cap manufacturing
- Brass, copper or lead foundries
- Cable covering manufacturing

- Ceramic walls, floors, tiles and glazing
- Chemical and chemical preparations
- Communications equipment
- Electronic component
- Fabricated rubber
- Fabricated metal products
- Glass products (pressed and blown, or from purchased glass)
- Insecticide manufacturing
- Industrial machinery and equipment
- Jewelry making
- Lead production or smelting



- Malleable iron foundries
 - Metal fixtures and cans
 - Measuring and controlling devices
 - Motor vehicles, parts and accessories
 - Non-ferrous rolling, drawing and refining
 - Paint manufacturing
 - Plastic manufacturing
 - Plumbing fixture fitting and trim
 - Porcelain products
 - Printing
 - Search and navigation equipment
 - Tanning
 - Transportation equipment
 - Valve and pipe fittings
 - Vitreous china food utensils
- Other types of workers at risk**
- Automobile Mechanics
 - Auto body workers
 - Dental technicians
 - Scrap and waste handlers
 - Firing range instructors and Janitors
 - Police



House Cleaning

Lead dust in a home should be cleaned with wet rather than dry cleaning methods. When floors and other hard surfaces are washed and mopped, the lead dust is picked up and can be disposed of safely. Water and a household detergent or a special lead cleaning product should be used. It is best to use separate buckets for washing water and rinsing water, so that the lead that is picked up doesn't get back onto the floor or other surfaces. Rags and mop heads used for cleaning lead dust should be washed separately from the family laundry.

Hard surfaces that collect dust and are accessible to young children should be washed often. The most important ones are floors and window troughs and sills, because they tend to collect highly contaminated dust.

Lead dust should not be swept, dusted or vacuumed with a normal vacuum cleaner. These methods tend to move lead dust back into the air and to distribute it around the house, where it settles and remains a threat to children's health.





Hand Washing

Hand washing is an important way to protect children's health. Teaching children to wash their hands after playing outdoors and before eating and sleeping is one of the best ways to keep lead-contaminated dust and soil from hurting them.



Of course, washing hands regularly is also one of the best means of protection against the spread of germs from one child to another over the course of a day. Hand washing is a good habit to teach our children.

Children should learn how to wash their hands so that they really get clean. They should first put them under the running warm water, then apply soap, rub them together, wash between the fingers and under the finger nails (using an old tooth brush works well) and, finally, rinse well. It takes about 20 seconds to do a good job.

**RENOVATION/REPAIR**

Renovating or remodeling a home with lead paint can poison a child if it is not done in a safe way. Any time a lead-painted surface is disturbed, a potential hazard is created. Even a small repair can pose a hazard to a small child. Scraping a bit of peeling paint from a wall can release paint chips and dust into the home where a child can touch and ingest them. Removing a counter, a window, or even something as small as a thermostat from a wall with lead paint causes paint chips and dust to be dispersed on surrounding surfaces. Sanding an area smaller than one square foot can cover an entire room with highly toxic levels of lead dust. Heating lead paint can create toxic fumes, so heat guns should never be used without both proper training and a well-fitted respirator.

THESE SAME PRECAUTIONS SHOULD BE USED AS WHEN LEAD PAINT IS ABATED.

These same precautions should be used as when lead paint is abated.

- Pregnant women, young children, and pets should be out of the house when the work is being done. (Pregnant women should not come back into the home to clean up, but should remain away until a thorough clean up is completed.)
- Anyone working with lead-painted surfaces, whether hired workers, tenants, or property owners, should be protected from lead dust by wearing well-fitted respirators with HEPA (high efficiency particulate air) filters and protective clothing. They should not eat, drink, smoke or chew gum or tobacco in the work area.
- The areas being worked on should be isolated from the rest of the living space by keeping people from walking in and out of the work area and by hanging plastic sheeting over the doorway to keep lead dust from escaping. Doors and windows should be shut and drop cloths should cover the floors. Personal possessions and furniture should be removed or covered.
- If any scraping or sanding is done, the surface should be wetted down first, so that as little lead dust as possible is created. Any time paint chips are loosened from a surface they should be carefully collected on plastic and disposed of safely before they could be spread around the home. Torches, power sanders or other methods that create a lot of dust or fumes should not be used.
- The entire home should be cleaned extremely well afterwards. Each work area should be cleaned as the work is done. Cleaning should be done by wet mopping with a special lead cleaner and vacuuming with a HEPA vacuum cleaner. A normal vacuum cleaner should not be used it will send fine lead dust back out into the air.



Soil can become contaminated with lead from exterior lead-based paint or auto emissions.

Soil around the outside of your house can become contaminated with lead from exterior lead-based paint. When paint flakes off the outside of an old building, or when it is scraped off to repaint the building, the paint chips fall onto the dirt and get ground into the soil over time. The soil ends up containing very small pieces of paint, often so small that they cannot be seen. Soil near old buildings of any kind is often contaminated in this way.

Soil can also be contaminated with lead that was emitted from automobiles during the years when cars used gasoline with lead in it. Whether leaded gasoline was phased out decades ago, as on the east coast, or in recent years, as in the Southwest, the lead remains in the soil to this day. This lead fell to the ground by the side of the road, where it settled into the soil. Soil near well-traveled roads can still be contaminated from that lead. Emissions from farming vehicles still contains lead, further contaminating the soil in agricultural areas.

Soil can be also become contaminated from pesticide spraying, sand blasting, or industrial emissions. Although lead arsenate is no longer used as a pesticide, it was very commonly sprayed in orchards for decades. So land that is now or was previously used for growing fruit trees could have soil that is contaminated with high levels of lead from lead arsenate. Soil near a bridge that has been sandblasted to remove old lead paint, or near a smelter or factory that emits lead into the air can also contain dangerous amounts of lead.

If there is lead in your soil, keep your children away from the soil right next to the house by planting shrubs near the house. Cover other areas of the yard with grass. Have children play in a sandbox with lead-free sand, rather than in lead-contaminated soil.

Children playing in dirt get it on their hands and under their fingernails. It is important that they learn to wash their hands after playing outdoors, if the soil might be contaminated with lead. (See section on Hand Washing.)

Lead can be brought into a child's living environment on the shoes of people entering the home or daycare. You can reduce the hazard by either removing shoes upon entering the home or day care, or by keeping a mat by the entrance and wiping off the dirt before entering.

Pets bring soil into homes on paws and fur. Children come in contact with this lead directly by petting the animal, or indirectly, when it is transferred to furniture, carpets or other parts of the living environment.





LEAD IN THE GARDEN

Vegetables absorb lead from the soil. It is especially important to be careful about lead in the soil when you are growing root or leaf vegetables, such as potatoes, carrots, lettuce or spinach. Roots and leaves take up more lead than fruits, or vegetables that grow on vines, such as tomatoes or zucchini.

You can decrease the amount that is absorbed by vegetables you grow by planting them away from the road or from any building that was ever painted with lead-based paint. Also avoid planting on any land that was ever used as an orchard (it may still contain lead arsenate pesticide residues) or any location where demolition work might have been done (it might have left bits of paint in the soil).

You can find out how much lead is in your soil by having a sample analyzed by a laboratory. Be aware, however, that even if a few samples test negative, you may have lead in soil in other spots. (To get a list of accredited laboratories which can instruct you on taking samples and analyze them for lead, contact the National Lead Information Clearinghouse, listed in the resources section of this manual.)

If you know or suspect that your soil is contaminated, you can protect your family from lead in vegetables you grow by taking these precautions.

- Use at least 25% organic compost by volume, the more decayed and the less fibrous the better.
- For plants that are not especially sensitive to pH, use lime to get your soil to a pH of 6.5 or 7. Lead is less soluble at these levels.
- Keep the soil moist and use mulch to minimize dust.
- Plant fruiting crops (including tomatoes, beans, squash, etc., plants where neither leaves nor roots are eaten) rather than leafy crops (lettuce, spinach, etc.) or root crops (beets, potatoes, etc.), which absorb more lead from the soil.
- If you do grow leafy crops, remove the outer leaves. These can contain as much as 5 times as much lead as inner leaves.
- If you do grow root crops, peel them before eating.
- Wash all produce thoroughly with water and a nontoxic liquid dish washing detergent that specifically states on the label that it is safe for washing food. (Look in a health food store.) Rinse well before eating.





DRINKING WATER

Lead can get into drinking water from household or municipal plumbing systems. The lead from water pipes, solder used to join pipes together, or brass pipes or fixtures (which may contain up to 8% lead) is picked up by the water as it goes through the pipes. Lead can also get into water from water fountains or old kettles or urns with lead lining or solder. (To see if a drinking fountain is safe, it can be checked against a list you can obtain from the EPA Safe Drinking Water Hotline, listed in the resource section of this manual.)

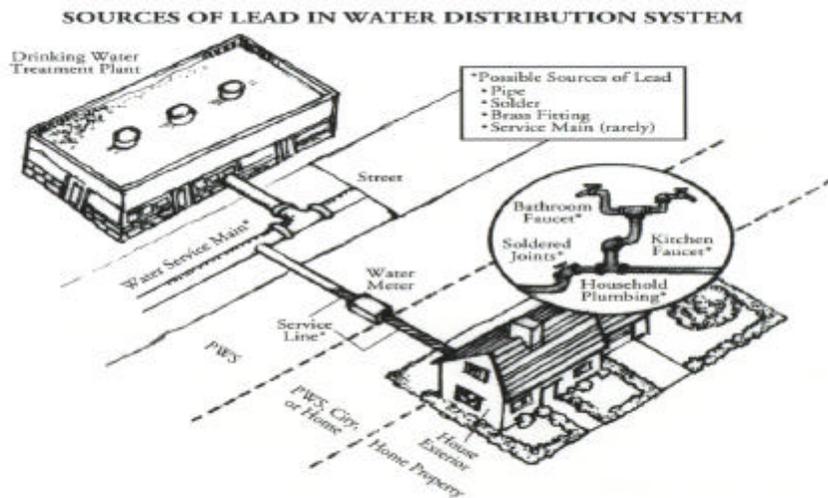
The more time that the water sits in pipes, the more lead it picks up. Water that has been sitting in pipes overnight or all day long will have more lead than water that is simply run through the system.

Certain types of water absorb more lead than others. The pH of water affects the amount of lead it absorbs. Soft water absorbs more lead than hard water, because hard water contains minerals which coat the pipes, covering up the lead. Hot water can contain more lead than cold water. When water is boiled, the lead becomes more concentrated.

The only way to know for sure whether there is lead in your drinking water is to have the water tested. You can send a sample of water from your tap to a laboratory that will measure the lead in it. Your regional EPA office can recommend certified laboratories which can direct you in collecting samples and analyze them for lead content. (See the resource section of this manual for addresses and phone numbers of regional EPA offices.)

Without testing your water, you can get an idea of the likelihood of it being contaminated with lead by asking your water supplier if you are serviced by lead pipes. The pipes in older homes (built before 1920 or so) might be made of lead. Lead might also be present in your household plumbing in the form of solder if you live in a home built before 1986.

If your drinking water contains high levels of lead, there are several ways you can protect your family. Use cold water for drinking, cooking and preparing baby formulas. (When infant formula is made from hot water drawn from the





faucet first thing in the morning and boiled to make sure it is pure, it may contain very high amounts of lead.) Run the cold water for a couple of minutes, until you notice a change in the temperature, before using it for drinking.

You can get most of the lead out of your drinking water by using a drinking water filtering device that is labeled specifically as being effective (over 95%) in removing lead. Look for a blue circle with the letters NSF to know that the filter has been tested and approved by the National Sanitation Foundation as being effective in removing lead. Finally, if your water has a very high lead content, consider purchasing bottled water, at least to mix formula for an infant.



When ceramics are not fired at high enough temperatures, the lead from the glaze can get into the food they contain.

When ceramics are not fired at high enough temperatures, the lead from the glaze can get into the food they contain. Lead is absorbed from ceramic glazes especially by acidic foods, like tomato sauce or cooked fruits, and hot drinks, such as coffee or tea. It is advisable not to use old, home made or imported ceramics for storing soft, especially acidic, foods or liquids unless the ceramics have been tested for lead.

It is also best not to use ceramics for food if they are chipped or show a chalky gray residue after washing or if they are marked "For Decorative Purposes Only."

Certain other types of containers can also be a problem. Leaded crystal or old pewter used to store acidic foods might contaminate them with lead. The foil on imported wine bottled before 1996 can contain lead. Any lead can be removed from the lip of the bottle by wiping it with vinegar or lemon juice. Imported cans might have lead solder, evidenced by wide gray seams, which can contaminate food.

The printing on plastic bread bags contains lead. If they are used inside out to store food, it might become contaminated.





LEAD IN THE AIR

Lead smelters and lead-acid battery recycling plants still may emit dangerous amounts of lead into the air. The burning of waste containing lead, such as car batteries, old motor oil or old lead-painted wood, is also hazardous. Air can be contaminated if a commercial building or bridge is sandblasted, or if a lead-painted surface is sanded when a home is being renovated or repainted. Automobile emissions still contaminate the air with lead in countries where lead is used in gasoline, posing a danger to those visiting or living near the Mexican border. Lead is emitted by farm machinery that still uses leaded gasoline.



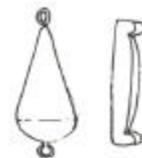
OTHER SOURCES

Lead is used as a stabilizer in some vinyl and PVC products. Several models of imported mini-blinds contain dangerous amounts of lead. Look for labels assuring that the blinds are lead free. If you have old imported blinds, wet clean them rather than dusting them with a dry cloth. High levels of lead have also been found in some vinyl children's raincoats and back packs, cables to electronic toys, and various other plastic toys.



Ammunition is made from lead. Bullet making and handling can be a source of lead exposure. Game killed with lead shot might still have bits of lead in the meat.

Fishing weights are made from lead. Handling them, especially holding them in the teeth while attaching the line, can be a source of lead exposure.



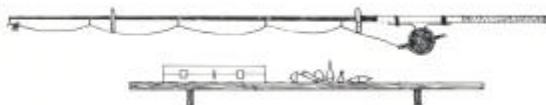
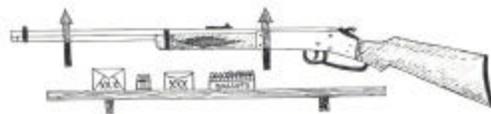
Art supplies may contain lead. Read labels carefully and take precautions recommended for handling lead when making stained glass or jewelry. Keep these materials away from children and always clean up well before coming into contact with children. Watch out for lead when choosing art supplies for children. Look for statements that chalk, crayons, paints and modeling clay conform with voluntary standard ASTM D-4236.

Printed designs on old wallpaper, old or imported drinking glasses enameled jewelry and imported T-shirts could contain lead, as well as the gold on the rim of drinking glasses. Some calcium supplements may contain lead as well as some hair dyes.

Old painted furniture and toys can contain lead. Children can be poisoned by chewing on the arm of an old high chair or the bar of an old crib.

Playground equipment may be painted with lead-based paint, and poses a threat if it is peeling or flaking.

Any building where lead has been used in any way (an old garage or factory, a workshop where furniture was stripped, pottery was glazed or stain glass was made, an old fishing shack, etc.) will still pose a threat to anyone entering it and should be treated with great caution.



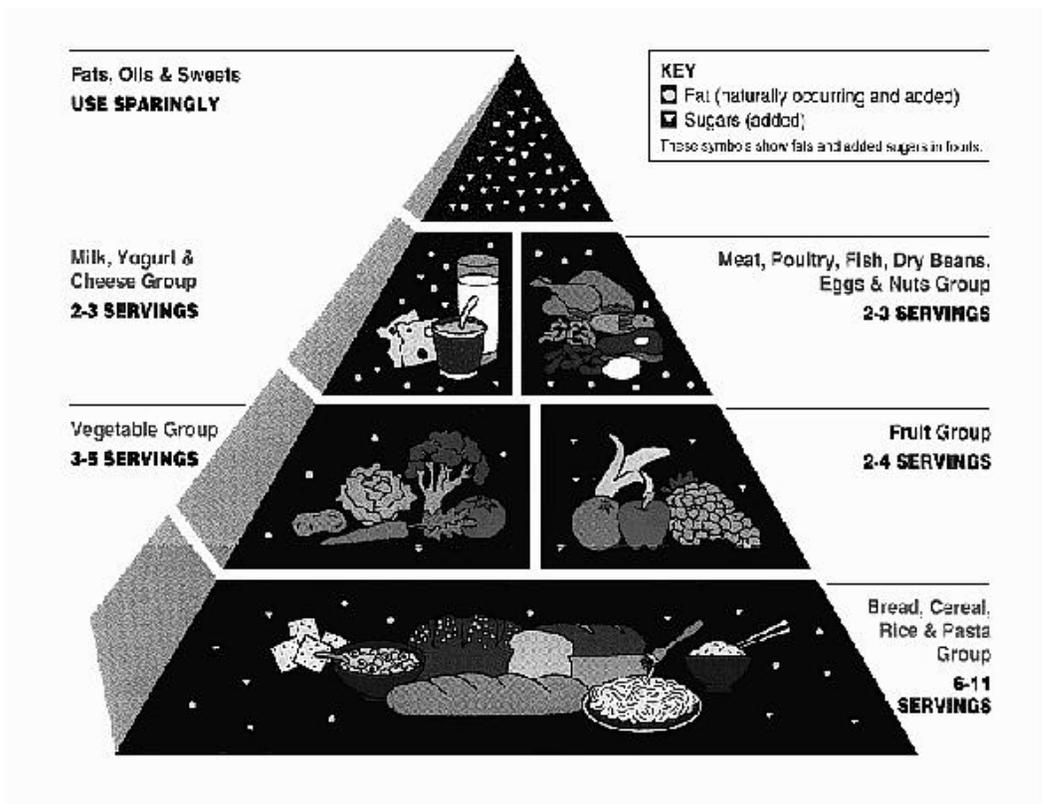


NUTRITION

A healthy diet is important to our children's health and well being. A child is protected in many ways by eating meals and snacks that are low in fat and balanced, with plenty of grains, fruits, vegetables and protein foods (meat, poultry, fish, dairy, eggs, nuts or dried beans). We know that when our diets are out of balance with the natural and healthy way of eating, we increase our risk of cancer, heart disease, diabetes and obesity.

The foods that Native Americans have traditionally eaten have maintained balanced, good health for many generations. Game, fowl and fish, root vegetables, fruits, berries and nuts have traditionally been prepared by steaming, boiling, broiling and baking, without adding fats.

The food pyramid is a good guide to a healthy, balanced diet.



Less lead is absorbed on a full stomach, so if a child eats meals and snacks regularly, the lead that he or she might come into contact with will do less damage. As long as a child eats moderate amounts at each snack and meal plus gets a good amount of exercise, it is best that they eat not only regular meals but also regular, healthy snacks. Snacks do not have to be sweets and high-fat processed foods (such as potato chips, pastries, etc.), but can consist of fruits, cereals, vegetables, crackers, cheese, etc.

By learning from our traditions and being careful about food choices for our children, we can give our children a better future.



When children eat well, with plenty of calcium, iron, vitamin C, zinc, and selenium and not too much fat, their bodies can also protect them better against lead poisoning. A diet with generous servings of dark green leafy vegetables and fruits, whole grains and cereals, lean meats, seafood, and dried beans will provide good protection against lead poisoning.

Although a healthy diet is the best way for a child to get nutrients, nutritional supplements are sometimes recommended. Your doctor or nurse or a nutritionist can help you select the appropriate supplement.

Serve a low fat diet.

Avoid fried foods, fast foods, and processed snack foods (chips, pastries, ice cream, etc.) Steam, boil, broil and bake foods, rather than frying. Eat a minimal amount of butter, margarine, mayonnaise, and salad dressing. Serve low-fat dairy products. Note, however, that although added fat is not healthy for anyone, infants up to age two should be given breast milk, whole milk, or soy milk, not low-fat milk.

Serve foods rich in calcium.

- Fish (especially canned fish *with* bones) and fresh fish
- Dairy products
- Green leafy vegetables
- Black strap molasses



- Broccoli
- Tofu
- Peanuts
- Dried fruits
- Sunflower seeds
- Dried beans



Serve foods rich in iron.

- Sunflower seeds
- Beef
- Dried beans and peas
- Tuna fish
- Nuts
- Peanut butter
- Poultry
- Eggs
- Fish



- Shellfish
- Strawberries
- Raisins/dried fruit
- Tofu
- Wheat germ
- Black strap molasses
- Dark green vegetables
- Iron-fortified cereals
- Organ meats



Foods rich in vitamin C.

- Dark green vegetables

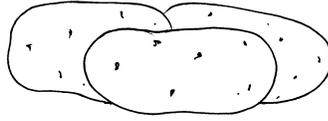


- Asparagus



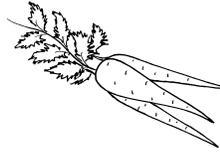
- Cauliflower
- Brussels sprouts
- Citrus fruits and juices
- Bell pepper

- Strawberries
- Tomato
- Potato with skins

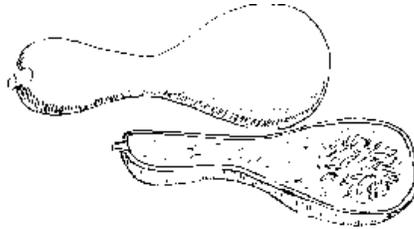


Serve foods rich in zinc.

- Sunflower seeds
- Dried beans
- Shellfish
- Whole grains
- Dairy products



- Eggs
- Poultry
- Fish
- Brewer's yeast





ACTIVITIES TO TEACH YOUNG CHILDREN ABOUT LEAD POISONING PREVENTION

Lessons on lead poisoning prevention can be tied into a number of curriculum areas. The basic messages to teach children are:

- Lead poisoning can make them sick in a way they might not be able to get better from.
- A blood test can tell whether they have lead poisoning.
- They can get lead poisoned from paint, dust and dirt.
- If their home is old and has lead paint, it should be washed, mopped and wet wiped, not dusted, or swept and vacuumed with a regular vacuum cleaner.
- They should wash their hands with soap and warm water before they eat or sleep and after they play.
- They should leave their shoes near the outside door and wear slippers or socks when they are inside, or wipe their feet well on a mat before entering their home or day care.
- They should eat healthy foods.
- They should stay away from paint chips and dust.

Since the messages have to do with health and safety, hygiene, and nutrition, they can be worked into the curriculum in a variety of ways. Both indoor and outdoor safety are involved, because children can get lead poisoning from both soil outside and paint and dust inside. It can also tie in with a unit on community helpers, because doctors and nurses help protect children from being hurt by lead poisoning by determining whether they have lead in their blood. It can tie into gardening or springtime units dealing with dirt or mud play, since soil can contain lead as well.

Curriculum Tie-Ins Include:

- Health
- Growth and development
- Germs and how they spread
- Personal hygiene
- Disease and screening
- Housekeeping
- Nutrition/Cooking
- Gardening
- Community Helpers
- Doctors, nurses
- Safety in the Home
- Bike/outdoor safety
- Springtime, playing in dirt, mud

It is recommended that these activities be not be used all at once, but be spaced out over time, to be most effective.



Circle Time/Literacy Activities

Activity 1. Felt Board Story: *Two Friends Learn About Lead*

Objectives:

- To explain how children get too much lead in their bodies.
- To show how doctors find out about this lead and treat it.
- To describe actions that children can take to reduce the harmful effects of lead.

Key concepts

- When lead gets inside children's bodies, it makes them sick.
- They will have to go to a doctor's office or clinic to have tests done.
- If they have too much lead in their bodies, they will need to take medicine to get it out.
- There are four good ways for children to keep lead from getting into their bodies and staying there:
 - They should wash their hands with soap and water before they eat and sleep and after playing outdoors.
 - They should leave their shoes near the outside door and wear slippers or socks when they are inside their homes or daycare, or wipe their shoes well on a mat before entering.
 - They should eat healthy foods.
 - They should stay away from paint chips and dust.

Materials

- Felt board
- Felt board figures (see patterns)
- Story: "Two Friends Learn About Lead"

Preparation

- Make the felt board figures using the patterns provided. There are two easy ways to do so:
 1. Photocopy the pattern pages and cut out the patterns on the photocopy. (If necessary, enlarge the figures on the copier.) Trace the patterns onto pieces of felt available in many fabric, discount, and art supply stores). Use different colors for different objects. Decorate by writing on the shapes with markers or by gluing smaller, contrasting pieces of felt onto the shapes.



2. Photocopy the pattern pages and color in the objects on the photocopy. (If necessary, enlarge the figures on the photocopier.)
 - Cut out each object and glue a piece of felt onto the back.
 - Make a felt board using a large piece of felt and a cardboard backing.
 - The finished size should be about 2 feet by 3 feet, or large enough so that all the children can easily see the board and the figures.
 - Photocopy the story and fill in the blanks. Select a boy's name and a girl's name that are appropriate for your group. If necessary, modify the story to appeal to the children in your group.
 - Practice reading the story and placing the figures on the board until you feel confident that you can keep the children's attention.

Setup

- Place the felt board so that all the children in the group can see it.
- Arrange the felt figures as they appear in the story and for ease of placement on the felt board.
- Sit to one side of the board so that you can easily place the felt figures on the board and observe the children's response to the story.

Procedure

- Read the introduction aloud to prepare the children for the story.
- Read the story and show the children the actions using the felt board and figures.
- After the story, go over the discussion questions with the children.
- Gently correct any wrong answers or misunderstandings.
- Look for signs that a child may be overly worried or upset by the story.

Closure

- Leave the felt board and story figures out and let the children retell the story in their own words.
- Correct any misunderstandings that they may have.

**Possible Misunderstanding**

All paint has lead, so painting at the easel isn't safe anymore.

Pencils have lead, so they aren't safe to use.

Every time they get sick, it's because they have too much lead in their bodies

- Talk to any child who seems worried or upset by the story. Try to discover what is bothering him or her. You may wish to speak with this child's parent or guardian about his or her response to the story.

Corrections

Easel paint and other paints used in the child care center do not contain lead. They are safe to use.

Even though people sometimes call the black part of the pencil "lead," that material isn't really lead, so pencils are safe to use.

Children get sick for many different reasons, including colds, flu, and other common childhood diseases, Their parents, guardians or doctors can find out what is making them sick.



Two Friends Learn About Lead

Introduction

I am going to tell you a story about two friends who get very sick because they ate paint chips and played with dirt that contained lead. These children had to go the [doctor's office or clinic] _____ and take medicine to get better. Now, these friends want to tell you what to do so lead won't make you sick!

Story

Once upon a time, there were two friends who lived in [houses, apartments] _____ right next to each other. One friend was called [girl's name] _____ and the other friend was called [boy's name] _____.

[Girl's name] _____ [boy's name] _____ liked each other so much that they would play together every day. Sometimes they played cars, and they would drive their [bikes, trikes, or hot wheels] _____ all over the [backyard, play yard, or playground] _____. making lots of loud car sounds. Other times they would play in the sandbox all day long!

Of all the games they played together, their favorite was "Honey, I'm Home!" When they played this game, [girl's name] _____ was always the mommy and [boy's name] _____ was always the daddy, and they would always make the sandbox their house!

Sometimes [girl's name] _____ would come into the house and say, "Homey, I'm home!" Then [boy's name] _____ would say, "Okay, honey! I'm in the kitchen. Come and help me make dinner!"

Other times, [boy's name] _____ would walk in the door and say "Honey, I'm home! and [girl's name] _____ would say, "Okay, honey! I'm in the kitchen. Come and help me make dinner!"

Whenever they played this game, they would look all over the yard for things to "eat" for dinner. Sometimes they would pull up grass and pretend it was lettuce. Other times, they would collect rocks, and leaves and twigs and pretend that they were macaroni and cheese!

They would look for a pretend "dessert." Most of the time, they would go over to the steps of the [house, apartment] _____ to scrape up the paint chips that had fallen into the dirt. And then they would go over to the wall of the [house,



apartment] _____ to pick off the paint chips that were sticking up. They would pretend that these things were cookies!

Once they had found all their “food,” they would pretend to eat their whole “dinner.”

Most of the time, they didn’t really put these things in their mouths. But sometimes, when they were laughing and talking and having fun, they would forget that they were only pretending. Then they would eat the paint chips and the dirt and the grass and the twigs and the rocks! Whenever this happened, they would spit the pretend food onto the ground. But sometimes, by accident, they would swallow some pieces of dirt and paint chips. This is what made [girl’s name] _____ and [boy’s name] _____ sick!

One day, when [girl’s name] _____ and [boy’s name] _____ woke up, they didn’t feel like playing with each other. They felt sick! Their heads hurt and their tummies ached. [Girl’s name] _____ felt so tired that she didn’t want to get out of bed, and [boy’s name] _____ felt grumpy and cried for no reason.

The children’s [mothers, fathers, parents, or guardians] _____ became worried. They said, “Whatever could be wrong with our children?” [Girl’s name] _____ and [boy’s name] _____ look sick and act sick, but they don’t have runny noses or coughs or temperatures!”

Finally, the [mothers, fathers, parents, or guardians] _____ decided to take the children to the [doctor’s office or clinic] _____ for a checkup. The doctor checked the children and listened carefully to the [mothers, fathers, parents, or guardians] _____.

Then the doctor asked questions about the children’s homes and play areas. The doctor asked if there was any chipping, peeling, or missing paint in the home or in the yard or on the children’s toys. The [mothers, fathers, parents, or guardians] _____ said ‘Yes, there is. There’s some chipping and peeling paint in the yard where the children play every day!’”

Then the doctor said, “I Think we should test the children to see if they have lead in their bodies. Lead can be found in paint that has chipped, peeled or turned to dust. If it gets inside the bodies of children, it can make them sick, just like [girl’s name] _____ and [boy’s name] _____.

The doctor told [girl’s name] _____ and [boy’s name] _____ that they would have to have their blood tested. The children were scared. “Will it hurt” asked



[girl's name]. "Just a little," said the doctor. "Can I cry?" asked [boy's name] _____. "Sure you can," said the doctor.

The children sat on their [mother's, father's, parents, or guardian's] laps, while the doctor pricked their fingers with a needle and took some blood. "Ouch!" said the [girl's name] _____. "Ow!" said [boy's name] _____. "It's all over!" said the doctor as she gave each of them a [lollipop or sucker] _____.

The blood tests showed that [girl's name] _____ and [boy's name] _____ had lead inside their bodies, so the doctor gave them medicine to help make them feel better. The doctor also told the children that they could do things to stop lead poisoning.

This is what the doctor told them

- "Children, you can wash your hands with soap and water before you eat and sleep and after you "lay outdoors."
- "Children, you can leave your shoes near the outside door and wear slippers or socks when you are inside your home or day care, or wipe your shoes well on a mat before you go inside,"
- Children, you can eat healthy foods that keep lead from staying inside your body. Some of these foods are dried beans, milk, cheese, yogurt, lean meat and green vegetables like collards, beans, broccoli, and spinach."
- "Children, you can stay away from paint chips and dust."

The children thought about everything the doctor had just said. The doctor asked [girl's name] _____ and [boy's name] _____ if they could do these things, The children smiled and said, "Yes, we can."

This is what the children said to the doctor:

- "Yes, we can wash our hands with soap and water before we eat and sleep and after we play outdoors."
- "Yes, we can leave our shoes near the outside door and wear slippers or socks when we are inside our home or day care, or wipe our shoes well on a mat before we go inside,"
- "Yes, we can eat healthy foods that keep lead from staying inside our bodies. Some of these foods are dried beans, milk, cheese, yogurt, lean meat and green vegetables like collards, beans, broccoli, and spinach."
- "Yes, we can stay away from paint chips and dust."

Then the children thought of something else that they could do:

"We can tell all of our friends how they can keep lead out of their bodies, too!"



And that is what they have just told you!

Discussion Questions:

- What made [girl's name] _____ and [boy's name] _____ sick?" {Answer: Paint that chipped, peeled or flaked.}
- What happened when [girl's name] _____ and [boy's name] _____ went to the [doctor's office or clinic] _____? [Answer: The children were tested for lead in their blood.]
- Why did the doctor have to test [girl's name] _____'s and [boy's name] _____'s blood? [Answer: Testing it was the only way to be sure that lead was making them sick.]
- Do you think it hurt to have the blood tests done? {Answer: It probably hurt a little.}
- What would you do if you had to have blood taken?
- Why did the children have to take medicine? {Answer: IT was the only way to get the lead out of their bodies.}
- If you were sick like [girl's name] _____ and [boy's name] _____, would you take the medicine that the doctor gave you?
- What are some things that you could do to make sure that you don't get lead inside your body?
- [Answer: We can wash our hands with soap and water before we eat and sleep and after we play outdoors. We can leave our shoes near the outside door and wear slippers or socks when we are inside our home or day care, or wipe our shoes well on a mat before we go inside.
- We can eat healthy foods that keep lead from staying inside our bodies. We can stay away from paint chips and dust.]



Activity 1 (Felt Board Story) Extensions

The felt board activity can be extended in the following ways:

A: Dramatization

Procedure (same as with felt board, adding after second step):

- Allow children to take turns acting out parts of the story.

B: Story Telling With Props

Materials

- Toy cars
- Sand box toys
- A bunch of grass
- A few small rocks
- A few small twigs
- Cardboard cutouts of paint chips
- Toy doctor kit, or some piece of toy doctor equipment
- Toy needle
- Lollipop
- Cards with names of children in class
- Note: use a picture of the object if you are not able to obtain the object itself

Procedure (same as with felt board, except for second step:)

- Read the story to children, holding up the appropriate prop, picture or card when it is mentioned.

C: Story Telling with Puppets

Materials

- Felt board figures (see patterns)
- Crayons or markers
- Scissors
- Cardboard
- Glue
- Popsicle sticks



or

- Lunch-sized paper bags

Preparation

- Make cardboard figures using the patterns provided. There are two ways to do so.
 1. Coloring in photocopy pattern
 - a) Photocopy the pattern pages.
 - b) Color in the objects on the photocopy or have the children color them in. Paste chalk dust on the picture of dust. Paste real new (non-lead) paint chips on the picture of the paint chip, or paint it with white tempera paint.
 - c) Cut out each object.
 - d) Trace the patterns onto cardboard and cut out cardboard shapes.
 - e) Glue the colored patterns onto the cardboard.
 2. Coloring in cardboard shape
 - a) Photocopy the pattern pages.
 - b) Cut out the patterns on the photocopy.
 - c) Trace them onto cardboard.
 - d) Color the cardboard shapes, or have children color them. Use different colors for different objects. Decorate by writing on the shapes with markers. Paste chalk dust on the picture of dust. Paste real new (non-lead) paint chips on the picture of the paint chip, or paint it with white tempera paint.
 - e) Cut out the cardboard shapes.
 3. Glue cardboard figures onto Popsicle sticks to make puppets.

or

1. Glue cardboard figures onto paper bags to make puppets.

Procedure (same as with felt board, except for second step:)

- Read the story and use the puppets to show the children the actions.
- Allow children to take turns working the puppets for parts of the story.



Activity 2. Lead Paint and Dust Source Chart

Objective

- To explain to children why lead dust is harmful and where lead dust might occur in a home or daycare.

Key Concepts

- There are parts of the body that we can't see but we need to live (heart, skeleton, brain).
- Lead can make you sick. It's a sickness you can never get better from.
- Lead dust is created from peeling, flaking lead paint.
- Lead dust is created when lead-painted surfaces rub against each other.

Introduction

- Explain to the children that lead is a poison that can make children sick and can hurt their brains, that it's a sickness they might never get better from, and that old lead paint has lead in it.
- Explain that when something hard or rough rubs on wood with lead paint on it, very tiny dust is formed. It can't be seen because it is so small, but the dust has the poison in it and can hurt children, especially their brains.
- Discuss the sources of lead in the home and discuss the sources of lead paint and lead dust in a home or day care center, illustrating with the pictures at the end of this manual. Use the manual for background information.

Materials

- Newsprint or chart paper
- Marker

Preparation

- Draw a chart with each child's name on one side and a space on the other side.

Procedure

- Ask each child in turn to name a place or object that could have lead dust or lead paint.
- Write each child's suggestion on the chart next to that child's name.

**Closure**

- Ask the children what they have learned about the sources of lead paint and dust.
- Ask them which of the sources they mentioned could also be in a day care.

Home-School Connection

- Include information in your parent newsletter about this activity and its goals, as well as basic tips for preventing lead poisoning in the home (included in this manual).



Activity 3. Healthy Food/Unhealthy Food Chart

Objective

- To familiarize children with healthy foods that will help keep lead from staying in their bodies and making them sick.

Key Concepts

- Eating good foods, from the food pyramid, keeps us healthy and strong.
- Eating foods that are rich in calcium, iron, vitamin C and zinc, and low in fat help protect against lead poisoning by helping to keep lead from staying in children's bodies.

Introduction

- Discuss what a healthy diet is, using the food pyramid.
- Based on the nutrition section of this manual, give examples of foods that have the four nutrients important for protecting children from lead poisoning (iron, calcium, vitamin C and zinc).

Materials

- Newsprint or chart paper
- Marker

Preparation

- Draw a chart with HEALTHY written on one side and UNHEALTHY written on the other.
- Collect pictures of food from children's work and from this manual.

Procedure

- Ask children to name foods and tell whether they are healthy or unhealthy.
- Write the name of the food on the chart in the appropriate column.
- Point to pictures of food, either on a food pyramid, in other work children might have done, or in the back of this manual, and ask if they are healthy or unhealthy.

Closure

- Ask the children what they have learned about healthy foods and unhealthy foods.
- Ask them to tell which of the healthy foods they like best.

**Home-School Connection**

- Include information in your parent newsletter about this activity and its goals. Also provide information about nutrition and lead poisoning prevention (provided in the manual).



Activity 4. Memory Game

Objective

- To reinforce ways to keep lead from getting into children's bodies and sources of lead paint and dust in a home.

Key Concepts

- There are four good ways for children to keep lead from getting into their bodies and staying there where it can make them sick.
- They should wash their hands with soap and water before they eat or sleep and after they play outdoors.
- They should leave their shoes near the outside door and wear slippers or socks when you are inside their homes, or wipe their feet well on a mat before entering.
- They should eat healthy foods.
- They should stay away from paint chips and dust.
- Children can get lead in their bodies, which can make them sick, from lead paint and lead dust. Lead paint and lead dust can come from painted radiators, window sills, woodwork, or door frames (in addition to dirt).

Materials

- Four Message Cards (provided at end of manual)
- Eight Peebee Paint Chip and Dusty Cards (provided at end of manual)

Preparation

- Make two photocopies of the pages with the four "Lead Busters" posters, the four Message Cards and the eight Peebee Paint Chip and Dusty Cards, onto heavy paper if possible.
- Color them or have the children color them.
- Cut the pages into cards.
- Cover them with clear contact paper (optional).

Introduction

- Ask the children whether they remember the felt board story about the two children who got very sick because they ate paint chips and played with dirt that contained lead.
- Ask the children whether they remember what they can do to keep lead from getting into their bodies and staying there.



- Point to the “Lead Busters” posters to reinforce the four prevention messages. Tell the children:
 1. Wash your hands with soap and water before you eat or sleep and after you outdoor play.
 2. Leave your shoes near the outside door, and wear slippers or socks when you are inside your home, or wipe your feet well on a mat before entering.
 3. Eat healthy foods that keep lead from staying in your body. These foods include dried beans, milk, cheese, yogurt, meat and vegetables like greens, beans and broccoli.
 4. Stay away from paint chips and dust.
- Introduce the characters Peebee Paint Chip and his cousin Dusty by showing the children some of the picture cards. Have them identify each of the Peebee and Dusty cards by asking “Is this Peebee or is it Cousin Dusty?”
- Point out that Peebee looks like a flake of peeling paint. Sometimes Cousin Dusty looks like dust from a piece of chalk, and sometimes Cousin Dusty looks like baby powder. Emphasize that Peebee and Dusty can come in different colors and can be found every where.
- Point out some of the places that Peebee Paint Chip can be found, using the cards to illustrate. Point out some of the places that Dusty can be found, using the cards to illustrate
- Shuffle the cards and spread them out face down on the floor in front of the children.

Procedure

- Have the children take turns turning two cards over at a time over to see the pictures, and trying to remember from turn to turn the location of the various cards so that they can match them up in pairs.
- Each time a child turns up a picture of Peebee Paint Chip or Dusty, ask what the picture is, whether it’s Peebee Paint Chip or Dusty, and where in the home it is (on the window, radiator, door frame, etc.)
- Each time a child turns up a picture of one of the lead buster messages, ask the child to recite the prevention message aloud, beginning with the phrase, “I can beat lead by...” and finishing with one of the lead buster messages.
- Praise the child’s response and have him or her return to the group.
- When a child succeeds in turning over two matching cards, the child can keep those cards and take another turn.
- Continue until all the cards have been matched and removed from the floor (or until everyone has had at least one turn if time and attention do not allow completion).

**Closure**

- Ask the children whether they have tried to follow any of the lead busters messages.
- Correct any misunderstandings that the children may have (see activity 1 for examples).
- Talk to any child who seems worried or upset about lead. Try to discover what is bothering him or her. You may wish to speak to the child's parent or guardian about his or her response to the activity.

Home-School Connection

- Provide basic lead poisoning prevention information to families through newsletters or flyers, including the four lead busters messages taught to the children.

Extension: Healthy Food Memory

The same procedure can be followed using pictures of healthy foods made into cards to reinforce the concept of healthy foods which help to keep lead from staying in our bodies. (Pictures of healthy foods are in the back of the manual.)



Science Activities

Activity 5. Lead Dust Simulation No. 1

Objective

- To explain to children why lead dust is harmful and to show how dust spreads.

Key Concepts

- There are parts of the body that we can't see but we need to live (heart, skeleton, brain).
- Lead can make you sick. It's a sickness you can never get better from.
- When dust gets on your hands and clothes, it can spread around.
- Dust on your hands gets cleaned off when you wash your hands.

Introduction

- Explain to the children that lead is a poison that can make them sick and can hurt their brains, that it's a sickness that they might never get better from, and that old lead paint has lead in it.
- Explain that when something hard or rough rubs on wood with lead paint on it, very tiny dust is formed. It can't be seen because it is so small, but the dust has the poison in it and can hurt children, especially their brains.
- Discuss the sources of lead in the home and discuss the sources of lead paint and lead dust in a home or day care center, illustrating with the pictures at the end of this manual. (Use the manual for background information.)
- Explain that it is all right to touch chalk dust, because it is not poisonous, but if this were lead dust, it would be poisonous, and it shouldn't be touched.

Materials

- Chalk board for each child
- Chalk for each child

Preparation

- Distribute a chalk board and chalk to each child.

**Procedure**

- Ask the children to draw whatever they like on the chalk board.
- After a while, ask them to hold up their hands and tell what they notice.
- If necessary, point out that there is chalk dust on their hands.
- Ask them to look at their clothing and tell what they notice.
- If necessary, point out that there is chalk dust on their clothes.
- Ask them how they think the dust got there.
- Ask them what they think would happen if they touched more things with their hands.
- Ask them how they think germs and lead dust spread.
- Ask them what they think they should do.
- Have them wash their hands.

Closure

After they come back from washing their hands, ask them:

- What did you learn about dust spreading?
- How can we stop it from spreading?

Home-School Connection

- Include information in your parent newsletter about this activity and its goals, as well as basic tips for preventing lead poisoning in the home (provided in the manual).



Activity 6. Lead Dust Simulation No. 2

Objective

- To explain to children why lead dust is bad and to show children how dust spreads.

Key Concepts

- There are parts of the body that we can't see but we need to live (heart, skeleton, brain).
- Lead can make you sick. It's a sickness you can never get better from.
- Dust spreads to your hands or to a surface when you hold an object (for example a toy, bottle, pacifier, etc.) that touched the chalk dust.
- Dust spreads when you touch the surface with your hand that has dust on it.
- Dust spreads to your clothes once it gets on your hands.
- Dust is cleaned up when you wash your hands.

Introduction

- Explain to the children that lead is a poison that can make them sick and can hurt their brains, that it's a sickness that they might never get better from, and that old lead paint has lead in it.
- Explain that when something hard or rough rubs on wood with lead paint on it, very tiny dust is formed. It can't be seen because it is so small, but the dust has the poison in it and can hurt children, especially their brains.
- Discuss the sources of lead in the home and discuss the sources of lead paint and lead dust in a home or day care center, illustrating with the pictures at the end of this manual. (Use the manual for background information.)
- Explain to the children that the "dust" in this activity is made of a kind of powder made from corn, called corn starch. This powder is not poisonous, and it's OK to touch it, but lead dust is poisonous, and you should not touch it. You can see this powder, even though it is made up of tiny, tiny pieces, but you can't see lead dust. The tiny pieces of lead dust are much, much smaller.

Materials

- Corn starch
- A few small toys and pacifiers
- A few old dark colored socks
- Several trays



Preparation

- Cover half of the trays with corn starch.

Procedure

- Have children take turns placing specific objects in corn starch and then setting them down in a clean tray.
- Ask them what they notice.
- Allow them to touch the second tray with their hands.
- Ask them what they notice.
- Have children take turns putting old socks on their hands and moving them through corn starch, and then onto a clean tray.
- Have children put old socks on over their shoes and let them step on the corn starch to see how it gets picked up by their feet.
- Have them watch how it spreads around on a designated portion of the floor when they walk on it.
- Ask them what they notice.
- After a while, ask them to hold up their hands and tell what they notice.
- If necessary, point out that there is “dust” on their hands.
- Ask them to look at their clothing and tell what they notice.
- If necessary, point out that there is “dust” on their clothes.
- Ask them how they think the “dust” got there.
- Ask them what they think would happen if they touched more things with their hands.
- Ask them how they think germs and lead dust spread.
- Ask them what they think they should do.
- Have them wash their hands and the toys and pacifiers.
- Show how the “dust” is spread around when it is swept but is cleaned up nicely when it is mopped up or wiped up with a wet towel.
- Let the children try cleaning up the “dust” with a wet towel.

Closure

After they come back from washing their hands, ask them:

- What did you learn about dust spreading?
- What would happen if you touched your mouth with your hands before you washed them.?
- What would happen if you touched food with your hands before you washed them?



- How can we keep lead dust from spreading?

Home-School Connection

- Include information in your parent newsletter about this activity and its goals, as well as basic tips for preventing lead in poisoning the home (provided in the manual).



Art Activities

Activity 7. Lead Sources Collage

Objective

- To explain to children why lead dust is harmful and where lead dust can occur in a home or day care.

Key Concepts

- There are parts of the body that we can't see but we need to live (heart, skeleton, brain).
- Lead can make you sick. It's a sickness you can never get better from.
- Lead dust is created from peeling, flaking paint.
- Lead dust is created when lead-painted surfaces rub against each other.

Introduction

- Explain to the children that lead is a poison that can make them sick and can hurt their brains, that it's a sickness that they might never get better from, and that old lead paint has lead in it.
- Explain that when something hard or rough rubs on wood with lead paint on it, very tiny dust is formed. It can't be seen because it is so small, but the dust has the poison in it and can hurt children, especially their brains.
- Discuss the sources of lead in the home and discuss the sources of lead paint and lead dust in a home or day care center, illustrating with the pictures at the end of this manual. (Use the manual for background information.)

Materials

- A stack of home-oriented magazines (with pictures of interiors of old homes, or home renovation or repairs, if possible)
- Scissors
- Glue
- Sheets of paper for each child, or large newsprint for class project

Preparation

- Cover tables with newspaper to protect from glue drippings.
- Set out materials in the workspace.

**Procedure**

- Ask children to cut out pictures of places that can have lead dust or lead paint.
- Each child could create his or her own collage,

or

- They could all work together to create a larger group collage.

Closure

- Ask the children what they learned about where lead dust can be found
- Ask the children why it is important to know where lead dust is.

Home-School Connection

- Include information in your parent newsletter or a flyer about this activity and its goals, as well as basic tips for preventing lead poisoning in the home (provided in the manual).



Activity 8. Collage of Healthy Foods

Objective

- To familiarize children with healthy foods that will help keep lead from staying in their bodies and making them sick.

Key Concepts

- Eating good foods, from the food pyramid, keep us healthy and strong.
- Eating foods that are rich in calcium, iron, vitamin C and zinc, and low in fat help protect against lead poisoning by helping to keep lead from staying in children's bodies.

Materials

- A stack of magazines with pictures of foods
- Scissors
- Glue
- Sheets of paper for each child or newsprint for a group project

Preparation

- Cover tables with newspaper to protect from glue drippings.
- Set out materials in the workspace.

Introduction

- Discuss what a healthy diet is, using the food pyramid.
- Based on nutrition section of this manual, give examples of foods that have the four nutrients important for protecting children from lead poisoning (iron, calcium, vitamin C and zinc).

Procedure

- Ask children to cut out pictures of foods that help keep lead from staying in their bodies.
- Each child could create his or her own collage,
or
- They could all work together to create a larger group collage.

Closure

- Ask the children what they learned about healthy food.
- Ask them to tell what their favorite healthy foods are..

**Home-School Connection**

- Include information in your parent newsletter or a flyer about this activity and its goals, as well as basic tips for preventing lead poisoning in the home (provided in the manual).



Activity 9. Cut Out And Paste Healthy Foods

Objective

- To familiarize children with healthy foods that will help keep lead from staying in their bodies and making them sick.

Key Concepts

- Eating good foods, from the food pyramid, keep us healthy and strong.
- Eating foods that are rich in calcium, iron, vitamin C and zinc, and low in fat help protect against lead poisoning by helping to keep lead from staying in children's bodies.

Materials

- Crayons (option 1)
- Construction paper (option 2)
- Scissors
- Glue
- Paper plates

Preparation

- Cover tables with newspaper to protect from glue drippings.
- Set out materials in the workspace.

Introduction

- Discuss what a healthy diet is, using the food pyramid.
- Based on the nutrition section of this manual, give examples of foods that have the four nutrients important for protecting children from lead poisoning (iron, calcium, vitamin C and zinc).

Procedure

- Have children color in the food shapes provided and cut them out
or
- Have children cut out food shapes provided in manual, trace around them onto construction paper, and cut out the shapes from the construction paper.
- Have them glue the paper food onto paper plates



- This exercise can be extended to include cutouts of knives, forks and spoons to lay next to the plate and strips of paper to weave into a place mat to put the plates on.

Closure

- Ask the children what they learned about healthy food.
- Ask them to tell what their favorite healthy foods are.

Home-School Connection

- Include information in your parent newsletter or a flyer about this activity and its goals, as well as basic tips for preventing lead poisoning in the home (provided in the manual).



Activity 10. Open Ended Drawing

As a follow up for any of these activities, have children draw something related to what they have learned.

Procedure 1

- Have each child create his or her own drawing.
- Ask each child to tell about the drawing.
- Write on the bottom what the child says.
- Compile the drawings into a class book.

Procedure 2

- Have the children work together on a mural.
- Ask each child to tell about the drawing he or she contributed to the mural.
- Write what the artist had in mind on the mural near various pieces.



Music Activities

Activity 11. Drumming Song: “Get the Lead Out”

Objective

- To describe how children should wash their hands to prevent lead from getting into their bodies and making them sick.

Key Concepts

- Washing hands is the best way for children to stop lead from getting into their bodies and making them sick.
- Children need to follow five steps when washing their hands:
 1. Place hands under running warm water.
 2. Apply soap.
 3. Rub hands together.
 4. Clean between fingers.
 5. Rinse well.
- Children must wash their hands with soap and water for 20 seconds to make sure that all the dirt and lead are gone. That’s how long it takes to sing the song.
- Children should wash their hands before they eat or sleep and after they play outside.

Materials

- A Copy of the lyrics to “Get The Lead Out”
- One or more drums

Preparation

- Make up or adapt any drumming rhythm that will fit the words to “Get The Lead Out.”
- Make two photocopies of the lyrics of the song.
- Cover one copy with clear contact paper and post it near the sink where the children wash up.
- Place the other copy of the to “Get The Lead Out”” so that all the children in the group can see it.



Introduction

- Ask the children whether they remember what they can do to keep lead from getting into their bodies and making them sick.
- If necessary, point to the lead busters posters to reinforce the four prevention messages. Tell the children:
- Wash your hands with soap and water before you eat or sleep and after you outdoor play.
- Leave your shoes near the outside door, and wear slippers or socks when you are inside your home, or wipe your feet well on a mat before entering.
- Eat healthy foods that keep lead from staying in your body. These foods include dried beans, milk, cheese, yogurt, meat and vegetables like greens, beans and broccoli.
- Stay away from paint chips and dust.
- Tell the children that there are five steps to washing their hands:
 1. Place hands under running warm water.
 2. Apply soap.
 3. Rub hands together.
 4. Clean between fingers.
 5. Rinse well.
- Tell the children that they are going to learn a special song that will help them remember to wash their hands well. The name of the song is “Get The Lead Out.”

Procedure

- Have the children put on their “listening ears.” Tell them that first you will sing the song to them, and then everyone will sing the song together.
- Hold the song card up and to the side so that all the children can see it.
- Begin singing “Get The Lead Out.”
- Use simple hand motions to illustrate the message of the song.
- Ask the children if they are ready to learn the song.
- When they indicate their readiness, tell them that you will sing the first line and then they can repeat it. Begin teaching the song. Repeat each line as many times as necessary until all or most of the children seem to know it.
- Let the children take turns beating the rhythm on the drum.

Closure

Ask the children the following questions:

- Why do you need to wash your hands? [*Answer: to remove dirt and lead.*]
- How many steps does it take to clean your hands well? [*Answer: Five.*]



- What are the steps? *[Answer: wet hands, apply soap, rub hands together, clean between fingers, and rinse well.]*
- How long should you wash your hands? *[Answer: Twenty seconds, or as long as it takes to sing "Get The Lead Out."]*
- When should you wash your hands to keep lead out of your body? *[Answer: Before eating or sleeping and after playing outside.]*

Home-School Connection

- Send the lyrics of the song home to parents in a newsletter or flyer, along with basic lead poisoning prevention information (provided in the manual).

Get The Lead Out

Lead is bad, it can make you sick.

You can get the lead out with this easy trick

Take warm water and add some soap

Rub your hands together - don't say 'Nope.'

Clean between your fingers, then rinse and rinse.

Sing this little ditty - it gives you the hints.

Get the lead out, get the lead out

Get the l-e-a-d lead out!



The following song can be taught in addition or instead:

Wash Your Hands

Wash your hands before you eat
Wash your hands before you sleep
Wash your hands after outdoor play
Wash your hands every day

- * Warm water
- * Soap
- * Rub hands
- * Between fingers
- * Rinse



Activity 12. Piggy Back Songs

Objective

- To reinforce the importance of hand washing hands to protect from lead poisoning, and other lead poisoning prevention concepts

Key Concepts

- Washing hands is the best way for children to stop lead from getting into their bodies and making them sick.
- Children should wash their hands before they eat or sleep and after they play outdoors.
- (Other concepts that may be addressed in improvised songs.)

Materials

- Lyrics of “Wash, Wash, Wash Your Hands“ copied onto thick paper or card stock.

Preparation

- Set out the paper or card with lyrics of “Wash, Wash, Wash Your Hands.”
- Think about some familiar melodies to which lyrics might be put.
- Think of other possible lyrics from other lead poisoning prevention concepts.

Introduction

- Ask the children whether they remember what they can do to keep lead from getting into their bodies and making them sick.
- If necessary, point to the “Lead Busters” posters to reinforce the four prevention messages:
 1. Wash your hands with soap and water before you eat or sleep and after outdoor play.
 2. Leave your shoes near the outside door, and wear slippers or socks when you are inside your home, or wipe your feet well on a mat before entering.
 3. Eat healthy foods that keep lead from staying in your body. These foods include dried beans, milk, cheese, yogurt, meat and vegetables such as greens, green beans and broccoli.
 4. Stay away from paint chips and dust.
- Tell the children they are going to learn a special song that will help them remember to wash their hands well. The name of the song is “Wash, Wash,



Wash Your Hands..” Tell them that it has the same tune as “Row, Row, Row Your Boat.”

- Similarly introduce other *piggy back* songs if you know any.

Procedure

- Have the children put on their “listening ears.” Tell them that first you will sing the song to them, and then everyone will sing the song together.
- Hold the song card up and to the side so that all the children can see it.
- Begin singing “Wash, Wash, Wash Your Hands.”
- Use simple hand motions to illustrate the message of the song.
- Ask the children if they are ready to learn the song.
- When they indicate their readiness, tell them that you will sing the first line and then they can repeat it. Begin teaching the song. Repeat each line as many times as necessary until all or most of the children seem to know it.

Closure

- Ask the children the following questions:
- Why do you need to wash your hands? [*Answer: to remove dirt and lead.*]
- When should you wash your hands to keep lead out of your body? [*Answer: Before eating or sleeping and after playing outdoors.*]

Home-School Connection

- Send the lyrics of the song home to parents in a newsletter or flyer, along with basic lead poisoning prevention information.



Wash, Wash, Wash Your Hands

(to the tune of *Row, Row, Row Your Boat*)

Wash, wash, wash your hands

Wash the lead away

Before you eat, before you sleep

And after outdoor play



Activity 13. “Today is Monday” Song

Objective

- To familiarize children with healthy foods that will help keep lead from staying in their bodies and making them sick.

Key Concepts

- Eating good foods, from the food pyramid, keep us healthy and strong.
- Eating foods that are rich in calcium, iron, vitamin C and zinc, and low in fat help protect against lead poisoning by helping to keep lead from staying in children’s bodies.

Materials

- Lyrics of “Today is Monday” copied onto paper or card stock.

Preparation

- Set out the paper or card with lyrics of “Today is Monday.”
- Collect pictures of food from children’s work and from this manual.

Introduction

- Ask the children whether they remember what they can do to keep lead from getting into their bodies and making them sick.
- If necessary, point to the lead busters posters to reinforce the four prevention messages:
 1. Wash your hands with soap and water before you eat or sleep and after outdoor play.
 2. Leave your shoes near the outside door, and wear slippers or socks when you are inside your home, or wipe your feet well on a mat before entering.
 3. Eat healthy foods that keep lead from staying in your body. These foods include dried beans, milk, cheese, yogurt, meat and vegetables like greens, green beans and broccoli.
 4. Stay away from paint chips and dust.
- Tell the children that they are going to learn a special song that will help them learn about healthy foods. It is called “Today is Monday.”
- Explain that they will name a healthy food for each day of the week. The children should think of healthy foods they like and raise their hands to be called on during each verse.
- Explain that in this song, each time a new day is added they will go back and repeat all the other days, so they should be careful to listen and try to remember which food was named for each day.

**Procedure**

- Have the children put on their “listening ears.” Tell them that first you will sing the song to them, and then everyone will sing the song together.
- Hold the song card up and to the side so that all the children can see it.
- Begin singing the first verse of “Today is Monday,” using the name of any healthy food familiar to the children to fill in the first verse.
- Remind them that they will be the ones to name the healthy foods for each verse, and that each time they will repeat all the days, so they should be careful to listen and remember the foods that are named.
- Ask the children if they are ready to learn the song.
- When they indicate their readiness, tell them that you will sing the first line and then they can repeat it. Begin teaching the song. Repeat each line as many times as necessary until all or most of the children seem to know it.
- When you come to the place for a food to be named, ask for suggestions and call on students in turn.
- If they are having a hard time coming up with ideas, point to pictures of food, available either on food pyramid, in other work children might have done, or in the back of the manual.

Closure

- Ask the children what they learned about healthy food.
- Ask them to tell what their favorite healthy foods are.

Home-School Connection

- Send the lyrics of the song home to the parents in a newsletter or flyer. Include information about this activity and its goals, as well as basic tips on good nutrition and on lead poisoning prevention (provided in the manual).



Today Is Monday

Today is Monday.

Today is Monday.

Monday _____.

All you hungry children

Come eat some healthy
food.

Today is Tuesday.

Today is Tuesday.

Tuesday _____.

Monday _____.

All you hungry children

Come eat some healthy
food.

Today is Wednesday.

Today is Wednesday.

Wednesday _____.

Tuesday _____.

Monday _____.

All you hungry children

Come eat some healthy
food.

Today is Thursday.

Today is Thursday.

Thursday _____.

Wednesday _____.

Tuesday _____.

Monday _____.

All you hungry children

Come eat some healthy
food.

Today is Friday.

Today is Friday.

Friday _____.

Thursday _____.

Wednesday _____.

Tuesday _____.

Monday _____.

All you hungry children

Come eat some healthy
food.

Today is Saturday.



Today is Saturday.
Saturday _____.
Friday _____.
Thursday _____.
Wednesday _____.
Tuesday _____.
Monday _____.
All you hungry children
Come eat some healthy
food.

Today is Sunday.
Today is Sunday.
Sunday _____.
Saturday _____.
Friday _____.
Thursday _____.
Wednesday _____.
Tuesday _____.
Monday _____.
All you hungry children
Come eat some healthy
food.



Cooking Activities

Activity 14. Rice Pudding: Low-Fat Dessert That Provide Iron, Calcium, Vitamin C and Zinc

Objective

- To introduce a healthy, traditional food that will help keep lead from staying in the children's bodies and making them sick.

Key Concepts

- Eating foods that are rich in calcium, iron, vitamin C and zinc, and low in fat help protect against lead poisoning by helping to keep lead from staying in children's bodies.
- Healthy foods can be fun to make and delicious to eat.
- Rice pudding contains milk, eggs, raisins, and rice.
- Milk, eggs, raisins, and rice are rich in calcium, iron, vitamin C and zinc, and low in fat.

Materials

- Measuring cups (one set for dry ingredients and one for wet ingredients)
- One large mixing bowl and two medium or small mixing bowls
- Casserole dish
- Tablespoon and teaspoon
- Fork or whisk for beating
- Mixing spoon
- Ingredients: white rice, uncooked; sugar; milk; salt; cinnamon; eggs; raisins

Preparation

- Read the recipe for rice pudding to familiarize yourself with the steps for preparation.
- Optional: Draw a picture chart of the ingredients, preparation steps, cooking and serving.
- Optional: Display a poster of the food pyramid for identifying ingredients.
- Assemble all the ingredients and place them on a tray in the order you will use them.
- Assemble all the cooking utensils and place them on another tray.
- Have two children wash and dry the table.
- Have children wash their hands in preparation for the cooking activity.



Remind them about the hand washing rule (wash your hands with soap and water before you eat or sleep and after you play outdoors) and have them sing, “Get the Lead Out” or “Wash Your Hands.”

Introduction

- Ask the children if they remember the four lead busters messages:
 1. Wash your hands with soap and water before you eat or sleep and after outdoor play.
 2. Leave your shoes near the outside door, and wear slippers or socks when you are inside your home, or wipe your feet well on a mat before entering.
 3. Eat healthy foods that keep lead from staying in your body.
 4. Stay away from paint chips and dust.
- Tell the children that they are going to make rice pudding, which has lots of calcium, iron, vitamin C and zinc, and not a lot of fat. Eating foods that have lots of calcium, iron, vitamin C and zinc, and not a lot of fat help keep the lead from staying in their bodies.
- If a food pyramid poster is available, show the children each ingredient you're using and have them find where it is on the food pyramid.
- Explain that everyone will have a turn adding and mixing ingredients.
- Explain that the healthy dessert they make will be served at lunch time.

Procedure

- Read aloud the first steps in the directions and ask the children what is the first thing that needs to be done.
- If you have made a picture chart, point to the pictures to illustrate each step.
- After reading each, check that the children understand by asking some questions, such as “What utensils do we need to get?” and “What ingredients do we need to measure?”

**Closure**

- Ask the children to repeat the rules from the lead busters posters.
- Then ask the children which rule they used in preparing the food and before eating the food. [*Answer: Washing hands.*]
- Ask them which rule they will use when they eat the food. (*Answer: Eating healthy foods.*)

Home-School Connection

- Enclose the recipe in a newsletter or flyer to parents so that they can make it at home. Include information about this activity and its goals as well as basic tips on good nutrition and on lead poisoning prevention.



Rice Pudding Recipe*

3 tablespoons white rice, uncooked
1 1/2 tablespoons sugar
1 quart milk
1/2 teaspoon salt
3/4 teaspoon cinnamon
2 eggs
1/2 cup raisins

1. Rinse rice.
2. Add all other ingredients except eggs.
3. Separate eggs and beat whites until very stiff.
4. Beat yolks and fold yolks into rice mixture.
5. Fold in egg whites.
6. Spoon into casserole dish.
7. Bake in slow oven (250-300 degrees) for 2 hours, stirring several times.

Note: To reduce fat content, low-fat or skim milk can be used instead of whole milk.

*adapted from "The Cooking Post," *The Pueblo of Santa Ana*,
<http://www.cookingpost.com/recipe.htm>



Activity 15. Quahog, or Clam, Chowder: Low-Fat Foods that Provide Iron, Calcium, Vitamin C and Zinc

Objective

- To introduce a traditional, healthy food that will help keep lead from staying in children's bodies and making them sick.

Key Concepts

- Eating foods that are rich in calcium, iron, vitamin C and zinc, and low in fat help protect against lead poisoning by helping to keep lead from staying in children's bodies.
- Healthy foods can be fun to make and delicious to eat.
- Quahog, or clam, chowder contains milk, shellfish and potatoes.
- Milk, shellfish and potatoes are rich in calcium, iron, vitamin C and zinc, and low in fat

Materials

- Knife
- Cutting board
- Measuring cups
- Pot
- Ingredients: salt pork; onions; potatoes; ground-up quahogs; milk; salt and pepper; flour

Preparation

- Read the recipe for quahog, or clam, chowder to familiarize yourself with the steps for preparation.
- Optional: Draw a picture chart of the ingredients, preparation steps, cooking and serving.
- Optional: Display a poster of the food pyramid for identifying ingredients.
- Assemble all the ingredients and place them on a tray in the order you will use them.
- Assemble all the cooking utensils and place them on another tray.
- Have two children wash and dry the table.
- Have children wash their hands in preparation for the cooking activity.
- Remind them about the hand washing rule (wash your hands with soap and water before you eat or sleep and after you play outdoors) and have them sing, "The Get the Lead Out Song" or "Wash Your Hands."



Introduction

- Ask the children if they remember the four lead-busters messages:
 1. Wash your hands with soap and water before you eat or sleep and after outdoor play.
 2. Leave your shoes near the outside door, and wear slippers or socks when you are inside your home, or wipe your feet well on a mat before entering.
 3. Eat healthy foods that keep lead from staying in your body.
 4. Stay away from paint chips and dust.
- Tell the children that they are going to make quahog, or clam, chowder, which has lots of calcium, iron, vitamin C and zinc, and not a lot of fat. Eating foods that have lots of calcium, iron, vitamin C and zinc, and not a lot of fat help keep the lead from staying in their bodies.
- If a food pyramid poster is available, show the children each ingredient and have them find where it is on the food pyramid.
- Explain that everyone will have a turn adding and mixing ingredients.
- Explain that the healthy food they make will be served at lunch time.

Procedure

- Read the first steps in the directions and ask the children what is the first thing that needs to be done.
- If you have made a picture chart, point to the pictures to illustrate each step.
- After reading each, check that the children understand by asking some questions, such as “What utensils do we need to get?” and “What ingredients do we need to measure?”

Closure

- Ask the children to repeat the rules from the lead busters posters.
- Then ask the children which rules they used in preparing the food and before eating. *[Answer: Washing hands.]*
- Ask them which rule they will use when they eat the food. *(Answer: Eating healthy foods.)*

Home-School Connection

- Enclose the recipe in a newsletter or flyer to parents so that they can make it at home. Include information about this activity and its goals, as well as basic tips on good nutrition and on lead poisoning prevention.



Quahog or Clam Chowder Recipe*

1/4 lb. salt pork
2 medium onions
5 or 6 potatoes
1 pint ground-up quahogs (or clams)
1 pint milk (approx.)
Salt and pepper to taste
(Flour)

1. Dice salt port and onions.
2. Fry until golden brown.
3. Dice potatoes.
4. Add potatoes, salt, pepper, and a little quahog (or clam) juice to onions.
5. Boil until potatoes are almost done.
6. Add ground quahogs (or clams) and milk.
7. Heat.
8. Thicken with flour and water (optional).

Note: To reduces fat content, low fat or skim milk can be used instead of whole milk. This recipe includes salt pork, in the Native American tradition. In order to lower the fat content, that ingredient can be reduced with a small amount of oil.

*adaptation of recipe from Cynthia Akins in *Wampanoag Cookery* (American Science & Engineering 1974).



Activity 16. Boston Baked Beans: Low-Fat Foods that Provide Iron, Calcium, Vitamin C and Zinc

Objective

- To introduce a traditional, healthy food that will help keep lead from staying in children's bodies and making them sick.

Key Concepts

- Eating foods that are rich in calcium, iron, vitamin C and zinc, and low in fat help protect against lead poisoning by helping to keep lead from staying in children's bodies.
- Healthy foods can be fun to make and delicious to eat.
- Boston baked beans contain dried beans and molasses.
- Dried beans and molasses are rich in calcium, iron, vitamin C and zinc, and low in fat

Materials

- Measuring cups
- Teaspoon and tablespoon
- Saucepan
- Knife
- 2-quart bean pot
- Ingredients: dried navy beans; water; salt pork; molasses; salt; dry mustard; maple sugar; baking soda; onion.

Preparation

- Read the recipe for Boston baked beans to familiarize yourself with the steps for preparation.
- Optional: Draw a picture chart of the ingredients, preparation steps, cooking and serving.
- Optional: Display a poster of the food pyramid, for identifying ingredients.
- Assemble all the ingredients and place them on a tray in the order that you will use them.
- Assemble all the cooking utensils and place them on another tray.
- Have two children wash and dry the table.
- Have children wash their hands in preparation for the cooking activity.
- Remind them about the hand washing rule (wash your hands with soap and water before you eat or sleep and after you play outdoors) and have them sing, "Get the Lead Out" or "Wash Your Hands."



Introduction

- Ask the children if they remember the four lead busters messages:
 1. Wash your hands with soap and water before you eat or sleep and after you outdoor play.
 2. Leave your shoes near the outside door, and wear slippers or socks when you are inside your home, or wipe your feet well on a mat before entering.
 3. Eat healthy foods that keep lead from staying in your body.
 4. Stay away from paint chips and dust.
- Tell the children that they are going to make baked beans, which has lots of calcium, iron, vitamin C and zinc, and not a lot of fat. Eating foods that have lots of calcium, iron, vitamin C and zinc, and not a lot of fat help keep the lead from staying in their bodies.
- If a food pyramid poster is available, show children each ingredient and have them find where it is on the food pyramid. Explain that everyone will have a turn adding and mixing ingredients.
- Explain that the healthy food they make will be served at lunch time.

Procedure

- Read the first steps in the directions and ask the children what is the first thing that needs to be done.
- If you have done a picture chart, point to the pictures to illustrate each step.
- After reading each, check that the children understand by asking some questions, such as “What utensils do we need to get?” and “What ingredients do we need to measure?”

Closure

- Ask the children to repeat the rules from the lead busters posters.
- Then ask the children which rules they used in preparing the food and before eating. *[Answer: Washing hands.]*
- Ask them which rule they will use when they eat the food. *(Answer: Eating healthy foods.)*



Home-School Connection

- Enclose the recipe in a newsletter or flyer to parents so that they can make it at home. Include information about this activity and its goals, as well as basic tips on good nutrition and on lead poisoning prevention.

Boston Baked Beans Recipe*

1 lb. dried navy beans
Water for cooking
1/2 pound salt pork, cut into pieces
1/2 cup molasses
1 teaspoon salt
1 teaspoon dry mustard
4 tablespoons maple sugar
1/2 teaspoon baking soda
1 onion, peeled and sliced

1. Place the beans in a large saucepan; add enough water to come about 2" above the surface of the beans.
2. Cut salt pork into pieces.
3. Add the salt pork, and simmer the beans very slowly for about 2 hours or until just tender. Add more water as needed from time to time.
4. Peel and slice onions.
5. Drain the beans, reserving 1/2 cup of the cooking liquid.
6. In a measuring cup, combine molasses, salt, dry mustard, and maple sugar. Add enough of the bean cooking liquid to measure 1 cup. Mix in baking soda.
7. Stir mixture into the beans along with the sliced onions.
8. Transfer bean mixture into a 2-quart bean pot and bake for 1 1/2 to 2 hours in a moderately slow oven, 325 ° F. There should be just enough liquid in the beans to bubble up. Serve at once.

Note: This recipe contains salt pork, in the Native American tradition. In order to lower the fat content, that ingredient can be reduced or replaced with a small amount of oil.

*adaptation of recipe from *The Art of American Indian Cooking*, Yeffe Kimball and Jean Anderson (The Lyons Press 1988).



Resources

General Information About Lead Poisoning

National Lead Information Center

<http://www.epa.gov/opptintr/lead/index.html>

General information packet, through toll-free hotline 24 hours a day, 7 days a week
(English or Spanish):

1-800-LEAD-FYI. (1-800-532-3394)

Detailed information or questions answered by a specialist Monday through Friday, 8:30
am to 5:00 Eastern Time:

1-800-424-LEAD (1-800-424-5232) or
202-833-1071

Alliance To End Childhood Lead Poisoning

277 Massachusetts Avenue, NE

Suite 200

Washington, DC 20002

(Don Ryan, Director)

202-543-1147

Advocacy and educational publications.



Getting The Lead Out: The Complete Resource on How To Prevent and Cope With Lead Poisoning (Plenum Publishing Corp., New York, 1997) by

Irene Kessel and John O'Connor

Reader-friendly discussion of the nature and causes of lead poisoning and concrete steps you can take to control each specific environmental source of lead, as well as advice and resources to help you deal with lead poisoning from a variety of perspectives, including medical, nutritional, legal, psychosocial, educational and political.

1-800-221-9369



Federal Agencies

US Environmental Protection Agency (EPA)

401 M Street. SW
Washington, DC 20460

<http://www.epa.gov/opptintr/lead/index.html>

EPA's Office of Pollution Prevention and Toxics site, providing a variety of lead-related information, including publications related to provisions of Title X (1992 Lead-Based Paint Hazard Reduction Act). It includes proposed and final rules, fact sheets, etc., on the notification and disclosure regulations, certification and training programs, lead hazard guidance and standards, and pre-renovation education. Issue papers and guidance on identifying lead hazards are also included.

EPA Regional Offices

Jim Bryson

Region I (Boston, MA Office)

Phone: (617) 918-1524

Fax: (617) 565-4940

Activities: This is the EPA Regional contact for Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.*

Region II (Edison, NJ Office)

Phone: (908) 321-6671

Fax: (908) 321-6757

Activities: This is the EPA Regional contact for New York, New Jersey, Puerto Rico, and the Virgin Islands.*

Region III (Philadelphia, PA office)

Phone: (215) 566-2084

Fax: (215) 566-2134

Activities: This is the EPA Regional contact for Delaware, Maryland, Pennsylvania, Virginia, West Virginia, and the District of Columbia.*



Region IV (Atlanta, GA office)

Phone: (404) 562-8998

Fax: (404) 562-8972

Activities: This is the EPA Regional contact for Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.*

Region V (Chicago, IL office)

Phone: (312) 886-7836

Fax: (312) 353-4342

Activities: This is the EPA Regional contact for Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.*

Region VI (Dallas, TX office)

Phone: (214) 665-7577

Fax: (214) 665-2164

Activities: This is the EPA Regional contact for Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.*

Region VII (Kansas City, KS office)

Contact: Mazzie Tallie, Lead Team Leader

Phone: (913) 551-7518

Fax: (913) 551-7065

E-mail: mtalley@epa.gov

Activities: This is the EPA Regional contact for Iowa, Kansas, Missouri, and Nebraska.*

Region VIII (Denver, CO office)

Phone: (303) 312-6021

Fax: (303) 312-6044

Activities: This is the EPA Regional contact for Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming.*

Region IX (San Francisco, CA office)

Phone: (415) 744-1128

Fax: (415) 744-1117

Activities: This is the EPA Regional contact for Arizona, California, Hawaii, Nevada, American Samoa, Guam, and Trust Territories of the Pacific.*



Region X (Seattle, WA office)

Phone: (617) 565-3420

Fax: (617) 565-4940

Activities: This is the EPA Regional contact for Alaska, Idaho, Oregon, and Washington.

* EPA Regional Offices implement federal environmental programs, and cooperate with federal, state, interstate, and local agencies, as well as with industry, academic institutions, and other private groups to ensure that needs are addressed and that federal environmental laws are upheld.



Centers for Disease Control and Prevention

Lead Poisoning Prevention Branch
4770 Buford Highway, NE
Building 101, Mail Stop 742
Atlanta, GA 30341
1-888-232-6789
404-639-3311

<http://www.cdc.gov/nceh/programs/lead/lead.htm>

Information and publications about lead poisoning pathways and sources, tips for prevention, information on the Blood Lead Laboratory Reference System and grant opportunities.

<http://www.cdc.gov/>

Search engine for CDC's home page

<http://www.cdc.gov/epo/mmwr/mmwr.html>

Complete copies of CDC's Morbidity and Mortality Weekly Reports (MMWR).

<http://atsdr1.atsdr.cdc.gov:8080/ToxProfiles/PHS/Lead.1988.html>

General information about lead poisoning from the Agency for Toxic Substances and Disease Registry (ATSDR) Public Health Statement, June 1990.



Lead Hazard Control

Inspectors/Risk Assessors/Abatement Contractors

HUD Lead Listing

1-888-LEAD-LIST (1-888-532-3547)

<http://www.leadlisting.org>

List of inspectors, risk assessors and abatement contractors nationwide by geographic area.

The National Lead Abatement Council

1-800-590-NLAC

List of trained XRF operators.

HUD User

P.O. Box 6091

Rockville, MD 20850

1-800-245-2691

HUD publications, including *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*, the basic source book for lead paint abatement and interim control method, with detailed description of methods and standards used for HUD properties which serve as model for hazard control work in private homes.

National Center for Lead-Safe Housing (NCLSH)

The American City Building, Suite 205

10227 Wincopin Circle

Columbia, MD 21044

Phone: (410) 992-0712

<http://www.enterprisefoundation.org/howwork/housing/leadsafe.htm>

Technical assistance for lead hazard control in housing.



Home Maintenance/Renovation

Maintaining A Lead Safe Home: A Do-It-Yourself Manual For Homeowners, Property Managers & Contractors

Dennis Livingston (Community Resources, 1997)

28 East Ostend Street

Baltimore, MD 21230

1-800-848-0418

410-727-7837

A user-friendly, well illustrated, clear and concise guide to lead safe home repair and maintenance.

Reducing Lead Hazards When Remodeling Your Home

Published by the EPA and available through your state lead poisoning prevention program or your regional office of EPA.

U.S. Environmental Protection Agency (EPA)

Toxic Substances Control Hotline

1-800-424-9346

202-554-1404

Information about federal regulations regarding hazardous waste disposal.

The Healthy Home Handbook

John Warde (Time Books, 1997)

1-800-733-3300

How to control a number of safety hazards in the home, including indoor pollution.

Is This Your Child's World?

Doris J. Rapp, MD (Bantam, 1997)

1-800-323-9872

Causes and remedies for a number of conditions in schools and homes associated with hyperactivity, asthma, behavior and learning problems, etc.



Consumer Products

Consumer Product Safety Commission (CPSC)

Washington, DC 20207

1- 800-638-2772 (1-800-638-CPSC)

<http://www.cpsc.gov/>

Prerecorded information 24 hours a day, 7 days a week and staffed from 8:30-5:00 Eastern Time.

Lead and Cadmium in Children's Vinyl Products (Exposé)

Joseph Di Ganghi, Ph.D. (Greenpeace, 1997)

1-800-326-0959

<http://www.greenpeaceusa.org>

Ceramics

What You Should Know About Lead in China Dishes

Environmental Defense Fund (EDF)

1875 Connecticut Ave., NW, Suite 1016

Washington, DC 20009

1-800- 684-3322

202-387-3525

<http://www.edf.org/pubs/Brochures/LeadinChina>

Evaluation of more than 8,000 china patterns for lead content.

Food/Cosmetics

Food and Drug Administration (FDA)

US Department of Health and Human Services

<http://www.fda.gov>



Art Materials

Arts, Crafts and Theater Safety (ACTS)

212-777-0062

<http://www.caseweb.com/ACTS/>

Educational materials and information on lead exposure specific to the arts, such as stained-glass making and artist paint.



Curriculum Materials for Early Childhood

Keep the Lead Out and Leadville

County of San Diego
Department of Environmental Health
PO Box 85261
San Diego, CA 92186-5261
619-338-2222

Child Care Lead Poisoning Prevention

California Department of Health Services
Childhood Lead Poisoning Prevention Program
5801 Christie Avenue
Suite 600
Emeryville, CA 94608

Early Childhood Lead Poisoning Prevention - Prevention Lead Curriculum and

Reducing Lead Hazards for Children in the Home

Wyandotte County Health Department
619 Ann Avenue
Kansas City, KS 66101-3099
913-321-4803

Lessons in Lead Curriculum

Minnesota Institute of Public Health
2829 Verndale Avenue
Anoka, MN 55303
612-427-5310



Lead Poisoning Prevention Curriculum for Preschool Children and Their Families

The Development Disabilities Prevention Program/People, Inc.
New York State Take Lead Out of Children Coalition
1219 North Forest Road
PO Box 9033
Williamsville, NY 14231-9033
716-634-8132

Drinking Water

EPA Safe Drinking Water Hotline

Office of Water Resource Center
USEPA
410 M Street, SW
Washington, DC 20460
1-800-426-4791

Free publications, a list of certified laboratories for water testing and a list of water coolers containing lead.

American Water Works Association (AWWA)

<http://www.awwa.org>
Phone: (202) 628-8303

Information on minimizing public exposure to lead in drinking water.

Bottled Water

International Bottled Water Association

113 North Henry Street
Alexandria, VA 22314-2973
800-water11
703-683-5213

<http://www.bottledwater.org>

Standard setting and testing for lead content of bottled water.

NSF International

3475 Plymouth Road
PO Box 13140
Ann Arbor, MI 48113-0140
1-800-NSF-MARK

<http://www.nsf.org>

List of drinking water filtering systems and faucets which have been tested safe for lead.





Nutrition

The Food Guide Pyramid Booklet

Center for Nutrition Policy and Promotion
1120 20th Street NW
Suite 200, North Lobby
Washington, DC 20036
(202) 606-8000

<http://www.nalusda.gov/fnic/Fpyr/pyramid.html>

KidsHealth

<http://kidshealth.org/parent/nutrition/pyramid.html>

On-line explanation of food pyramid, linking to other health related resources.

The 5 A Day for Better Health Program

National Cancer Institute
US Dept. of Health and Human Services
1-800-CANCER (1-800-422-6237)

<http://www.dpcp.nci.nih.gov/5aday/>

Food Matters: a quarterly newsletter for Operation Frontline graduates

Share Our Strength
1511 K St., N.W., Suite 940
Washington, D.C. 20005
1-800-969-4767

Creative Food Experiences for Children

Mary T. Goodwin, Gerry Pollen
(Center for Science in the Public Interest, 1980)



Growing Colors

Bruce McMillan
(Lothrop Lee & Shepard, 1988)

Growing Vegetable Soup

Lois Ehlert
(Harcourt Brace, 1987)



Occupational Safety

National Institute for Occupational Health and Safety 1-800-35-NIOSH

Information on occupational exposure to lead and on respirators and protective clothing.

Soil

For more information on testing soil for lead and precautions to take to protect your family from lead in soil, contact your local county extension agent, through local state university, phone book, or

<http://www.reeusda.gov/statepartners/usa.htm>

Special Needs Education

Kidsource

<http://www.kidsource.com/kidsource/content3/ada.idea.html>

Review of federal laws on special education (ADA, IDEA, and Section 504).

Student Access: A Resource Guide for Educators, Section 504 of the Rehabilitation Act of 1973.

CASE (Council of Administrators of Special Education, Inc.)

Dr. Jo Thomason

615 16th Street, NW

Albuquerque, NM 87104

505-243-7622

**Council for Exceptional Children**

Division for Early Childhood

Barbara Smith

1444 Wazee St., Ste.320

Denver CO 80202

303-620-4579

<http://www.cec.sped.org/>**National Center for Learning Disabilities**

381 Park Ave. S., Suite. 1401

New York, NY 10016

212-545-7510

<http://www.nclld.org>**Learning Disabilities Association of America**

4156 Library Road

Pittsburgh, PA 15234

412-341-1515

<http://www.ldanatl.org>**CHADD (Children and Adults with Attention Deficit Disorder)**

499 Northwest 70th Avenue, Suite 109

Plantation, FL 33317

954-587-3700

<http://www.chadd.org>**Attention Deficit Information Network (AD-IN)**

475 Hillside Avenue

Needham, MA 02194

781-455-9895

781-4445466

<http://www.addinfonetwork.com>



Testing/Laboratory Analysis

NLIC (National Lead Information Clearinghouse)

1-800-424-LEAD

State-by-state list of laboratories approved by EPA's National Lead Laboratory Accreditation Program, (NLLAP) and recommended for analyzing paint chips, dust wipes and/or soil. Also information on specific XRF instruments.



Tribal Materials

My Lead Safety Book

Cheyenne River Sioux Tribe
Sarah Eagle Horse, Coordinator
CRST EPD Lead-based Paint Program
PO Box 590 Eagle Butte, SD 57625
605-964-6556

Children and the Hazards of Lead Based Paint in Tribal Communities

Inter Tribal Council of Arizona, Inc.
4205 N. 7th Avenue, Suite 200
Phoenix, AZ 85013
602-248-0071



Glossary

abate/abated/abatement - to take measures to permanently eliminate lead-based paint. These measures include: replacement of elements bearing lead-based paint (such as windows and trim), removal of the paint itself from the wall or other element (by sanding, scraping, or using chemical removers), enclosure of lead-based painted surfaces with wallboard, paneling, etc., and encapsulation of painted surfaces, usually with a special liquid coating which prevents lead from escaping.

absorbed/absorption - to retain in the body the lead that a child is exposed to, rather than eliminating it as waste. More of the lead a child is exposed to is retained (absorbed) if the lead enters the body through the lungs, rather than the mouth, if the particles are smaller, if the child is lacking in certain nutritional elements, and if the child's stomach is empty.

anemia (iron deficiency anemia)- a reduction in the number or volume of red blood corpuscles or total hemoglobin in the blood stream, which interferes with the ability of the blood to transport oxygen to the body's cells. Iron deficiency anemia is anemia caused by an inadequate amount of iron being absorbed by the body. A lead poisoned child often, but not always, has iron deficiency anemia also.

blood lead level - the amount of lead contained in a child's blood, which is an indicator of a child's exposure to lead in his or her environment. The blood lead level is measured when a child is screened for lead poisoning and is expressed in the number of micrograms of lead for one decilitre of blood.

calcium - a mineral contained in many foods and important to a child's general health, and especially in protecting against lead poisoning. Note: Calcium supplements can be taken to make up for a lack of dietary calcium. However, care should be taken; some calcium supplements contain lead themselves, and could do more harm than good. Three that have been tested and recommended by the Natural Resource Defense Fund are: Children's Mylanta (liquid or chewable), Posture-D High Potency Calcium with Vitamin D, and Tums 500 Calcium Supplement.

capillary blood test - a test where a small amount of blood is taken from a capillary in a child's finger (or an infant's heel). Some practices prefer this as a less intrusive or traumatic way of sampling blood than taking blood from a vein in the arm .



chelation/chelating agent - a medical procedure using/ a drug which attaches to lead in the blood so that it is eliminated as waste. The most common of these is an oral drug called Chemet (succimer, or DMSA). Others are BAL (Dimercaprol), EDTA (Edetate Disodium Calcium) and Cuprimine (D-Penicillamine). The procedure of administering this drug is called chelation.

early intervention program - a program which evaluates developmental delays and other special needs of young children, birth to age 3, and offers services to overcome such difficulties which might interfere with the child's education.

elevated blood lead level - an amount of lead in the blood that raises concerns about possible adverse health effects. Over 10 micrograms of lead for each decilitre of blood is considered to be of concern.

encapsulant - a covering that adheres to a lead-based painted surface and acts as a barrier between lead-based paint and the environment. The most common type is a liquid which looks like and is applied in a manner similar to paint.

enclosure - the use of rigid, durable construction materials that are mechanically fastened to a lead-based painted surface and act as a barrier between the lead-based paint and the environment.

finger stick - a method of taking a small amount of blood from the capillaries in a child's finger to test it for lead content. (Same as capillary blood test)

Head Start - a federally funded program to assist pre-schoolers (ages 3 through 5) in overcoming developmental delays, learning disabilities and other special needs that would interfere with successful participation in elementary school education.

heat gun - a device which can separate lead paint from the substrate by heating it. Heat guns should not be used for lead paint removal at over 1,100 degrees F, according to HUD, because of the toxic fumes that can be created.

HEPA (high efficiency particulate air) - a filter capable of removing 99.97% or more of the particles that are 0.3 microns or larger from the air. HEPA filters are used on respirators for lead-related workers and for vacuum cleaners used for cleaning lead dust and other fine contaminants.



high risk - an increased likelihood that a child is lead poisoned because of factors including:

- Lives or frequently visits housing of a day care built before 1960.
- Lives or frequently visits housing of a day care built before 1978 that has recently been renovated or remodeled or that has flaking, peeling paint.
- Has a sibling or playmate with lead poisoning.
- Has a household member who comes into contact with lead in their work

If a child is at high risk of lead poisoning, it is especially important that he or she be screened at least annually, and not only at ages one and two.

home test kit (chemical spot test) - a commercially available product used for testing paint for the presence of lead. These use one of two chemicals, sodium sulfide or sodium rhodizinate (rhodizonic acid) to indicate the probable presence of lead in the tested material.

ingest - to take into the body by way of the mouth. Ingestion is the most common way for lead to enter a child's body.

lead - a soft grayish metal used in a variety of products (including car batteries, pigments, paints, and dyes) that is highly toxic to humans, especially young children.

lead poisoning - a disease caused by the exposure to and absorption of lead involving damage to virtually all organs of the body, most notably the brain. The level of lead in the blood that defines lead poisoning is set differently in different places, but the most generally accepted standard is that a single measurement of 20 or more micrograms of lead per deciliter of blood (or repeated measurements of over 15) means a child is lead poisoned.

lead-based paint - paint (or varnish or shellac) containing 0.5% of lead by weight or 1.0 milligrams of lead for each square centimeter of painted surface.

LeadCare® - a small, portable piece of equipment, manufactured by ESA, Inc., which measures the amount of lead in a small sample of blood and shows the results in about 10 minutes.



Little Moccasins® Lead Safety Program - the interactive CD ROM developed by Houlton Band of Maliseet Indians which accompanies the First Steps manuals. Additional free copies are available from Mr. Phil Quint, Lead Director, 1-800-545-8524.

micrograms per deciliter - the measure used to describe how concentrated the lead is in a sample of blood. 10 micrograms per deciliter, the threshold above which there is an increased probability of certain adverse health effects, is equivalent to about 1/20th of a drop of a contaminant in a bath tub full of water.

psychosocial - psychological and social, as distinguished from physical, medical. The psychosocial effects of lead poisoning include denial, anger, guilt, and stress.



respirator - an apparatus that fits over the nose and mouth to protect the person wearing it from breathing in hazardous materials. To protect a worker from lead dust, a respirator with a purple coded HEPA filter should be worn.

screening - a test which indicates that there is an increased likelihood that a child has an elevated blood lead level. A child is screened for lead poisoning by measuring the concentration of lead in his or her blood.

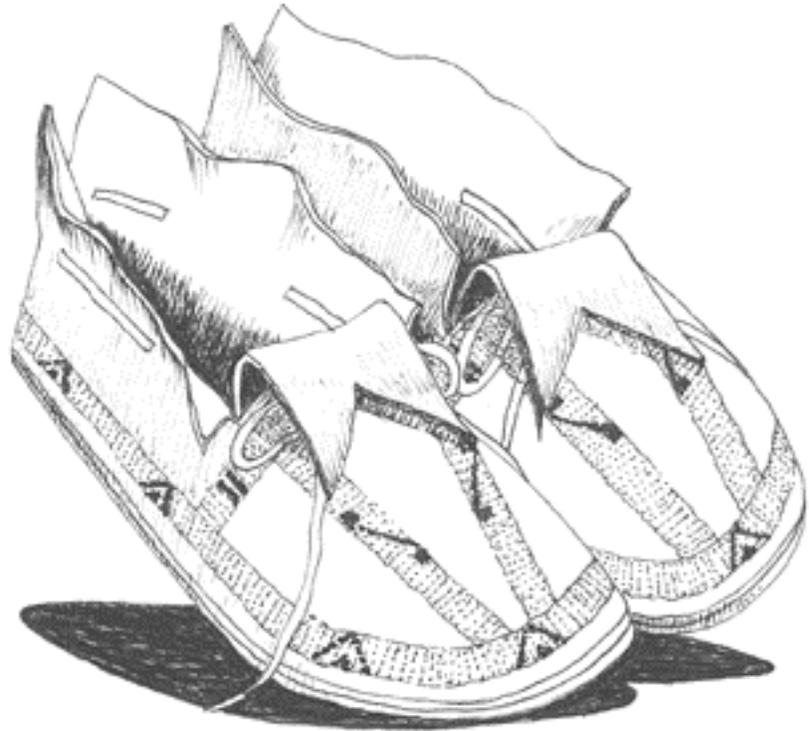
solder - a material used to join two pieces of metal together. Lead was commonly used to solder household plumbing until 1986, when it was prohibited for that use.

special education services - services that federal law requires public schools to provide to meet the needs of pupils with specific disabilities that could interfere with their education.

venous - from the vein. A venous blood test involves the drawing of a small amount of blood from a child's arm to test it for lead. This type of blood sampling technique is preferred by many practices who feel blood taken this way is less likely to be contaminated than a finger stick sample.

XRF (X-ray fluorescence) - a hand held apparatus that uses radiation to detect and measure the concentration of lead in paint, including in layers of paint that are covered by newer layers. For both effective results and safe handling, proper training and certification is required in order to operate an XRF machine.

¹ The University of Connecticut Cooperative Extension System does not take any responsibility for changes or additions made to original materials.



A. Wagg. 09

Little Moccasins Lead Poisoning Prevention Manual

Evaluation

Please take a couple of minutes to help up evaluate the effectiveness of this manual by checking the appropriate box to indicate what you have learned from it.

BEFORE TRAINING				AFTER TRAINING		
I knew a lot about	I knew something about	I knew nothing about	AREA OF KNOWLEDGE	I know a lot about	I know something about	I know nothing about
			The impact of lead poisoning on small children			
			The major sources of lead in the environment			
			The signs and symptoms of lead poisoning			
			The effects of lead on young children's learning, behavior and development			
			The importance of screening children under age 6 for lead poisoning			
			How to interpret the results of a blood lead test			
			The ways a child can be exposed to lead dust			
			The importance of hand washing and wet washing to prevent lead poisoning			
			The importance of nutrition to protect against lead poisoning			
			Behavior management techniques for challenging children			
			Detecting and controlling lead paint and dust hazards			
			Precautions to take when working with lead paint			

1. Please indicate whether you are a:

- family daycare provider
- school-age child care provider
- Child care or day care center director or staff member
- Head Start director or staff member
- Parent, family member, or guardian of a young child
- Other _____

2. What is the location of your child care facility (or your home, for a family)?

_____ (town or reservation)

_____ (State)

3. What is/are the ethnicity/race(s) of the children you care for? (check all that apply)

- Native American Indian
- Caucasian
- African-American
- Hispanic
- Asian
- Other _____

4. How many children do you care for in your child care facility (or in your family)?

_____ infants _____ pre-school
 _____ toddlers _____ school-age

5. Would you recommend this manual to:

A colleague? _____
 Others? (please specify who) _____

Please answer the following questions regarding how useful this manual is.

1. Will you read all the fact sheets in the section "Preventing Lead Poisoning in Children" of this manual?
 - Yes
 - No
 - Maybe
 - Much of it, but not all
2. Will you read all the information in the section "Rules and Regulations"?
 - Yes
 - No
 - Maybe
 - Much of it, but not all
3. Will you read all the activity plans in the section "Activities for Young Children"?
 - Yes
 - No
 - Maybe
 - Much of it, but not all

For child care providers:

4. Will you use the information on preventing lead poisoning in your work as a child care provider?
 - Yes
 - No
 - Maybe
5. Will you use the information about regulations and resources in your work as a child care provider?
 - Yes
 - No
 - Maybe
6. Will you use one or more of the activity plans in your work as a child care provider?
 - Yes
 - No
 - Maybe
7. Will you distribute one or more fact sheets about preventing lead poisoning to parents of guardians involved in your child care? _____ to others (please specify)? _____

8. Will you distribute the information about regulations
to parents or guardians involved in your child care? _____
to others (please specify)? _____
9. Will you distribute one or more activities (or songs or recipes)?
to parents involved in your child care? _____
to others (please specify)? _____

