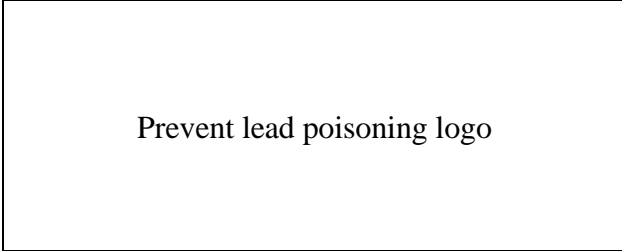


# **What You Should Know about Lead Poisoning**

## **A Resource Manual for Childcare Providers**



Prevent lead poisoning logo

# What You Should Know about Lead Poisoning

## A Resource Manual for Childcare Providers



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*Technical assistance provided by*

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# INTRODUCTION

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# Introduction for Childcare Providers

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## **Childcare providers can help prevent lead poisoning**

As daycare providers, caring for young children (particularly those under the age of six), you can be a critical link in helping to reduce lead poisoning. You are not only educators of young children but also sources of information for their parents and guardians. In both of these roles, you can serve the interests of children by becoming informed about the problems of lead poisoning and by sharing this information with the families of the children you care for.

Moreover, as childcare providers, you are required by law to provide safe environments free of hazards.

The materials that follow are designed to provide the information that childcare workers need. They include the following:

- Fact sheets about the symptoms of lead poisoning, what to do if lead poisoning is suspected, how to handle lead hazards in and around the home, foods and other dietary adjustments that may help to reduce lead's harmful effects, and management techniques for challenging children.
- Information about State of Connecticut regulations pertaining to lead, particularly as they relate to childcare providers.
- A curriculum designed to teach young children about lead-safe behaviors.
- Information sheets to be given to parents or guardians.
- Lists of resources (agencies) that can provide additional information.

## **Sponsoring Agencies**

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The Cooperative Extension System is part of the College of Agriculture and Natural Resources at the University of Connecticut and belongs to a nationwide network of extension systems at other land-grant universities and the U.S. Department of Agriculture. It brings research-based information to Connecticut citizens in their own communities through public educational

## *Introduction for Childcare Providers*

programs, radio and television programs, newsletters, publications, and correspondence courses.

The Connecticut Department of Public Health implements and coordinates lead poisoning prevention activities in the state. Its Connecticut Childhood Lead Poisoning Prevention Program develops policies and regulations and helps to educate the lay public and professional communities about this issue.

The U.S. Environmental Protection Agency–New England implements and coordinates environmental lead activities in the New England states. Some of its regulatory and nonregulatory responsibilities for lead are under the Residential Lead-Based Paint Hazard Reduction Act of 1992, the Toxic Substance and Control Act, the Resource Conservation and Recovery Act, and the EPA’s Urban Environmental Initiatives.

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# PART I

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## **Preventing Lead Poisoning in Children**

# What You Should Know about Lead Poisoning

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**Overview:  
the impact,  
sources,  
testing,  
results,  
response,  
and  
prevention  
of lead  
poisoning**

Lead poisoning is a serious but *preventable* health problem. Lead can cause permanent damage to children—especially unborn children, infants, toddlers, and children under six years old. Children are generally at greater risk than adults because they are more sensitive to lead’s damaging effects and because they put things in their mouths. If these things contain lead or have lead dust on them, the lead will poison the children and may stay in their bodies. *No* amount of lead in the body is safe.

## **Lead’s Lasting Impact**

Lead is a poison that affects virtually every system of the body. It is particularly harmful to the developing brain and nervous system of fetuses and young children.

The effects of lead depend upon the level of lead in the blood. For example, in children, very high levels can cause deafness, blindness, coma, convulsions, and even death. Moderate levels, too, can harm the brain and nervous system, kidneys, and liver. Even very low levels, which do not cause any obvious symptoms, are associated with decreased intelligence, behavioral problems, decreased growth, impaired hearing, and decreased ability to maintain a steady posture.

Moreover, these problems remain long after childhood. In comparison with children who have not been exposed to lead, children who **have** been exposed were much more likely to have reading difficulties, poor vocabulary, attention problems, poor fine-motor coordination, greater school absenteeism, and lower class ranking, and to drop out of high school.

## **Sources of Lead**

People everywhere are exposed to lead. Lead dust and lead-based paint are the major sources of lead poisoning in children. If lead paint weathers, flakes, or becomes chalky, or if it is heated or sanded during home repairs or renovations, it may produce dangerous dust (which may collect on children’s toys or hands and be eaten) or dangerous fumes (which children may inhale). Children may eat lead paint chips because they taste sweet, and lead paint may sometimes be found on old or imported toys. Adults who work in

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## *Preventing Lead Poisoning in Children*

lead-related industries or crafts may accidentally bring home lead dust on their clothing, and this dust may poison the air that children breathe. Lead can get into drinking water from lead pipes and solder. Lead can also be found in lead-glazed dinnerware, lead crystal, contaminated soil and the food grown in it, cosmetics, some folk remedies, imported canned food, printing inks, batteries, and bullets.

### **Testing**

Lead poisoning is not always obvious. The only way to detect it is through a simple blood test. Children between one and two years old are very susceptible to lead poisoning and should be screened, especially if they live in high-risk areas or housing. Children between three and six years old who live in these areas and have not yet been tested should also be screened. Testing may be done through the local doctor, health clinic, or health department. If any one person in the household is diagnosed with lead poisoning, all other members of the household should also be tested.

### **Results**

In Connecticut, a child is considered to have an **elevated blood lead level** if tests show between 10 and 20 micrograms of lead per deciliter of blood. A child is considered **lead poisoned** if the blood lead level is 20 micrograms per deciliter of blood or higher.

### **Response**

No amount of lead is safe. If a child has elevated levels, parents and guardians should check the child's environment for sources of lead. If a child is lead poisoned, the law requires a home inspection; in addition, long-term medical treatment may be required. In both cases, a balanced diet, low in fat and with enough iron, calcium, and zinc, may help to reduce the damaging effects of lead.

### **Prevention**

To prevent this harmful disease, homes, daycare facilities, and other places where children play or spend a lot of time should be tested. Dust, loose paint chips, soil, dishes, and water can all be tested for lead. State and local health departments can provide information about how to take samples and what to do if dangerous levels are found. They can also provide additional information about lead poisoning and may provide lists of licensed lead consultants. You may call \_\_\_\_\_ for further information.

# Symptoms of Lead Poisoning

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**Often, there are no obvious signs or symptoms of lead poisoning**

Children with lead poisoning may not look or act sick. Even if the children do show some signs of lead poisoning, these symptoms can often be mistaken for other illnesses, such as the flu. Early symptoms may include tiredness or restlessness, headache, stomachache, constipation, irritability, and poor appetite. As more lead accumulates, children may become clumsy and weak, and they may lose skills that they have already learned. More severe symptoms may include vomiting, loss of sight or hearing, and lapses in consciousness (that is, going in and out of consciousness).

## **Symptoms of Lead Poisoning at Various Stages of Development**

Children may show different symptoms at different ages, as described below.

**Many of these symptoms, however, may also indicate other health conditions or learning and behavior problems. In addition, children who are *not* lead poisoned may also show some of these symptoms from time to time, although to a much milder degree.**

For example, all babies may be fussy occasionally, but a baby with lead poisoning may be fussy most of the time. Therefore, if children seem to have these symptoms to an unusual extent, there may be cause for concern. The parents, guardians, or other adults responsible for the children's well-being should always consult the doctor immediately if they suspect lead poisoning and ask for a blood test.

Some of these symptoms may make the parents, guardians, or caregivers feel annoyed or resentful and therefore less affectionate toward the child. They may feel like talking less and spending less time with that child. Understanding that these problems are caused by lead poisoning may help the adults to handle the children more effectively.

*Material prepared by Maureen T. Mulroy, University of Connecticut Cooperative Extension System*

## **Behaviors Associated with Lead Poisoning**

### **Infants and Toddlers**

- Cry, whine, or fuss excessively
  - Have colic
  - Have feeding problems
    - Don't suck well
    - Cry while eating
    - Don't have regular eating patterns
    - Seem fussy about eating
  - Have sleep problems
    - Sleep too much or too little
    - Are restless while sleeping
    - Have difficulty falling asleep
    - Waken easily
  - Seem very sensitive to, and unhappy about, touch, tastes, noises, smells, or sounds
  - Seem irritable, cranky, uncooperative, difficult to care for
  - Are difficult or impossible to soothe or comfort
  - Do not seem to like being cuddled
  - Seem to be late in babbling and saying first words
  - Don't smile often
- 

### **Preschoolers**

- Seem excessively active
  - Are very uncooperative
  - Refuse to follow requests or directions
  - Have difficulty in toilet training
  - Have difficulty following directions
  - Act impulsively
  - Are fidgety, squirmy
  - Have difficulty remaining seated
  - Are easily distracted
  - Have difficulty paying attention while playing or performing simple tasks
  - Talk excessively
  - Interrupt others frequently
  - Often shift from one uncompleted activity to another
  - Often do not seem to listen to what is being said to them
- 

### **Elementary School Children**

- Fail to finish class assignments
- Disrupt their classes
- Perform poorly in school
- Are unable to tolerate frustration
- Have problems learning
- Are easily distracted
- Need a lot of supervision
- Have problems with other children
- Frequently call out in class
- Have difficulty staying seated
- Have difficulty concentrating

# What to Do If You Suspect Lead Poisoning

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**All children under six years old who live in high-risk areas or housing should be screened at least once for lead poisoning**

If parents or guardians suspect lead poisoning, they should *not* wait for symptoms to appear before having their children tested.

## Special Causes for Concern

Many houses and apartment buildings built before 1978 have paint that contains lead. (In 1978, the U.S. government banned lead-based paint in housing.) As a result, the possibility of lead poisoning may be greater for children who live in or frequently visit deteriorating housing that was built before 1978, because children may eat paint chips and may eat or breathe in paint dust. Children who live in housing that was built before 1978 and that has recently been or is now being remodeled or renovated are especially at risk, because the home repairs can create lead dust and paint chips that children may swallow.

Other children who are at greater risk are the brothers, sisters, housemates, and playmates of children known to have lead poisoning. In addition, children who live with household members who work in lead-related jobs or who have lead-related hobbies (for example, stained glass or pottery makers, battery recycling plant workers) may also be at risk.

## Testing

Blood tests can determine a child's lead level. There are two ways to collect blood for testing. The first, a fingerstick, screens for the presence of lead. The child's finger is pricked to obtain a blood sample, which is sent to a laboratory for analysis. If the lead level is high, the results must be checked with a second test, called a *venipuncture*, which involves taking blood from a vein. This second sample is also sent to a laboratory for analysis.

## Screening Agencies

Family doctors and pediatricians can provide lead poisoning screening. Other agencies that may offer these services include local health departments, health clinics, Head Start programs, community health fairs, hospital pediatric outpatient departments, visiting nurse associations, and well-child clinics.

*Material prepared by Maureen T. Mulroy, University of Connecticut Cooperative Extension System*

## **Questions to Ask the Doctor**

1. How will you test my child for lead?
2. What are the differences between lead tests?
3. What are the symptoms of lead poisoning?
4. What are the effects of lead poisoning?
5. What is my child's blood lead level?
6. What do the test results mean?
7. If treatment is needed, what treatment is recommended?
8. What are the side effects of the treatment?
9. When should my child be tested again?
10. What foods should my child be eating at this time?
11. When can other family members be tested?

## **If a Child Has Been Exposed to Lead**

If blood tests show that a child has been exposed to lead, parents or guardians should make sure that the following steps occur:

1. The family should receive education about childhood lead poisoning and how to prevent it.
2. The child should receive appropriate follow-up blood lead testing and/or medical evaluation.
3. If the child's blood lead level is high, medical treatment should be discussed with the doctor.
4. If the child is lead poisoned, a home inspection will be made by local public health agencies to help identify the sources of lead.
5. If the child is lead poisoned and the source of lead is in the home, the child should **not** be allowed to return to that home until the source of lead has been found and abated. (In some cases, relocation assistance may be available.) If the source of lead is elsewhere, the child should not return to that environment.

## **Help with Behavioral Concerns**

Children who have been exposed to high levels of lead during their early years often show various challenging behaviors at home and in school. Parents may need outside advice and assistance for help in raising these children. Sources of such assistance may include the family doctor or pediatrician, public health clinic, child guidance clinic, infant stimulation programs, parent and family support groups, public school special education service units or resource centers, well-baby clinics, parent education classes, mental health centers, and early intervention programs.

# Handling Lead Hazards from the Environment

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## Sources of lead:

- **air**
- **paint**
- **industrial exhaust**
- **lead solder**
- **lead smelting**
- **batteries**
- **water**
- **lead pipes**
- **lead-lined water coolers**
- **soil**

Lead is a toxic (poisonous) element. Although eliminating all exposure to lead in the environment is impossible, knowing where lead comes from can help people to reduce the risk of exposure and therefore to prevent lead poisoning.

## Lead in the Air

Lead particles and fumes can get into the air if lead-based paint or varnish peels or flakes. Lead can also enter the air from industrial exhaust, especially near an industrial site. In any area where lead dust and chips may fall, wet mop and wipe surfaces daily with a solution of water and detergent. Throw away any cleaning rags.

Lead particles and fumes can get into the air if lead-based paint is removed by sanding, heating, or scraping. *Before you start to renovate*, have your paint tested for lead. If the paint contains lead, request information from your local health department concerning safe removal. In addition, if there are children under six or pregnant women in the household, consider delaying the renovation or hire a licensed lead removal professional to do the work. (Lists of such professionals can be obtained from your state or local health department.)

If a member of the household works with lead solder or in a lead industry (such as a battery plant, radiator repair shop, lead smelter, or construction), that person could carry lead particles home on his or her clothing, shoes, and hair. Adults should shower, wash their hair, and change their clothing and shoes before leaving work.

Burning lead-painted wood creates lead fumes, so do not burn it. Call your refuse collector to determine safe ways of disposing of lead-painted wood.

## Lead in the Water

In very old homes, lead can get into the water from lead pipes. In newer homes, lead can get into the water from pipes connecting to the street or from lead solder. Lead-lined water coolers and fixtures can also put lead in the water.

*Material prepared by Kay Renius, University of Connecticut School of Allied Health, and Mary-Margaret Gaudio, University of Connecticut Cooperative Extension System*

## *Preventing Lead Poisoning in Children*

Have your water tested for lead. (Lists of labs accredited to do lead testing can be obtained from your state or local health department.) If lead is present, run water until it runs cold before using it, especially if you have not used the water for a few hours. Use only *cold* water to drink or to make baby formula, prepare or cook food, or make coffee, tea, or other beverages.

### **Lead in the Soil**

Lead can get into the soil from lead fumes, dust in the air, and paint. Have the soil tested for lead. If the soil is contaminated, cover it with grass, bushes, mulch, or pavement to prevent children from playing there. Clean or remove your shoes before entering your home to avoid tracking lead inside. If you have pets that go outdoors, clean their feet before you allow them inside. Do *not* plant a vegetable garden in contaminated soil.

Lead can sometimes be found in sand. If you install a sandbox, be sure to purchase lead-free sand.

### **Lead from Hobbies or Work**

When people hold leaded items, lead can remain on the hands. Craftspeople, artists, and sports people often handle items such as bullets, fishing sinkers, lead powder, batteries, lead solder, curtain weights, jewelry, artists' paints, and other lead items. Immediately after handling any leaded items, always wash your hands thoroughly.

Imported comic books and other printed materials may contain lead. Keep young children from playing with or chewing on these items.

### **In General**

Always wash your hands thoroughly before handling food or touching children or anything they can touch.

# Handling Lead Hazards in the Home

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## Sources of lead:

- food
- tin cans
- pottery
- crystal
- pewter
- plastic bags
- toys
- flaking and peeling paint
- fishing sinkers
- artists' paints

*Material prepared by Karen Filchak and Mary-Margaret Gaudio, University of Connecticut Cooperative Extension System, and Kay Renius, University of Connecticut School of Allied Health Professions*

If you suspect lead hazards in your home, you can take some simple precautions to help reduce the risk to your family.

## Lead in Food

Food grown in contaminated soil or exposed to contaminated air can contain lead. If you live near a highway or lead industry, or if you want to plant a garden near an old house, have the soil tested before you plant.

Some imported canned goods have seams that are soldered with lead. Once these cans are open, the foods may become contaminated, especially if the food is acidic (such as tomatoes). As soon as you open a can, remove the food and store leftovers in glass, plastic, or stainless steel containers.

## Lead in Dishes and Plastic Bags

Some old dishes, imported or homemade pottery, lead crystal, and pewter may contain lead. Dishes passed down by grandparents or bought at tag sales may have been made before the government issued current safety standards. Pottery can be tested, and if it contains lead, do not use it for food. Crystal and pewter may be used occasionally for serving, but do not store food or beverages, especially those containing alcohol or acid, in them. Never use crystal baby bottles.

Plastic bags used to package bread, baked goods, and other foods are often printed with inks containing lead. If you reuse a plastic bag, be sure that the printing stays on the outside, not in direct contact with the food.

## Lead from Paint Dust or Chips

Lead paint tastes sweet, so young children—who love to put things in their mouths—may chew on lead-painted or lead-varnished doorways, stair railings, window frames and sills, radiators, cribs, furniture, toys, and other surfaces. Try to prevent children from putting nonfood items into their mouths. If possible, replace lead-painted items with safe ones. Place barriers (sofas, tables) in front of lead-painted areas if possible. If the paint is not flaking, chalking, peeling, or chipping, you may repaint these areas with unleaded paint.

## *Preventing Lead Poisoning in Children*

Clean suspect surfaces regularly with a solution of water and detergent. Thoroughly rinse sponges and mop heads, and throw away used cleaning rags.

Wash children's toys, stuffed animals, bottles, pacifiers, and other items frequently.

Lead dust may collect in wall-to-wall carpet. Remove it or clean it with a detergent. Vacuum with a vacuum cleaner equipped with a high-efficiency particulate air (HEPA) filter.

Many imported miniblinds also contain lead. In areas where children are present, these blinds should be replaced.

### **Lead in Folk Remedies and Cosmetics**

Many non-Western medicines and cosmetics contain substantial quantities of lead and other metals. In fact, lead compounds may be major ingredients in some traditional medicines, which are commonly made by traditional healers.

Lead poisoning from these sources has been found among Arabic, East Indian, Pakistani, Chinese, and Latin American cultures. Among the folk remedies and cosmetics that contain lead are:

- alarcon
- bali goli
- greta
- pay-oo-ah
- alkohl
- coral
- kohl
- rueda
- azarcon
- ghasard
- liga
- surma

Do not use these products, and keep children away from them.

### **In General**

Wash children's hands frequently, especially before eating.

Be sure that children eat nutritious meals that are low in fat and have appropriate amounts of iron, calcium, and zinc. Children with good diets absorb less lead. Also, be sure that children get enough to eat, because empty stomachs absorb lead more easily.

# Foods That May Help to Fight Lead's Harmful Effects

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**A varied, balanced diet—one that is low in fat and has enough iron, calcium, and zinc—may help to reduce the harmful effects of lead**

Lead harms a child's body in many ways. Lead may fool the body into thinking it is iron, calcium or zinc—which are minerals that children need to be healthy. Lead may take the place of these nutrients in the body, but it cannot do their jobs. Instead, it prevents the body from working properly.

Lead is most harmful at high doses, and when there is not enough iron, calcium, and zinc to compete with the lead. Many children have both low iron (iron deficiency anemia) *and* lead poisoning. Getting enough of these minerals may help to lower the amount of lead the body takes in. However, taking too much iron, calcium, and zinc will not prevent lead poisoning and could also be harmful.

Among people who are exposed to lead, the risk of lead poisoning is particularly high among infants, preschool children, pregnant and nursing women, and other people who do not have well-balanced diets or who do not get enough food to eat. Lead is absorbed more easily on an empty stomach.

Choosing a diet that is low in fat may also help keep more lead out of the body.

## **A Balanced Diet**

Giving children a balanced diet may help to lower the dangerous effects of lead. A balanced diet contains a *variety* of food from five food groups:

- breads, cereals, and grains 6–11 servings daily
- vegetables 3–5 servings daily
- fruit 2–4 servings daily
- milk and milk products 2–3 servings daily
- meat, chicken, fish, nuts, dried beans, and lentils 2–3 servings daily

Younger children need smaller servings than older children or adults, and more active people need the larger number of servings from each group.

*Material prepared by Linda Drake, University of Connecticut Cooperative Extension System*

## **Foods That Provide Calcium**

Milk and milk products are usually good sources of calcium. Give *whole* milk to children 1–2 years old, *lowfat* milk to children over 2 years old.

- **Milk:** 2–3 cups per day
- **Yogurt:** lowfat or nonfat (contains the same amount of calcium as milk)
- **Cheese** (for snacks and cooking): macaroni and cheese, pizza, tacos, vegetable topping
- **Other foods made with milk:** puddings, soups, custards, flans, pancakes

Some children, however, cannot digest or are allergic to milk and milk products. Other, nondairy sources of calcium are:

- **Dark green leafy vegetables:** kale, collard greens, broccoli
- **Tofu** (processed soybean curd)
- **Sardines or canned salmon** (with bones—could be a choking hazard for young children)

## **Foods That Provide Iron**

The following foods contain iron in a form that is easy for the body to use:

- **Lean red meat:** pork and beef
- **Chicken and turkey**
- **Clams, oysters, and mussels**
- **Sardines, tuna, and other fish**

The following foods contain iron that is more usable if it is eaten at the same meal as food high in vitamin C (for example, oranges, grapefruit, strawberries, cantaloupe, green peppers, cauliflower, broccoli, and potatoes):

- **Iron-fortified hot and cold cereals**
- **Dark green leafy vegetables:** broccoli, spinach
- **Dried beans:** pinto, red, kidney, navy, garbanzo
- **Split peas and lentils**
- **Eggs**
- **Dried fruit** (could be a choking hazard for children under 3): raisins, prunes, figs
- **Peanut butter** (could be a choking hazard for children under 3, and children are often allergic to it)
- **Wheat germ**

## **Foods That Provide Zinc**

- **Chicken or turkey**
- **Lean red meat:** pork and beef
- **Fish**
- **Milk and cheese**
- **Clams, oysters, mussels, and crab**
- **Dried beans and lentils**
- **Eggs**

# A Healthy Diet to Fight Lead's Harmful Effects

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**A lowfat diet may help to protect against lead poisoning**

Feeding children a balanced diet can help keep them healthy. A balanced diet that is low in fat can provide all the vitamins and minerals children need to fight lead's harmful effects.

People who eat a lot of fat seem to absorb lead more easily. Although some fat is needed for healthy skin, nerves, and energy, children over the age of two and adults may benefit by a diet relatively low in fat.

Note: Children under two years old need more fat than older children.

Infants are usually fed breast milk or formula until about the age of one year. Once they are weaned, they should be given *whole* milk until age two. After age two, they may be given lowfat milk.

## Hints for Reducing Fat in the Diet

- Limit foods from fast-food restaurants. Foods commonly served in these restaurants—such as deluxe hamburgers, fried chicken, hot dogs, fried fish, French fries, and ice cream—are usually very high in fat.
- Limit snack foods and desserts such as doughnuts, potato chips, corn chips, pies, cupcakes, pastries, and chocolate. When you do eat or serve these items, substitute lowfat versions (for example, use lowfat frozen yogurt instead of ice cream).
- Offer children vegetables, fruits, whole-grain breads or cereals, yogurt, and cheese as healthy snacks.
- Use less oil, butter, lard, and margarine in cooking and on foods.
- If you do eat or prepare high-fat foods, try to do so less often. When you do eat them, have smaller servings (one scoop of ice cream instead of two).
- Choose lowfat dairy products (milk, cheese, yogurt, etc.) for children over the age of two years.
- Introduce children over the age of two years to other lowfat foods, so they can learn to like the taste.
- Read package labels to find hidden fats, such as vegetable oils, partially hydrogenated vegetable oils, and butter. Limit foods that list these and other fats among the first two or three ingredients.
- Look for foods that contain less than 3 grams of fat per serving. These are lowfat foods.

*Material prepared by Linda Drake, University of Connecticut Cooperative Extension System*

## **A Day of Nutritious Foods**

Below is a sample menu of healthy foods for a three- or four-year-old child. Keep in mind that each child is different, and that a preschooler's appetite may change from one day to the next.

### **Breakfast**

½ cup iron-fortified  
unsweetened cereal  
½ cup milk (lowfat)  
½ cup orange juice

### **Midmorning Snack**

1 slice whole wheat toast  
½ tb. peanut butter  
1 tsp. jam (or jelly)  
½ cup apple juice

### **Lunch**

1 tuna salad sandwich  
on enriched or  
whole-grain bread  
½ cup clam chowder or lentil  
soup or bean soup  
2 small whole-grain  
crackers  
½ cup milk (lowfat)  
½ small carrot, cut into thin  
sticks  
1 apple, peeled and cut up

### **Midafternoon Snack**

½ cup vanilla or other flavored  
yogurt  
½ peach (canned, in juice) or  
fresh fruit

### **Dinner**

½ cup cooked enriched  
macaroni  
2 oz. lean ground beef  
¼ cup spaghetti sauce  
¼ cup cooked spinach or  
broccoli  
½ cup milk (lowfat)

### **Evening Snack**

1 oatmeal cookie  
½ cup milk (lowfat)  
½ orange or tangerine

For additional information, contact the local Cooperative Extension System office or Women, Infants and Children (WIC) program.

# Management Techniques for Challenging Children

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**Lead-poisoned children may present challenging behaviors**

When children are lead poisoned, they may show various learning and behavior 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 time one-on-one 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.

**Note that although challenging behaviors may indicate lead poisoning, they may also suggest other problems.**

## **Routines**

Challenging children usually behave more appropriately if they have a daily routine, an established sequence of events. The routine may include wake-up time, toileting, washing, breakfast, dressing, free play, leave for sitter/daycare/school, snack on return home, outdoor play, TV, dinner, wash up, and bedtime. 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 their rules are for the routine.

## **Adjust the Environment**

Adults should try to arrange the environment so that children do not have opportunities to display inappropriate behaviors. For example, if a child becomes overstimulated 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.

## **Label Behaviors and Give Positive Directions**

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."

*Material prepared by Cathy Malley, University of Connecticut Cooperative Extension System*

## **Techniques for Specific Problems**

**For very active children:** Step in before children lose control. Tell them they are too excited. They may move to another activity, cool off with a quiet activity (for example, reading or playing with clay), or blow off steam by active but safe play. Stay calm and speak with a soft voice, even if the children are screaming. 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 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 them they are expected to be at the table, but don't make them eat. Then don't keep them very long at the table.

**For children who have trouble stopping an activity:** Warn children that the end of the activity is approaching. Give them limits that they can understand: "You can push the lever two more times, and then you must stop."

**For children whose senses are extremely sensitive:** Some children are very sensitive to sights, sounds, smells, tastes, and touch. When possible, adjust the environment and adapt to their wishes: reduce loud noises and bright lights, let Sue wear the same coat every day, and give Jamal a peanut butter 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. Allow the child time to adjust to the new situation, watching 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, and ignore the mood.

# PART II

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## **Regulations and Resources**

# **Lead Poisoning Prevention and Control Regulations**

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## **Summary of state regulations to prevent lead poisoning**

The Connecticut Department of Public Health has issued a series of lead poisoning prevention and control regulations. These regulations set out the state's requirements for managing or removing (abating) paint, dust, and soil that contain toxic (poisonous) levels of lead. Their primary purpose is to prevent children from becoming lead poisoned.

### **Licensing of Child Daycare Facilities**

Before child daycare centers, group daycare homes, or family daycare homes are licensed or relicensed by the Department of Public Health, the premises must be examined for defective lead-based paint (that is, lead-based paint that is chipping, peeling, flaking, or chalking). If the licensing specialist finds defective paint during this examination, he/she will take samples from the defective painted surfaces and will notify the local health department. The local health department may conduct a more complete lead inspection. In that case, inspectors would take more samples, including paint from intact as well as defective painted surfaces, water, dust, and soil.

The Department of Public Health is responsible for making sure that childcare facilities meet state licensing regulations. The local health department is responsible for enforcing the lead poisoning prevention and control regulations.

After a local health department finds defective lead-based paint, the childcare licensing specialist from the Department of Public Health must receive written verification that the work needed to correct the problems has been carried out.

### **If Defective Lead-Based Paint Is Found in a Daycare Facility**

If defective lead-based paint is found, appropriate action to deal with that defective paint is required.

## *Lead Poisoning Prevention and Control Regulations*

### In Places Where Children Live

If a child under the age of six lives in a home that also serves as a daycare facility, then defective interior and exterior lead-based paint must be abated there.

Defective lead-based paint may be abated by one of the following methods:

1. Replacement: The lead-containing parts (such as windows, doors, and trim) must be removed or replaced with lead-free parts.
2. Encapsulation: The lead paint must be encapsulated (covered and sealed) with special coatings called **encapsulants**. The Connecticut Department of Public Health has a list of approved encapsulants.

*NOTE: Regular paints are **not** encapsulants.*

3. Enclosure: The lead paint may be covered with a hard material, such as sheetrock, paneling, or siding.

*NOTE: Wallpaper and contact paper are **not** acceptable barriers.*

4. Removal: The lead paint may be removed by using a chemical stripper or by wet scraping. It should not be removed by a power sander unless the sander has a vacuum with a HEPA filter, which traps very small particles.

All of the above lead abatement strategies are best accomplished by licensed and certified professionals. Any professional who performs lead paint abatement or lead inspections at a childcare facility must be certified by the Department of Public Health. The professional must also work under the auspices of a contractor licensed by the State of Connecticut.

### In Places Where Children Do Not Live

If a child under six does **not** live in the daycare facility, the local health department may consider other options for that facility, such as repairing the paint and repainting. The childcare provider should contact the local health department to discuss these options.

## **Management of Intact Lead-Based Paint**

Intact lead-based paint is paint that is not chipping, flaking, peeling, chalking, or otherwise damaged.

Any daycare facility that contains intact or encapsulated lead-based paint must have a written lead management plan. This plan should identify the location of the lead paint and should identify how often the paint will be inspected. This inspection should be done at regular intervals to ensure that the paint remains intact. It can be performed by a professional or by the property owner.

The plan should also identify procedures to be followed before any remodeling or renovation work is to be done at the facility.

## **Regulations**

The above is a brief outline of Connecticut regulations and statutes concerning lead poisoning prevention as they relate to daycare facilities. For details, see the full text of the relevant state regulations.

# Lead Poisoning Prevention Resource List

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**State and federal resources**

**Contact**

**For Information On**

**State Agencies**

*Connecticut Department of Public Health*  
Division of Environmental Health  
410 Capitol Avenue, MS#51 LED  
P.O. Box 340308  
Hartford, CT 06134-0308  
(860) 509-7299

- Lead in drinking water
- Lead-based paint inspection, abatement, and management
- Lead-related complaints
- Environmental issues other than waste disposal and lead pollution

*Connecticut Department of Environmental Protection*  
Bureau of Waste Management  
Engineering and Enforcement  
79 Elm Street  
Hartford, CT 06106  
(860) 424-3274

- Waste-disposal issues

*Connecticut Lead Project*  
555 Windsor Street  
Hartford, CT 06120  
(860) 280-0133

- Funding for housing abatements

*Connecticut Department of Consumer Protection*  
165 Capitol Avenue  
Hartford, CT 06106  
(860) 566-2534

- Connecticut disclosure regulations

*Connecticut Department of Public Health*  
Division of Environmental Epidemiology  
and Occupational Health  
410 Capitol Avenue, MS#11LDS  
P.O. Box 340308  
Hartford, CT 06134-0308  
(860) 509-7745

- Child blood lead reports and case management
- Educational issues, including requests for lead poisoning information and speakers

## *Lead Poisoning Prevention and Control Regulations*

### **Contact**

### **For Information On**

*Connecticut Department of Public Health*  
Division of Health Systems Regulation  
Lead Licensing and Certification  
410 Capitol Avenue, MS#12APP  
P.O. Box 340308  
Hartford, CT 06134-0308  
(860) 509-7559

- Lead licensure and certification
- Lead training course management

### **Federal Agencies**

*U.S. Environmental Protection Agency*  
Region 1  
John F. Kennedy Federal Building  
One Congress Street  
Boston, MA 02203  
(617) 565-3420

- Federal real estate disclosure law

*U.S. Department of Housing and Urban  
Development*  
Lead Listing  
(888) 532-3547

- Listing of lead professionals

*National Lead Information Center*  
Lead Hotline  
(800) 523-3394

- General lead information

*National Lead Information Center*  
Clearinghouse  
(800) 424-5323

- Technical information for professionals

# Cooperative Extension System Resource List

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## **Lead poisoning prevention education**

*Karen Filchak*

Cooperative Extension System  
139 Wolf Den Road  
Brooklyn, CT 06234

Phone: (860) 774-9600  
Fax: (860) 774-9480  
E-mail: [kfilchak@canrl.cag.uconn.edu](mailto:kfilchak@canrl.cag.uconn.edu)

*Mary-Margaret Gaudio*

Cooperative Extension System  
1800 Asylum Avenue  
West Hartford, CT 06117

Phone: (860) 570-9072  
Fax: (860) 570-9008  
E-mail: [mgaudio@canrl.cag.uconn.edu](mailto:mgaudio@canrl.cag.uconn.edu)

*Lynne Grant*

Cooperative Extension System  
67 Stony Hill Road  
Bethel, CT 06801

Phone: (203) 797-4176  
Fax: (203) 797-4377  
E-mail: [lgrant@canrl.cag.uconn.edu](mailto:lgrant@canrl.cag.uconn.edu)

*Faye Griffiths*

Cooperative Extension System  
350 Skiff Street  
North Haven, CT 06473

Phone: (203) 789-7865  
Fax: (203) 789-6461  
E-mail: [fgriffit@canrl.cag.uconn.edu](mailto:fgriffit@canrl.cag.uconn.edu)

*Mary Ellen Welch*

Cooperative Extension System  
1066 Saybrook Road, Box 70  
Haddam, CT 06438

Phone: (860) 345-4511  
Fax: (860) 345-3357  
E-mail: [mwelch@canrl.cag.uconn.edu](mailto:mwelch@canrl.cag.uconn.edu)

For additional information on activities for children and on parenting,  
contact:

*Maureen T. Mulroy*

Cooperative Extension System  
University of Connecticut  
U-36, 1376 Storrs Road  
Storrs, CT 06269-4036

Phone: (860) 486-1003  
Fax: (860) 486-4128  
E-mail: [mmulroy@canrl.cag.uconn.edu](mailto:mmulroy@canrl.cag.uconn.edu)

# **PART III**

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## **Activities for Young Children**

# Activities for Young Children

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**Young children can learn simple skills to help prevent lead poisoning**

The activities in this section of the curriculum have been designed to help young children understand what happens when lead gets inside their bodies and to teach them how they can reduce or avoid the harmful effects of lead. A special effort has been made to inform children about the dangers of lead without causing them undue concern, worry, or fear. For that reason, this section avoids the term “lead poisoning.”

Your knowledge of the children in your daycare program is vital to the success of the activities described in this unit. You can guide the children through these activities, modifying them to meet the individual or group needs of the children. You can provide the information that the children need to become careful in their daily lives, without scaring them. You can address any misunderstandings or concerns that may arise as a result of a child’s participation, ensuring that all the children have an accurate understanding that is appropriate for their age group.

## Overview of Activities

### Circle Time Activities

1. Felt board story: *Two Friends Learn about Lead*
2. Circle game: *I Can Beat Lead!*

### Indoor/Outdoor Activities

3. Bean bag game: *Lead Busters to the Rescue!*
4. Hopscotch: *Lead Alert!*

### Music and Movement Activities

5. Song: *Get the Lead Out Rap*
6. Song: *Looking for Peebee, Do Not Touch Him*

### Cooking Activities

7. Snack: *Oatmeal Rounds*
8. Snack: *Mexican Bean Wheels*

### Art Activities

9. Coloring (drawings): *Color Me Lead Smart*
10. Coloring (posters): *Lead Busters*

*Material prepared by Maureen T. Mulroy, University of Connecticut Cooperative Extension System*

## **Circle Time 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 the lead out.
- There are four good ways for children to keep lead from getting into their bodies and staying there:
  1. They should wash their hands with soap and water before they eat and after they play.
  2. They should leave their shoes near the outside door and wear slippers or socks when they are inside their homes.
  3. They should eat healthy foods.
  4. They should stay away from paint chips and dust.

##### **Materials Needed**

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

##### **Preparation Needed**

- 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 copier.) 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.

## Activities for Young Children

- 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

#### Correction

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

Easel paint and other paints used in school do **not** contain lead. They are safe to use.

Pencils have lead, so they aren't 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.

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

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.

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

**Felt board  
story**

**Two Friends Learn about Lead**

**Introduction**

I am going to tell you a story about two friends who got very sick because they ate paint chips and played with dirt that contained lead. These children had to go to 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!

Pattern piece:

**Story**

- 1 (home)
- 2 (girl)
- 3 (boy)

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

- 4 (bike)

[Girl's name] \_\_\_\_\_ and [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!

- 5a and 5b (sandbox and sand)

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, "Honey, 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!"

- 6 (grass)
- 7 (rocks)
- 8 (leaves, twig)

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!

9 (paint chips) Then they would look for a pretend “dessert.” Most of the time, they would go over to the steps of the [house, condo, or apartment] \_\_\_\_\_ to scrape up the paint dust that had fallen into the dirt. And then they would go over to the wall of the [house, condo, or 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 dust 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.

10 (two adults) 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!”

11 (doctor) 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.

- 12 (needle) The children sat on their [mothers', fathers', parents', or guardians'] \_\_\_\_\_ laps, while the doctor pricked their fingers with a needle and took some blood. "Ouch!" said [girl's name] \_\_\_\_\_. "Ow!" said [boy's name] \_\_\_\_\_. "It's all over!" said the doctor as she gave each of them a [lollypop or sucker] \_\_\_\_\_.
- 13 (lolly-pop)

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.

Lead-busters message:

- This is what the doctor told them:
- 1 • "Children, you can *wash your hands with soap and water before you eat and after you play.*"
  - 2 • "Children, you can *leave your shoes near the outside door and wear slippers or socks when you are inside your home.*"
  - 3 • "Children, you can *eat foods that keep lead from staying inside your body. Some of these foods are beans, milk, cheese, yogurt, meat, and green vegetables like collards, beans, broccoli, and spinach.*"
  - 4 • "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 after we play.*"

- “Yes, we can *leave our shoes near the outside door and wear slippers or socks when we are inside our homes.*”
- “Yes, we can *eat foods that keep lead from staying inside our bodies. Some of these foods are beans, milk, cheese, yogurt, 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: Eating paint chips and dirt that contained lead.]*
- Where did the lead come from? *[Answer: Paint that had 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 is 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 stay away from paint chips and dust. We can wash our hands with soap and water before we eat and after we play. We can leave our shoes near the outside door and wear slippers or socks when we are inside our homes. We can eat foods that keep lead from staying inside our bodies.]*

## **Activity 2**

### **Circle Game: I Can Beat Lead!**

#### **Objective**

- To describe actions that children can take to reduce the harmful effects of lead.

#### **Key Concepts**

- There are four good ways for children to keep lead from getting into their bodies and staying there:
  1. They should wash their hands with soap and water before they eat and after they play.
  2. They should leave their shoes near the outside door and wear slippers or socks when they are inside their homes.
  3. They should eat healthy foods.
  4. They should stay away from paint chips and dust.

#### **Materials Needed**

- Four “Lead Busters” posters (found at the end of this manual)
- Eight Peebee Paint Chip and Dusty cards (found at the end of this manual)

#### **Preparation Needed**

- Photocopy the four “Lead Busters” posters. Color the copies and cover them with clear contact paper.
- Photocopy the eight Peebee Paint Chip and Dusty cards onto heavy paper if possible. Color the copies and cut out the cards. Remember to vary the colors of the paint chips and dust.

#### **Setup**

- Place the “Lead Busters” posters so that all the children in the group can see them.
- Shuffle the Peebee Paint Chip and Dusty cards and place them face down on the floor in front of you.

#### **Introduction**

- Ask the children whether they remember the felt board story about the two friends 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 and after you play.
  2. Leave your shoes near the outside door, and wear slippers or socks when you are inside your home.

3. Eat healthy foods that keep lead from staying in your body. These foods include 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 and Dusty can look different on different cards. Sometimes Peebee looks like a paint chip, and other times 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 everywhere.

### **Procedure**

- Have one child come up to the deck of Peebee and Dusty cards and choose a card.
- Have the child answer three questions:
  1. Which character is this (Peebee or Dusty)?
  2. What color is the paint?
  3. Where was this character found (for example, on the window or next to the door)?
- Ask the child to look at the “Lead Busters” posters and point to one thing he/she could do to keep lead from staying in his/her body. Have the child say 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 selection and have him/her return to the group.
- Repeat the procedures until all the children have had a turn and all four prevention messages have been covered.

### **Closure**

- Ask the children whether they have tried to follow any of the lead-buster 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/her. You may wish to speak with this child’s parent or guardian about his/her response to the game.

## **Indoor/Outdoor Activities**

### **Activity 3**

#### **Bean Bag Game: Lead Busters to the Rescue!**

##### **Objective**

- To reinforce the four messages of the “Lead Busters” posters.

##### **Key Concepts**

- Children should know the following rules:
  1. Wash your hands with soap and water before you eat and after you play.
  2. Leave your shoes near the outside door, and wear slippers or socks when you are inside your home.
  3. Eat healthy foods that keep lead from staying in your body. These foods include beans, milk, cheese, yogurt, meat, and vegetables like greens, beans and broccoli.
  4. Stay away from paint chips and dust.

##### **Materials Needed**

- “Lead Busters” posters displayed around the room
- Pictures of Peebee Paint Chip and Cousin Dusty
- Empty milk cartons (½ gallon size)
- Bean bags (note: there should be an equal number of bean bags and milk cartons)
- A line taped or chalked on the ground or floor

##### **Preparation**

- Tape one picture of Peebee or Dusty onto each milk carton (see patterns for pictures).
- Place the cartons in a line on a long table or several tables pushed together. Leave a few inches between the cartons. Make sure the pictures are facing the children.
- Place the bean bags in a box next to the “throwing” line that has been taped or chalked on the floor or ground.

##### **Introduction**

- Show the children the Peebee and Dusty cartons and tell them that they will be playing a game called “Lead Busters to the Rescue!”
- Tell the children that a lead buster is someone who knows and follows the lead buster rules.
- Explain and then demonstrate the rules of the game:
  1. The child stands behind the “throwing” line and picks up a bean bag from the box. The child takes “aim” at one of the cartons and says, “Peebee/Dusty, I am a lead buster!”

## *Activities for Young Children*

2. The child throws the bean bag. If she/he hits a carton, she/he gets to recite or point to her/his favorite lead-busters message. Give the child three opportunities to throw the bean bag. If the child misses all three times, she/he goes to the end of the line.
3. If the child recites the message correctly, everyone yells “Lead Busters to the Rescue!” Then the child gets to throw the bean bag again.
4. If the child does not recite the message correctly, his/her turn is over.

### **Procedure**

- Have the children line up behind the “throwing” line.
- The first one in the line picks up a bean bag, and the teacher prompts him/her through the rules of the game.
- The game proceeds until everyone has had a chance to be a lead buster.

### **Closure**

- Ask the children whether they have ever been lead busters (by using their lead-busting rules) at home or at the daycare center.
- Listen to what the children have done and praise their efforts.
- Ask them whether they have taught these messages to anyone (for example, a brother or sister, parent, grandparent, or guardian).

## **Activity 4**

### **Hopscotch: Lead Alert!**

#### **Objective**

- To reinforce the four messages of the “Lead Busters” posters.

#### **Key Concepts**

- Children should know the following rules:
  1. Wash your hands with soap and water before you eat and after you play.
  2. Leave your shoes near the outside door, and wear slippers or socks when you are inside your home.
  3. Eat healthy foods that keep lead from staying in your body. These foods include beans, milk, cheese, yogurt, meat, and vegetables like greens, beans and broccoli.
  4. Stay away from paint chips and dust.

#### **Materials Needed**

- Chalk (for outside) or masking tape (for inside)
- Pictures of Peebee Paint Chip and Cousin Dusty
- “Lead Busters” posters
- Bean bags (one for each child)

#### **Preparation**

- Outside: Draw a hopscotch grid with chalk on a sidewalk or driveway. Draw in or tape down pictures of Peebee and Dusty (see patterns for sample grids).
- Inside: Use the masking tape to mark the hopscotch grid on the floor or rug. Tape the Peebee and Dusty pictures inside the taped hopscotch boxes as they appear on the grid pattern. Make sure the squares can’t slip or slide.
- Place the bean bags in a box next to the starting line or starting box. Note: Every child should have her/his own bean bag.
- If you think it would be helpful, review the messages of the “Lead Busters” posters with the children before starting the game.

#### **Introduction**

- Show the children the hopscotch grid and tell them that they will be playing a game called “Lead Alert!” hopscotch.
- Explain and demonstrate the game:
  1. Have one child at a time stand with both feet together behind the starting line (or in the starting box).
  2. Then have the child toss her/his bean bag into the first box. If the child misses the box completely, she/he must pick up the bean bag and go to the end of the line.

## *Activities for Young Children*

3. If there is a Peebee or Dusty picture in that box, the child must recite one of the rules of the “Lead Busters” posters rules before he/she can jump into that box. (Note: The younger children can jump or hop using both feet. The older children should be encouraged to hop using one foot.)
4. If a child cannot remember one of the rules, then he/she must pick up his/her bean bag and go to the end of the line, to wait for his/her next turn.

### **Procedure**

- Have the children line up behind the starting line or starting box.
- The first one in the line picks up a bean bag and tosses it into the first box.
- The children take turns, following the rules outlined above.
- The game proceeds until everyone has had a chance to complete the hopscotch grid.

### **Closure**

- Ask the children whether they have ever been lead busters (by using their lead-busting rules) at home or at the daycare center.
- Listen to what the children have done and praise their efforts.
- Ask them whether they have taught these messages to anyone (for example, a brother or sister, parent, grandparent, or guardian).

## **Music and Movement Activities**

### **Activity 5**

#### **Song: “The Get the Lead Out Rap”**

##### **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. Wet hands with 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 twenty seconds to make sure that all of the dirt and lead are gone. (Our hand washing song takes twenty seconds to sing.)
- Children should wash their hands before they eat and after they play.

##### **Materials Needed**

- “The Get the Lead Out Rap”

##### **Preparation Needed**

- Make up or adapt any rap tune that will fit the words of “The Get the Lead Out Rap.”
- Make two photocopies 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 “The Get the Lead Out Rap” so 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 staying there.
- If necessary, point to the “Lead Busters” posters to reinforce the four prevention messages. Remind the children:
  1. Wash your hands with soap and water before you eat and after you play.
  2. Leave your shoes near the outside door, and wear slippers or socks when you are inside your home.

3. Eat healthy foods that keep lead from staying in your body. These foods include beans, milk, cheese, yogurt, meat, and vegetables like greens, beans and broccoli.
  4. Stay away from paint chips and dust.
- Tell the children that there are five steps to washing their hands:
    1. Wet hands with 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 “The Get the Lead Out Rap.”

### **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 Get the Lead Out Rap.”
- 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.
- When the children have learned all the verses of the rap song, you can have them act it out.

### **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? [*Twenty seconds, or as long as it takes to sing “The Get the Lead Out Rap.”*]
- When should you wash your hands if you want to keep lead out of your body? [*Before eating and after playing.*]

**Song**

**Get the Lead Out Rap**

*(to be sung to any appropriate rap beat)*

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, now 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!

Lyrics courtesy of Tin Ear Associates

## **Activity 6**

### **Song: Looking for Peebee, Do Not Touch Him**

#### **Objectives**

- To reinforce the lead-busting message that they should stay away from paint chips and dust.
- To encourage children to report paint chips, flakes, or dust to an adult.

#### **Key Concepts**

- Children should never touch or taste paint chips, flakes, or dust. These things can make them sick.
- Children should always report paint chips, flakes, or dust to an adult.

#### **Materials Needed**

- “Looking for Peebee, Do Not Touch Him” song (to be sung to the tune of the “Paw Paw Patch” song, or “Picking Up Paw Paws.”)
- The Peebee Paint Chip and Dusty cards (see circle time activity 2).

#### **Preparation Needed**

- Practice singing the “Looking for Peebee” song until you have memorized it and feel comfortable teaching it to the children.
- Tape the Peebee and Dusty cards onto places where lead paint chips or dust could be found (for example, on painted radiators, window sills, woodwork, or door frames).

#### **Introduction**

- Ask the children whether they remember Peebee Paint Chip and his cousin Dusty.
- Tell them that they are going to learn a special song that will help them to remember an important lead-busters message—to stay away from paint chips and paint dust.

#### **Procedure**

- Tell the children that first you will sing the new action song. They are to look and listen, and later they can join in.
- First, sing the song and have the children listen. Next, sing the song again while you move around the room pointing to the Peebee and Dusty cards. Exaggerate the “do not touch him” action.
- Ask the children if they are ready to try the song. When they indicate their readiness, let them sing the song.
- Next, tell them that **you** will sing the song, and **they** will look for Peebee and Dusty. Ask them what they will do when they see Peebee and Dusty: “Will you touch them?” They should say “No.”
- Begin singing the song while the children look for the cards. Keep singing until all the cards have been found.

**Closure**

- Ask the children the following questions:
  1. Where might Peebee or his cousin Dusty be found? *[Answer: On painted radiators, window sills, woodwork, or door frames. You can show them the cards to prompt their memories.]*
  2. What should you do if you find paint chips or paint dust? *[Answer: Do not touch them; stay away from them; tell an adult.]*
  3. What are some other things you can do to make sure that lead doesn't get inside your body or make you sick? *[Answer: Wash your hands before you eat and after you play; take off your shoes before you come inside; eat healthy foods.]*

**Song**

**Looking for Peebee, Do Not Touch Him**

*(to be sung to the tune of "The Paw Paw Patch")*

Where, oh where, is Peebee Paint Chip?  
Where, oh where, is Peebee Paint Chip?  
Where, oh where, is Peebee Paint Chip?  
Anywhere around the house and yard!

What should I do then, if I find him?  
What should I do then, if I find him?  
What should I do then, if I find him?  
Anywhere around the house or yard!

*Tell your mom or tell your dad!\**  
*Tell your mom or tell your dad!*  
*Tell your mom or tell your dad!*  
*But do not touch him 'cause he is bad!*

Where, oh, where, is Cousin Dusty?  
Where, oh, where is Cousin Dusty?  
Where, oh, where, is Cousin Dusty?  
Anywhere around the house or yard!

What should I do then, if I see him?  
What should I do then, if I see him?  
What should I do then, if I see him?  
Anywhere around the house or yard!

*Tell your mom or tell your dad!*  
*Tell your mom or tell your dad!*  
*Tell your mom or tell your day!*  
*But do not touch him 'cause he is bad!*

\* Substitute the words "guardian," "grandma," "grandpa," "uncle," "aunt," or other terms, if appropriate for your group.

## **Cooking Activities**

### **Activity 7**

#### **Oatmeal Rounds: Snacks That Provide Calcium, Iron, and Zinc**

##### **Objective**

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

##### **Key Concepts**

- Some foods, such as milk, cheese, yogurt, peanut butter, and dried fruit are rich in calcium, iron, and zinc.
- Eating these foods may keep lead from staying in children's bodies and making them sick.

##### **Materials**

- Measuring cups (one set for dry ingredients and one for wet ingredients)
- One large mixing bowl and one small mixing bowl
- Wax paper
- Teaspoons (one for each child)
- Mixing spoons
- Two trays
- Cookie sheet
- Ingredients: peanut butter, honey, oatmeal, nonfat dry milk, raisins or other dried fruit, wheat germ

##### **Preparation Needed**

- Read the recipe for oatmeal rounds to familiarize yourself with the steps for preparation.
- 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.
- Line a cookie sheet with waxed paper.
- Cut out 12-inch squares of wax paper, one for each child.
- Have two children wash and dry the table to be used in this activity.
- 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 and after you play*) and have them sing "The Get the Lead Out Rap."

##### **Introduction**

- Ask the children if they remember the four lead-busters messages:
  1. Wash your hands with soap and water before you eat and after you play.
  2. Leave your shoes near the outside door and wear slippers or socks when you are inside your homes.
  3. Eat healthy foods.

4. Stay away from paint chips and dust.
- Tell the children that they are going to make oatmeal rounds, a snack that has lots of calcium, iron, and zinc. Calcium, iron, and zinc help keep lead from staying in their bodies.
  - Explain that everyone will have a turn adding and mixing ingredients.
  - Explain that the oatmeal rounds they make will be served during their [morning or afternoon snack or lunch].

**Procedure**

- Read the first step in the directions and ask the children what is the first thing that needs to be done.
- After reading each step, 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 snack.  
*[Answer: Washing hands.]*
- Ask them which rule they will use when they eat the snack. *[Answer: Eating healthy foods.]*

**Recipe**

**Oatmeal Rounds**

*Yield: 36 rounds*

**Ingredients:**

1 cup oatmeal (quick cooking or instant)	½ cup honey
½ cup nonfat dry milk (instant)	1 cup peanut butter
1 cup raisins or other chopped dried fruit	1 cup wheat germ

Have children do as much of the work on their own as possible, with careful supervision. Offer help as necessary.

1. Scoop oatmeal out of its box into a 1-cup measuring cup. Pour oatmeal into the large mixing bowl.
2. Pour nonfat dry milk (instant) from the box into a ½-cup measuring cup. Pour dry milk into the large mixing bowl.
3. Scoop raisins or other dried fruit from its box into a 1-cup measuring cup. Pour fruit into the large mixing bowl.
4. Use a large mixing spoon to stir all of these dry ingredients together until well mixed.
5. Pour honey out of the jar into a ½-cup measuring cup. Pour honey into the large mixing bowl.
6. Scoop out peanut butter from the jar into a 1-cup measuring cup. Scrape peanut butter into the large mixing bowl.
7. Use a large mixing spoon to stir all of the ingredients together. Mix until all of the ingredients have combined and blended.
8. Give each child a square of wax paper. Have each child scoop out some of the mixture with a teaspoon and place it on the wax paper.
9. Have each child shape the mixture into a 1-inch ball using his/her spoon.
10. Pour wheat germ into 1-cup measuring cup. Pour wheat germ into the small bowl. Have each child drop his/her ball into the bowl of wheat germ and roll it around with his/her spoon until the ball is coated. Then have the children transfer the ball to the tray lined with wax paper. Cover the tray with additional wax paper and refrigerate until the snack is served.

Recipe adapted from *Supersnacks*, a publication of the Connecticut Cooperative Extension System.

## **Activity 8**

### **Mexican Bean Wheels: Snacks That Provide Iron and Zinc**

#### **Objective**

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

#### **Key Concepts**

- Some foods, such as beans, tofu, and canned fish, are rich in iron and zinc.
- Eating foods rich in iron and zinc may keep lead from staying in children's bodies and making them sick.

#### **Materials**

- Medium-size mixing bowl
- Measuring spoons (one set for dry ingredients and one for wet ingredients)
- Measuring cups
- Mixing spoons
- Two trays
- Toothpicks
- Sturdy plastic knives for cutting up vegetables and spreading bean paste
- Sturdy metal forks for mashing beans
- Ingredients: flour tortillas, lowfat mayonnaise or plain yogurt, vinegar, chili powder, garlic powder, cooked kidney or pinto beans, celery, onion or green pepper; optional: lettuce leaves, cheese, or green pepper strips

#### **Preparation Needed**

- Read the recipe for Mexican bean wheels to familiarize yourself with the steps for preparation.
- Assemble all the ingredients and place them on a tray in the order you will use them.
- If you think that the children in your group cannot manage the task of cutting up the vegetables, then do this in advance.
- Assemble all the cooking utensils and place them on another tray.
- Have two children wash and dry the table to be used in this activity.
- 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 and after you play*) and have them sing "The Get the Lead Out Rap."

#### **Introduction**

- Ask the children if they remember the four lead-busters messages:
  1. Wash your hands with soap and water before you eat and after you play.
  2. Leave your shoes near the outside door and wear slippers or socks when you are inside your homes.

3. Eat healthy foods.
  4. Stay away from paint chips and dust.
- Tell the children that they are going to make a snack food that has lots of iron and zinc. Iron and zinc helps keep lead from staying in their bodies.
  - Explain that everyone will have a turn adding and mixing ingredients.
  - Explain that the snack food that they make will be served during their [morning or afternoon snack or lunch].

**Procedure**

- Read the first step in the directions and ask the children what is the first thing that needs to be done.
- After reading each step, 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 snack.  
*[Answer: Washing hands.]*
- Ask them which rule they will use when they eat the snack. *[Answer: Eating healthy foods.]*

**Recipe**

**Mexican Bean Wheels**

*Yield : 12 wheels*

Ingredients:

¾ cup cooked kidney or pinto beans	1 teaspoon vinegar
3 tablespoons chopped celery	¼ teaspoon chili powder
1 tablespoon chopped onion or green pepper	⅛ teaspoon garlic powder
2 teaspoons lowfat mayonnaise or plain yogurt	
2 flour tortillas	

Optional: tomatoes, lettuce, sliced cheese, green pepper strips

1. Scoop out cooked kidney or pinto beans into a 1-cup measuring cup. Fill the cup ¾ full. Pour the beans into the mixing bowl.
2. Mash the beans using metal forks.
3. Add 3 tablespoons of chopped celery to the beans. Note: Older children may be able to chop celery with adult supervision.
4. Add 1 tablespoon of chopped onion or green pepper. Note: Older children may be able to cut up onion or green pepper with adult supervision.
5. Stir all these ingredients together.
6. Measure 2 teaspoons of lowfat mayonnaise or plain yogurt and add to the bean mixture.
7. Measure 1 teaspoon of vinegar to the bowl.
8. Measure ¼ teaspoon of chili powder and ⅛ teaspoon of garlic powder and add to the bowl.
9. Stir all the ingredients together. Mix well.
10. Place half of the bean mixture on one edge of a tortilla and spread until the whole tortilla is covered with the bean mixture. Roll the tortilla over until it reaches the opposite edge. Insert six toothpicks through the rolled tortilla so it can't unroll. Cut the tortilla roll into six wheels. Cover with plastic wrap or wax paper and refrigerate until the snack is served.

Optional: The Mexican bean wheels can be served on pieces of lettuce with tomato wedges, cheese slices, or leftover green pepper cut in strips.

Recipe adapted from *Making Bag Lunches, Snacks and Desserts Using the Dietary Guidelines* (USDA/HNISA H&G Bulletin No. 232-9).

## **Art Activities**

### **Activity 9**

#### **Coloring: Color Me Lead Smart**

##### **Objectives**

- To determine how much the children have learned about keeping lead out of their bodies.
- To correct any misunderstandings that the children may have about 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 the lead out.
- There are four good ways for children to keep lead from getting into their bodies and staying there:
  1. They should wash their hands with soap and water before they eat and after they play.
  2. They should leave their shoes near the outside door and wear slippers or socks when they are inside their homes.
  3. They should eat healthy foods.
  4. They should stay away from paint chips and dust.

##### **Materials Needed**

- Crayons, markers, or colored pencils
- Drawing paper

##### **Preparation Needed**

- If you wish, read the felt board story "Two Friends Learn about Lead" again.
- Prepare a "Color Me Lead Smart" bulletin board area to display children's artwork.

##### **Setup**

- Distribute the drawing paper to the children and have the crayons or markers readily accessible.

##### **Introduction**

- Tell the children that they are going to draw pictures about what they have learned about keeping lead out of their bodies.

**Procedure**

Note: You may wish to break this activity into three separate art activities.

- Ask the children what would happen if lead got into their bodies. Ask them how they would feel if they were sick from having too much lead in their bodies. Ask them how their bodies would look. Listen to their responses and then ask them to draw a picture of what they would look like if they were sick from lead.
- Ask the children to imagine going to the [doctor's office or clinic] and getting tested for lead. Ask them what they think would happen. Listen to their responses and then ask them to draw this experience.
- Ask the children to draw a picture of themselves feeling better and following one of the lead-buster messages.

**Closure**

- Have the children post their pictures on the "Color Me Lead Smart" bulletin board.
- Encourage them to share their pictures with their parents or guardians.

## **Activity 10**

### **Coloring: Lead Busters Posters**

#### **Objective**

- To take the lead-busters messages home to be shared with all family members.

#### **Key Concepts**

- There are four good ways for children to keep lead from getting into their bodies and staying there:
  1. They should wash their hands with soap and water before they eat and after they play.
  2. They should leave their shoes near the outside door and wear slippers or socks when they are inside their homes.
  3. They should eat healthy foods.
  4. They should stay away from paint chips and dust.

#### **Materials Needed**

- Crayons, markers, or colored pencils
- “Lead Busters” poster set for each child

#### **Preparation Needed**

- If you wish, read the felt board story “Two Friends Learn about Lead” again.
- Photocopy the “Lead Busters” posters so that each child can have a copy of each poster.

#### **Setup**

- Distribute the “Lead Busters” posters to the children and have the crayons or markers readily accessible.
- Write each child’s name on her/his posters.

#### **Introduction**

- Tell the children that they are going to make their own “Lead Busters” posters to take home and use with their families.

#### **Procedure**

Note: You may wish to break this activity into a series of art activities.

- Have the children decide which of the four posters to begin coloring.

#### **Closure**

- Ask the children how they intend to use their “Lead Busters” posters at home.
- Encourage them to share their posters with their mothers, fathers, guardians, siblings, friends.

# **PART IV**

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## **Project Evaluation**

# Lead-Poisoning Prevention Project Evaluation

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**Rating the effectiveness of this lead-poisoning prevention training material**

In order to determine the effectiveness of this training material, the trainers need to find out (1) what you knew about critical lead-related topics **before** you received this training and (2) what you know **after** you received this training. Please rate your knowledge of the specific areas by checking off the appropriate boxes.

Before Training			Area of Knowledge	After Training		
I knew a lot about	I knew something about	I knew nothing about		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 in children			
			The effects of lead on young children's learning, behavior, and development			
			The importance of testing children under 6 years old for lead			
			The actions that need to be taken when a child tests positive for lead			
			The fact that lead-based paint (as chips, flakes, or dust) is the major source of lead exposure			
			The ways in which lead can be brought into a home			

Before Training			Area of Knowledge	After Training		
I knew a lot about	I knew something about	I knew nothing about		I know a lot about	I know something about	I know nothing about
			The effectiveness of preventive measures, such as hand washing and housecleaning with phosphate solutions, in reducing exposure to lead			
			The role a balanced diet may play in lowering the amount of lead that is absorbed by the body			
			The potential benefits of a diet that is rich in iron, calcium, and zinc and low in fat in lowering the amount of lead that is absorbed by the body			
			Techniques that can be used to help children with behavioral challenges			

**About the providers**

To help make sure that these materials are distributed to all groups that might find them useful, please provide the following information:

**1. Type of childcare provider:**

- family daycare provider                       center daycare provider  
 school-age childcare provider                       other: \_\_\_\_\_

**2. Race/ethnicity:**

- Caucasian                       African-American                       Hispanic  
 Asian                               other: \_\_\_\_\_

**3. Number of children served at the facility:**

\_\_\_ infants      \_\_\_ toddlers      \_\_\_ preschoolers      \_\_\_ school-age children

**4. Town where facility is located:** \_\_\_\_\_

**5. Would you recommend this program to:**

A colleague? \_\_\_ yes \_\_\_ no                      Others? \_\_\_ yes \_\_\_ no

**How this material will be used**

Please answer the following questions as honestly as you can.

Use of Training Materials	Yes	No	Not Sure
<b>Reading</b>			
Will you read <b>all</b> the fact sheets in the section “Preventing Lead Poisoning in Children” of this resource manual?			
Will you read <b>all</b> the information in the section “Regulations and Resources”?			
Will you read <b>all</b> the activity plans in the section “Activities for Young Children”?			
<b>Using</b>			
Will you use the information on preventing lead poisoning in your work as a childcare provider?			
Will you use the information about state regulations and resources in your work as a childcare provider?			
Will you use one or more of the activity plans in your work as a childcare provider?			
<b>Distributing</b>			
Will you distribute one or more of the fact sheets about preventing lead poisoning <ul style="list-style-type: none"> <li>• to parents or guardians involved with your childcare facility?</li> <li>• to others? (Please specify: _____)</li> </ul>	_____	_____	_____
Will you distribute the information about state regulations and resources <ul style="list-style-type: none"> <li>• to parents or guardians involved with your childcare facility?</li> <li>• to others? (Please specify: _____)</li> </ul>	_____	_____	_____
Will you distribute one or more activities plans <ul style="list-style-type: none"> <li>• to parents or guardians involved with your childcare facility?</li> <li>• to others? (Please specify: _____)</li> </ul>	_____	_____	_____