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DEPARTMENT OF HEALTH AND WELFARE
Division of Health

Office of Environmental Health

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July 20, 1994

Dr. Robert Mason
NIOSH
4676 Columbia Parkway
Cincinnati, OH 45226

Dear Dr. Mason:

Your inquiry about elevated blood lead in children resulting from parental occupational lead exposure was referred to me by Russell Duke. I maintain the Idaho lead registry and follow up on reported cases of elevated blood lead of 10 $\mu\text{g}/\text{dL}$ or more. Our office has not confirmed any cases of elevated blood lead in children resulting from a parent's occupational lead exposure.

When I receive a report of elevated blood lead, I contact the subject, or in the case of children, their parents. I conduct a telephone interview, or if I am unable to contact the individual by phone, I send a letter of explanation along with a questionnaire and request that they complete and return it to me.

I ask the individuals if they would like to receive printed information. If they respond affirmatively, I send one of the enclosed brochures depending on the type of exposure, childhood or adult occupational.

I hope this information is useful to you. If you have additional questions, please call me at (208) 334-4963.

Sincerely,

Linda Stokes
Medical Monitoring Coordinator

enc.

clean up thoroughly. Don't try to remove lead paint yourself.

- ✓ All occupants, especially children and pregnant women, should leave the building until all work is finished *and a thorough cleanup is done.*

5. Don't bring lead dust into your home.

If you work in construction, demolition or painting, with batteries, or in a radiator repair shop or lead factory, or if your hobby involves lead, you may unknowingly bring lead into your home on your hands or clothes. You may also be tracking in lead from the soil around your home. Soil very close to homes may be contaminated from lead paint on the outside of the building. Soil by roads or highways may be contaminated from years of exhaust fumes from cars and trucks that used leaded gas.

- ✓ If you work with lead in your job or a hobby, change your clothes before you go home.
- ✓ Encourage your children to play in sand or grassy areas instead of dirt which sticks to fingers and toys. Try to keep your children from eating dirt, and make sure they wash their hands when they come inside.

6. Get lead out of your drinking water.

Most well or city water does not naturally contain lead. Water usually picks up lead *inside your home* from household plumbing that is made with lead materials. Boiling the water will not reduce the amount of lead. Bathing is not a problem because lead does not enter the body through the skin.

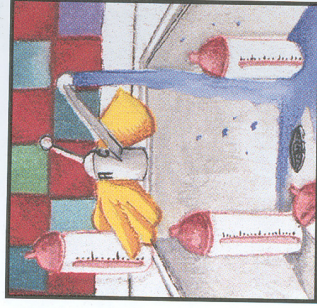
- ✓ *The only way to know if you have lead in your water is to have it tested.* Call your local health

department or your water supplier to see how to get it tested. Testing your water is easy and cheap (\$15-\$25).

- ✓ Household water will contain more lead if it has sat for a long time in the pipes, is hot, or is naturally acidic.

- ✓ If your water has not been tested or has high levels of lead:

- 1) do not drink, cook, or make baby formula with water from the hot water tap.



- 2) if the cold water hasn't been used for more than two hours, run it for 30 to 60 seconds before drinking it or using it for cooking.
- 3) consider buying a filter certified for lead removal. Call EPA's Safe Drinking Water Hotline for more information.

7. Eat right.

A child who gets enough iron and calcium will absorb less lead. Foods rich in iron include eggs, lean red meat, and beans. Dairy products are high in calcium.

- ✓ Don't *store* food or liquid in lead crystal glassware or imported or old pottery.
- ✓ If you reuse plastic bags to store or carry food, keep the printing on the outside of the bag.



Lead awareness and your children

About one in six children in America have high levels of lead in their blood, according to the Agency for Toxic Substances and Disease Registry. You may have lead around your building without knowing it because *you can't see, taste, or smell lead*. You may have lead in the dust, paint, or soil in and around your home, or in your drinking water or food. Because it does not break down naturally, lead can remain a problem until it is removed.

Before we knew how harmful it could be, lead was used in paint, gasoline, water pipes, and many other products. Now that we know the dangers of lead, house paint is almost lead-free, leaded gasoline is being phased out, and household plumbing is no longer made with lead materials.

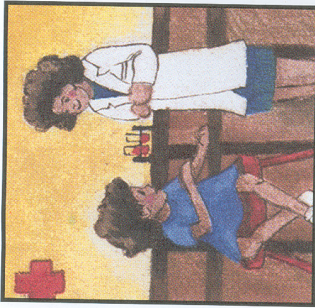
How lead affects your child's health

The long term effects of lead in a child can be severe. They include learning disabilities, decreased growth, hyperactivity, impaired hearing, and even brain damage. If caught early, these effects can be limited by reducing exposure to lead or by medical treatment. If you are pregnant, avoid exposing yourself to lead. Lead can pass through your body to your baby. The good news is that there are simple things you can do to help protect your family.

1. Get your child tested.

Even children who appear healthy may have high levels of lead. You can't tell if a child has lead poisoning unless you have him or her tested. A blood test takes only ten minutes, and results should be ready within a week.

- ✓ The Centers for Disease Control recommend that children be tested for the first time when they are a year old, or at six months if you think



your home has lead in it or if you live in an older building.

- ✓ Children older than one year should have a blood test every couple of years—*every year* if your house or apartment contains lead paint, or if you use lead in your job or hobby.
- ✓ To find out where to have your child tested, call your doctor or local health clinic.

2. Keep it clean.

Ordinary dust and dirt may contain lead.

Children can swallow lead or breathe lead contaminated dust if they play in dust or dirt and then put their fingers or toys in their mouths, or if they eat without washing their hands first.

- ✓ Keep the areas where your children play as dust-free and clean as possible.
- ✓ Wash pacifiers and bottles after they fall on the floor. Keep extras handy.
- ✓ Mop floors and wipe window ledges and chewable surfaces such as cribs with a solution of powdered automatic dishwasher detergent in warm water. Do this twice each week. Wear gloves to avoid possible skin irritation. (Dishwasher detergents are recommended because of their high-phosphate content. Most multi-purpose cleaners do not

contain phosphates and are not effective in cleaning lead dust.)

- ✓ Wash toys and stuffed animals regularly.
- ✓ Make sure your children wash their hands before meals, nap time, and bed time.

3. Reduce the risk from lead paint.

Most homes built before 1960 contain heavily leaded paint. Some homes built as recently as 1978 may also contain lead paint. This paint could be on window frames, walls, the outside of your house, or other surfaces. Tiny pieces of peeling or chipping lead paint are dangerous if eaten. Lead paint in good condition is not usually a problem except in places where painted surfaces rub against each other and create dust. (For example, when you open a window, the painted surfaces rub against each other.)

- ✓ *Make sure your child does not chew on anything covered with lead paint, such as painted window sills, cribs, or playpens.*
- ✓ Don't burn painted wood. It may contain lead.

4. Don't remove lead paint yourself.

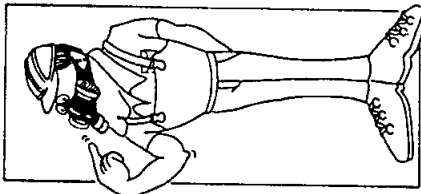
Families have been poisoned by *scraping or sanding lead paint* because these activities generate large amounts of lead dust. Lead dust from repairs or renovations of older buildings can remain in the building long after the work is completed. Heating lead paint may release lead into the air.

- ✓ Ask your local or state health department if they will test your home for lead paint. Some will test for free. Home test kits *cannot* detect small amounts of lead under some conditions.
- ✓ Hire a person with special training for correcting lead paint problems to remove lead paint from your home, someone who knows how to do this work safely and has the proper equipment to

Use of a Respirator

In some parts of the plant you may be asked to wear a respirator to keep the dust out of your lungs.

When respirators are required, it is for your health's sake. Wear the respirator properly—one strap fastened above the ear and one below. Be sure the respirator fits tightly to prevent air leaks around the face seal. Don't take short cuts, follow your employer's respirator program.

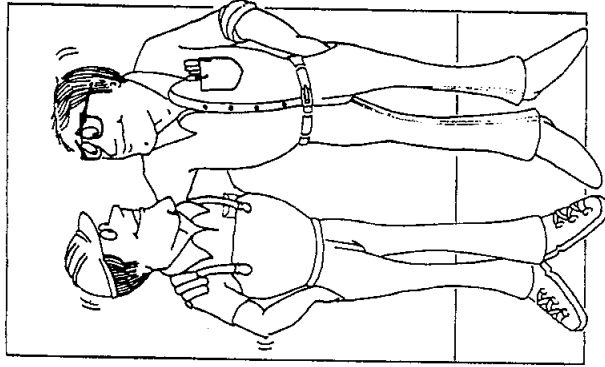
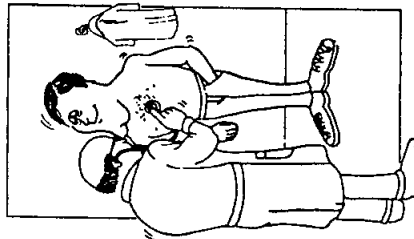


Good Health and You

When the company provides air ventilation equipment, medical programs, good housekeeping standards, protective equipment and training sessions—and you follow the basic health program—the result is sound health protection for everyone.

No one can do it alone. Cooperation is the key to success.

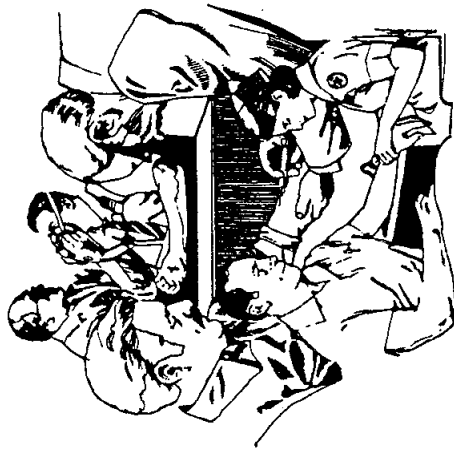
Remember, occupational lead poisoning is easily avoided with all the right precautions.



Cooperation is the key to success!

LEAD AND YOUR HEALTH

TIPS ON OCCUPATIONAL PROTECTION



Overexposure to lead can be dangerous for people who work with the metal.

To avoid overexposure, equipment is often installed to reduce the amount of lead in your work environment, and medical programs created to maintain a constant check on your health.

Government rules prescribe much of what the industry does, but air cleaning equipment and government rules alone may not always protect your health.

It also depends on how well you take care of yourself on the job and how well you follow the recommendations set down to ensure that you and your family stay healthy.

**For Media Inquiries Call:
Lead Media Hotline
1-800-922-LEAD**

Lead Industries Association, Inc.
295 Madison Ave., New York, N.Y. 10017
Tel. (212) 578-4750 • Fax (212) 684-7714

What is Lead Poisoning?

Like most materials, lead can be a poison, if you absorb too much into your system.

Lead can enter your body through your mouth and nose, reach the lungs, stomach or intestines, and then enter the bloodstream. The body excretes lead through feces and urine.

That is a normal process and occurs regularly because minute quantities of lead are always in the food and drink we consume and the air we breathe.

Trouble begins when the amount of lead taken in is greater than your body's ability to excrete and cleanse itself. This increase of lead in the body, if unchecked, can cause illness.

Accumulation of lead in the body greater than normal can cause a range of symptoms from anemia, fatigue, headaches, or weight loss, to constipation. Since these are similar to symptoms you might have with the flu or some other common illness, you might not know that lead is the cause.

If lead were to continue to build up in your body, the end result could be brain damage or even death.

Those extreme effects are not found in modern industry for two reasons:

First, ventilation equipment and health protection practices have been designed to prevent overexposure to lead.

Second, the test used to check your blood and/or urine will detect any buildup before it can cause illness.

That is why it is important to cooperate fully in your company's biological monitoring program.

How Are You Exposed to Lead?

In industry, lead gets into the air in two forms: fume and dust.

When the metal is melted at a temperature above 800° F, invisible

fumes containing some lead go into the air and can be inhaled into your lungs. These small particles are easily absorbed into the bloodstream.

Processing can create dust that can also be inhaled. In addition, the dust can get on your hands and clothes, be transferred to your mouth, swallowed and absorbed in your stomach and intestines.

That is why air-cleaning equipment is used, and why it is important to follow good housekeeping practices such as wet sweeping (or use of vacuum cleaners with high efficiency particulate absorption filters). By following good housekeeping practices, you are protecting your own health.

What Can You Do?

The best general rule for self protection is to stay alert to the possibility of the lead hazard.

The precautions you take on the job have a lot to do with keeping you and your fellow workers healthy.

Here's a checklist of good health practices:

- ✓ Wash your hands and face thoroughly before eating.
- ✓ Eat in a designated lunch room, separate from the work area.
- ✓ Keep hands out of your mouth—unseen dust may be on your fingers.
- ✓ Don't smoke in the work area, or put anything that might have dust on it into your mouth.
- ✓ Don't rub your sleeve against your face—remember, what you don't see can be harmful.
- ✓ Help keep the plant as clean as possible.

Keep Your Family Safe

Under no circumstances should work clothes or shoes be taken home.

Work clothes can get dusty. Various means are available to provide a change

of work clothes so that you don't take lead dust home to your family. If you work in a high exposure area, take a shower and shampoo your hair before going home. Follow your company's procedures carefully.

