

Lead in Construction



What This Training Will Cover

- 1. We will cover the following topics:**
- 2. Health hazards of lead**
- 3. How you are exposed to lead**
- 4. Respiratory protection**
- 5. Medical surveillance**
- 6. Engineering controls & work practices**
- 7. How we control your lead exposure**

Health Hazards of Lead

General Health Effects

The result from exposure to lead can cause:

- **Headaches, tiredness and insomnia**
- **Loss of appetite and stomach pain**
- **Pain, weakness or twitching in your muscles**
- **Reduced sex drive and birth defects**
- **Kidney damage**
- **Permanent brain and nerve damage**

Health Hazards of Lead

Effects on Reproduction

Lead is especially harmful to the fetus in a pregnant woman.

Lead is also harmful to men or women trying to have kids.



Health Hazards of Lead

Effects of Lead on Children

Children are very susceptible to effects of lead.



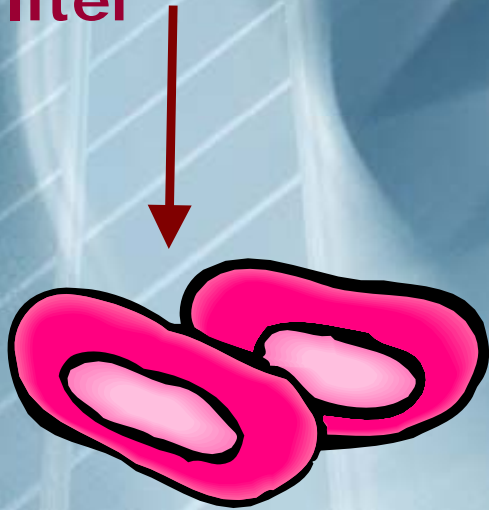
The amount that can harm them is much less than adults.



It is important not to take any lead dust home on your clothing.

Health Hazards of Lead

In your blood: no more than 40 milligrams per deciliter



Red Blood Cell

&
OR

In the air: no more than 50 micrograms per cubic meter

Lead Exposure

How can lead get in your body?

Inhaling lead dust or lead spray paint,

Injection or being cut by
lead material.



Inhaling lead fumes from
welding or burning lead paint,



Swallowing lead dust on your hands
from eating, drinking or smoking.



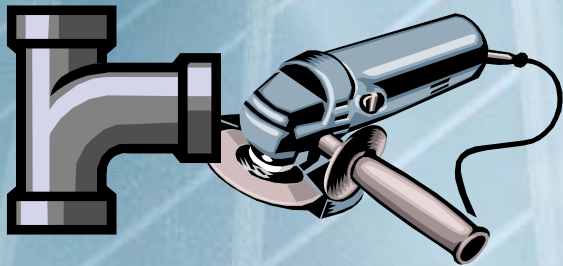
Lead Exposure

Some Jobs Where You Could be Exposed to Lead While Working at OCP

Removing lead-based paint on old buildings.



Installing lead board in radiological rooms ie hospitals & medical offices



Grinding or cutting on metal

Lead Exposure

The following products used or items found on worksites that may contain lead:

- 1. Lead Board for x-ray rooms**
- 2. Pipes from older buildings**
- 3. Paint from older buildings**

Lead Exposure



You may be exposed to lead at jobsites in the following activities or locations:

1. During the installation of lead board.
2. If other contractors on site are cutting or ripping out old piping.
3. If other contractors are sandblasting or removing older paint.

Although OCP employees will not abating lead materials in any form it is possible other contractors may. If you have question to the materials call a safety director immediately. OCP is not assured for Lead abatement.

Personal Protective Equipment

What protective equipment is needed?

coveralls



work shoes



gloves



A respirator - if the amount in air exceeds the legal limit



Respirators

Type of Respirators for Lead

In many construction jobs involving lead, you must wear a respirator.

The type of respirator worn depends on the amount of lead in the air.

You will be provided with the following type of respirator:

[List or describe respirators used here]



Respirators

Using Respirators

Respirators must be worn at all times when the amount of lead in the air is above the legal limit.

Respirators must fit properly to prevent leaks.

You must have a respirator medical evaluation before you wear a respirator.



Respirators

Respirators Must Fit Properly

You must have a respirator fit-test before you wear a respirator.

You can't have a beard when you wear a tight-fitting respirator.

We will train you on how to use your respirator.



Medical Monitoring

What medical monitoring is needed?

Anyone who is exposed to lead above the **“action level”** must be provided blood tests.

Action Level is 30 micrograms per cubic meter

If the amount of lead in your blood is more than 40, we will send you for a medical exam.

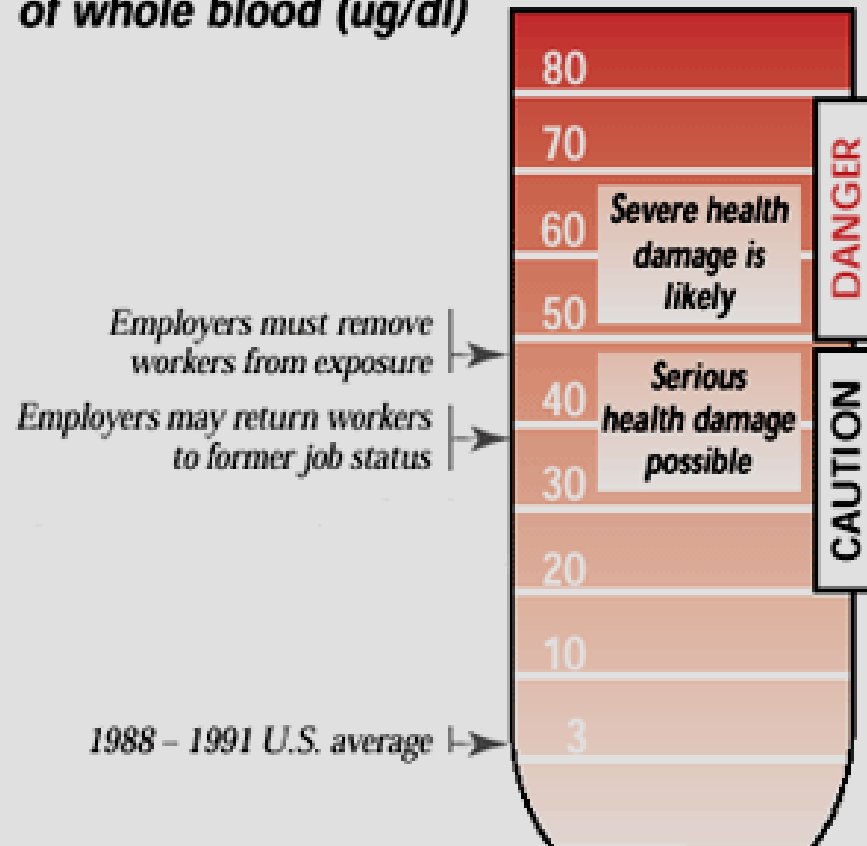
Blood tests will be routinely done if you are exposed to lead for 30 or more days per year.



Lead in the Blood

Allowable Blood Lead Levels

**Micrograms of lead per deciliter
of whole blood (ug/dl)**



**NO AMOUNT OF LEAD IS
COMPLETELY SAFE.**

Medical Removal

Medical Removal for Lead Exposure

If the amount of lead your blood is above 50, you will be temporarily removed from the lead job.

You can't return to that job until your blood level drops below 40.

Your blood must be tested monthly until the lead level drops below 40.



Work Practices

Work Practices to Reduce Lead Exposure

There are several ways you can reduce your lead exposure:

Always wear your respirator,



Don't eat, drink or smoke in the area where there is lead,



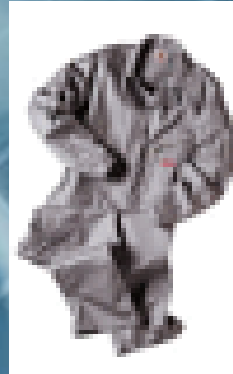
When you take a break, wash your hands before eating, drinking or smoking.



Work Practices

Work Practices to Reduce Lead Exposure

Use separate work clothing,



and boots,



**Keep your street clothing in
a clean place,**



**Don't wear your work
clothing or boots home,**

Work Practices

Work Practices to Reduce Lead Exposure

Don't remove dust by blowing down or shaking out your clothing.



Take a shower at the end of the shift when required.



Work Practices

What are some other work practices?

Don't dry sweep or blow down dust containing lead,



Use a high-efficiency vacuum instead.



Use water when grinding, sanding or cutting objects with lead,



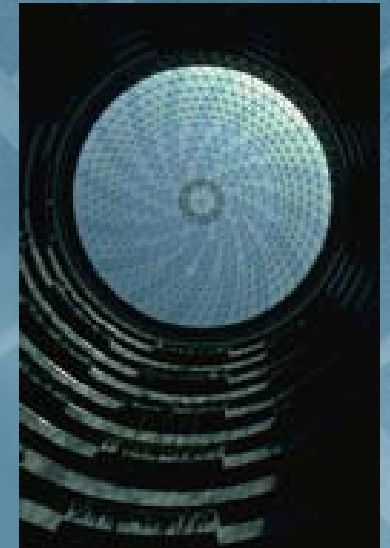
Controlling Lead Exposure

Other Methods of Controlling Lead Dust

Natural or exhaust ventilation can reduce lead levels in buildings or confined areas.



or



Exhaust fan

Some grinders and sanders have exhaust ventilation attached.



Controlling Lead Exposure

What else we do to reduce your lead exposure

OCP has tested the following procedure and have found a negative assessment through historical data while installing lead board.

1. Use a utility knife to score board.
2. Ensure the wall being hung has a drywall or other hard service on the back side of the wall.
3. If roto-zip is to be used make cuts with board standing in position so any dust fall in to stud cavity and creates a shield to the employee's breathing zone.
4. There shall be no sanding of edges of the board.



Wear gloves to prevent lead from cutting into skin during placement of the board.

back

6. Use Heppa Vac to clean up²² dust and debris after work

Lead Chelation

What is lead chelation?

“Chelation” is the taking of certain drugs that help rid the body of lead.

It is a form of treatment for high lead levels in the body.

It is not allowed on a routine basis.

Only a doctor can authorize and supervise lead chelation.



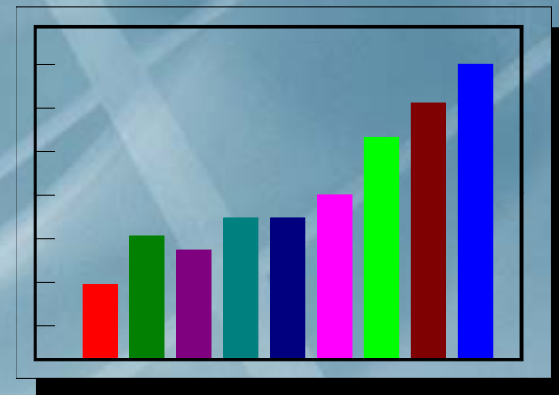
Records

Medical and Air Sampling Records

You have the right to see any of your medical records related to lead.



You also have the right to see results of air sampling for lead.



Installing Lead Board



- There will be a wash station for employees to wash up before breaks and leaving at the end of their shifts.
- Employees will be required to wear gloves, tyvek suits, and work boots.
- Employees must be trained in this program and have past the test to conduct work.
- Employees may not sand any part of the board during installation.
- Employees will throw away tyvek suits and gloves in a trash container located near the installation process and be sealed at the end of each shift. Trash pick up shall be called into the safety director and disposed of properly off site.
- Employees may be required to give blood samples before, during, and after the task for future data collection.
- OCP will monitor the air on job sites to ensure yearly data is collected or when employees request testing beyond the historical data collection.