

# Draft Adult Blood Lead Clinical Treatment Guidelines for Minnesota

## Occupational Exposure

### Venous result 0-9.9 ug/dL

Unexposed/normal level.

### Venous result 10.0-39.9 ug/dL

Acceptable level for long-term exposure.

- Above 25 Fg/dL - review work habits, compare with levels of co-workers.
- OSHA requires a blood lead and zpp.
- Retest in six months.

### Venous result 40.0-49.9 ug/dL

Close observation and follow-up indicated.

- Consider plant inspection to clarify and solve problem.
- Re-evaluate work habits.
- Check blood pressure.
- Check BUN, CBC, Creatinine, UA and liver enzymes.
- Retest in one month.

### Venous result 50.0-59.9 ug/dL

Remove from exposure.

- Per OSHA standard 1926.62 (Construction Industry) remove from workplace until two consecutive results are 40 > ug/dL.
- Per OSHA standard 1910.1025 (General Industry), if the average of the last three tests; or the last six months worth of blood lead test results are greater than or equal to 50 ug/dL—remove from workplace until two consecutive results are 40 > ug/dL.
- Re-evaluate work habits.
- Check blood pressure.
- Check renal function.
- Check BUN, CBC, Creatinine, UA and liver enzymes.
- Retest ASAP (48 hrs. - 1 week).

### Venous result 60 > ug/dL

Remove from exposure.

- Remove from workplace until two consecutive results are 40 > ug/dL (OSHA standards 1926.62 and 1910.1025).
- Re-evaluate work habits.
- Check blood pressure.
- Check renal function.
- Check BUN, CBC, Creatinine, UA and liver enzymes.
- Retest ASAP (48 hrs. - 1 week).
- Chelate if symptomatic (if venous- confirmed).

## Ongoing/Hobby or One-Time/Point Exposure

### Venous result 0-9.9 ug/dL

Unexposed/normal level.

### Venous result 10-39.9 ug/dL

Acceptable level for long-term exposure.

- Careful history of exposure to prevent further exposure.
- Retest in six months.

### Venous result 40.0-49.9 ug/dL

Close observation and follow-up indicated.

- Careful history of exposure to prevent further exposure.
- Identify and control the lead source.
- Check blood pressure.
- Check BUN, CBC, Creatinine, UA and liver enzymes.
- Retest in one month.

### Venous result 50.0-59.9 ug/dL

Remove from exposure.

- Check blood pressure.
- Check renal function.
- Check BUN, CBC, Creatinine, UA and liver enzymes.
- Retest ASAP (48 hrs. - 1 week).
- Chelate if symptomatic (if venous- confirmed).

### Venous result 60 > ug/dL

Remove from exposure.

- Check blood pressure.
- Check renal function.
- Check BUN, CBC, Creatinine, UA and liver enzymes.
- Retest ASAP (48 hrs. - 1 week).
- Chelate if symptomatic (if venous- confirmed).

- Child is defined as <72 months of age. Guidelines for the clinical treatment of children with elevated blood lead levels are available through the Minnesota Department of Health (MDH).
- Guidelines for public health case management of children are also available through the MDH.



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# Sources of Lead

The most common sources of lead are paint, dust, soil, and water. There are some lead sources that are traditional remedies and cosmetics. Listed below are other more common sources of lead.

## **Occupations/Industries**

Ammunition/explosives maker  
Auto repair/auto body work  
Battery maker  
Building or repairing ships  
Cable/wire stripping, splicing or production  
Construction  
Ceramics worker (pottery, tiles)  
Firing range worker  
Leaded glass factory worker  
Industrial machinery/equipment  
Jewelry maker or repair  
Junkyard employee  
Lead miner  
Melting metal (smelting)  
Painter  
Paint/pigment manufacturing  
Plumbing  
Pouring molten metal (foundry work)  
Radiator repair  
Remodeling/repainting/renovating houses or buildings  
Removing paint (sandblasting, scraping, sanding, heat gun or torch)  
Salvaging metal or batteries  
Welding, burning, cutting or torching  
Steel metalwork  
Tearing down buildings/metal structures

## **Hobbies/Miscellaneous**

*(may include above occupations)*  
Antique/imported Toys  
Chalk (particularly for snooker/billiards)  
Remodeling, repairing, renovating home  
Painting/stripping cars, boats, bicycles  
Soldering  
Melting lead for fishing sinkers or bullets  
Making stained glass  
Firing guns at a shooting range