

Medical Management of Lead Poisoning in Adults

Blood Lead Level (µg/dL)*	Management Recommendations
<5	– No action required
5-9	– Lead education – Discuss possible exposures – Monitor BLL
10-19	– Decrease exposure – Eliminate exposure source for pregnancy – Consider exposure elimination for certain medical conditions
20-29	– Repeat BLL in 4 weeks and remove from exposure if BLL remains ≥20 – Perform annual lead medical exam
30-79	– Eliminate exposure source for all persons – Prompt medical evaluation
≥ 80	– Urgent medical evaluation – Chelation therapy may be indicated

* According to the Occupational Safety and Health Administration (OSHA), the permissible blood lead level for workers in general industry is below 60µg/dL and below 50µg/dL for workers in the construction industry. At these levels, OSHA requires workers to be medically removed from the source of lead exposure. However, OSHA job protections also apply when a licensed health care provider removes an individual from lead exposure, regardless of the blood lead level, due to a lead related problem or medical condition.

For More Information:

OSHA Medical Surveillance Guidelines
[osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10033](https://www.osha-slc.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10033)

Georgia Healthy Homes and Lead Poisoning Prevention Program
dph.georgia.gov/healthy-homes-and-lead-poisoning-prevention

Georgia Occupational Health Surveillance Program
dph.georgia.gov/georgia-occupational-health-and-safety-surveillance-program

For Consultation:

Georgia Poison Center
 Call: 1-800-222-1222
[georgiapoisoncenter.org](https://www.georgiapoisoncenter.org)

Resources:

Medical Management of Adult Lead Exposure
 Kosnett MJ, Wedeen RP, Rothenberg SJ, et al. Recommendations for Medical Management of Adult Lead Exposure. Environmental Health Perspectives. 2007;115(3):463-471. doi:10.1289/ehp.9784.

Lead Toxicity
Who Is at Risk of Lead Exposure?
<https://www.atsdr.cdc.gov/csem/csem.asp?csem=34&po=7>

CSTE: Management Guidelines for Blood Lead Levels in Adults
<http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/OccupationalHealth/ManagementGuidelinesforAdult.pdf>

Adult Blood Lead Epidemiology and Surveillance (ABLES) Publications
[cdc.gov/niosh/topics/ables/publication.html](https://www.cdc.gov/niosh/topics/ables/publication.html)

Recognizing Adult Lead Poisoning for Health Care Professionals



Source: <https://www.istockphoto.com/photos/doctor>



Lead Poisoning Symptoms

The Centers for Disease Control and Prevention (CDC) states that a blood lead level (BLL) of 5 µg/dL or greater can result in lead poisoning. The signs and symptoms generally become more noticeable as BLLs increase and with chronic lead exposure.



Source: [https://en.wikipedia.org/wiki/Lead_poisoning#/media/File:Symptoms_of_lead_poisoning_\(raster\).png](https://en.wikipedia.org/wiki/Lead_poisoning#/media/File:Symptoms_of_lead_poisoning_(raster).png)

Asking about Patients' Occupation

About 90% of adult lead poisonings are caused by occupational exposures. Ask your patients if they or someone they live with works in any of these workplaces or occupations:

- Air conditioning
- Auto repair industry
- Battery manufacturing
- Construction
- Firing range and gunsmithing
- Glass manufacturing
- Law enforcement
- Lead manufacturing
- Painting
- Plastic manufacturing
- Plumbing and pipe-fitting
- Recycling of metal, electronics, and batteries
- Rubber manufacturing
- Shipbuilding
- Solid waste incinerating
- Welding



Source: <http://www.alamy.com/stock-photo.html>

Inquiring about Patients' Living Specifics

The following questions may aid you in identifying sources of exposure:

- Does the patient live in a home constructed before 1978? (The paint and plumbing may contain lead)
- Does the patient live in an inner-city with older rental homes?
- Does the patient live near a lead source, such as a battery recycling center?
- Does the patient live with someone with an identified elevated BLL or who works in a lead-related industry?
- Does the patient cook or store food in traditional ceramic pottery imported from Latin America or Asian countries?
- Does the patient use cosmetics imported from India, the Middle East or West Asia, such as Kohl or Surma?



Source: <https://islamicshop.in/khojati-delux-surma-with-almond-oil.html>