

Traditional Sources of Lead Exposures in Immigrant Populations *for clinicians*

No level of lead in the blood is safe. At low levels, lead exposure may lead to neurodevelopmental problems and at high levels, lead poisoning may be fatal. Immigrant and refugee children are at especially high-risk for lead exposure due to their frequency of living in old housing stock and some traditional practices. This document provides a visual guide for clinicians to use to identify traditional sources of lead exposure in various immigrant populations.

Please note that not *all* listed spices, candy, and plant-based substances will always contain lead; keep them in mind as potential exposure sources given elevated blood lead levels. Furthermore, since new sources of lead are identified over time, this list is not comprehensive.

Common Potential Exposures for all Populations

- Glazed pottery– even if it says lead free.
- Some imported Cosmetics.
- Metal Jewelry.
- Some imported spices and candies.
- Old painted wooden and metal toys.
- Living in old homes with paint chips or lead pipes.
- Contaminated Soil.

For more information on the medical management of lead poisoning, go to:
www.deohs.washington.edu/pehsu/factsheets

For additional questions or guidance, contact the NW PEHSU at 1-800-KID-CHEM or pehsu@uw.edu, or visit our website <http://www.deohs.Washington.edu/pehsu>

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How to Avoid Lead Exposures

In Makeup:

- Avoid imported makeup.
- Look for packaging that says “lead free”, especially for kohl eyeliner.
- Check if it is Environmental Working Group

Verified:

<https://www.ewg.org/ewgverified/products.php?type=makeup>



In Candy

- Avoid imported candy.
- Check with the California Department of Public Health’s Lead in Candy Program:

<https://www.cdph.ca.gov/Programs/CEH/DFDCS/Pages/FDBPrograms/FoodSafetyProgram/LeadInCandy.aspx>

In Spices

- Avoid imported spices.
- Check US FDA’s Import Alerts:

https://www.accessdata.fda.gov/cms_ia/industry_28.html

For more information on general sources of lead in the home and how to mediate them, visit:

<https://www.epa.gov/lead/protect-your-family-exposures-lead#sl-home>

Traditional Potential Sources of Lead Exposure in Latin American Immigrant Populations**

Substance	Use
Alarcon (Azarcon, rueda, Coral, maria luisa, luiga). <i>Lead salts. Red-orange powder.</i>	Treats vomiting (empacho), colic, apathy, and lethargy.
Albayalde or albayaidle. <i>White lead powder.</i>	Treats vomiting (empacho), colic, apathy, and lethargy.
Greta. <i>Lead containing powder. Yellow Powder.</i>	Treats vomiting (empacho), colic, apathy, and lethargy.
Litargirio. <i>Lead oxide powder. Bright yellow powder.</i>	Used as deodorant, foot fungicide, and burn treatment.
Chili and Tamarind*. <i>Spices.</i>	Used in chili-favored candies and powdered seasoning.

Alarcon



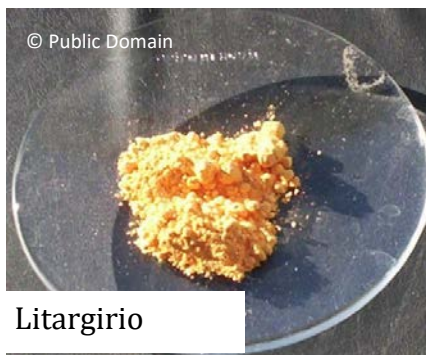
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Chili powder



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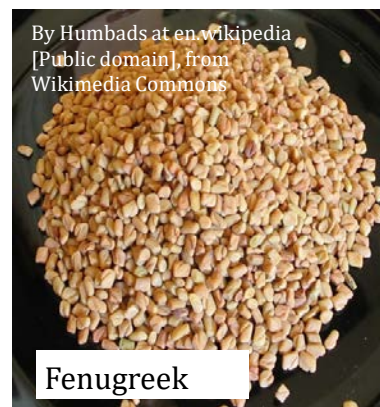
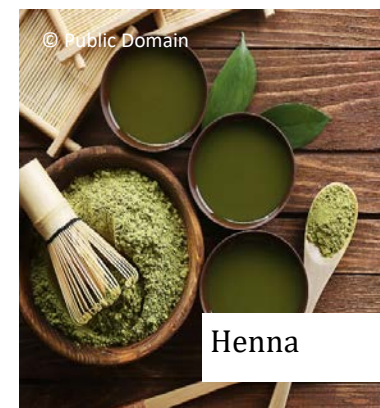


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Traditional Potential Sources of Lead Exposures in Ethiopian and Somalian Immigrant Populations**

Substance	Use
Alarcon, Azarcon, Cora, Liga. <i>Lead salts. Red, orange, yellow spices.</i>	Treats vomiting, colic, apathy, and lethargy.
Bali gali, bala gali, ghasard. <i>Red or brown powder or black, flat bean.</i>	Used as a stomach treatment.
Bint al dahab, bint or bent dahab (zahab). <i>Powder containing lead, cadmium, and antimony.</i>	Treats constipation, colic, and diarrhea.
Farouk. <i>Lead containing powder.</i>	Used for teething powder.
Kandu. <i>Red, lead containing powder.</i>	Used for stomach aches.
Lozena or lozeena. <i>Orange powder.</i>	Treats upset stomachs and used as food coloring.
Pay-loo-ah. <i>Red or orange powder.</i>	Treats rash and fever.
Henna. <i>Powder from henna tree.</i>	Used as hair and skin dye.
Berberere/Beriberi*. <i>Spice containing chili, garlic, fenugreek, ginger, basil, korarima, rue, ajwain, radhuni, and nigella. Typically orange colored.</i>	Used in cooking.
Fenugreek*. <i>Plant in the legume family.</i>	Cleanses stomach.
Kohl. <i>Black powder made from lead or antimony sulfide.</i>	Used as a cosmetic, astringent for eye injuries, eye protection for children, and treats eye infections.

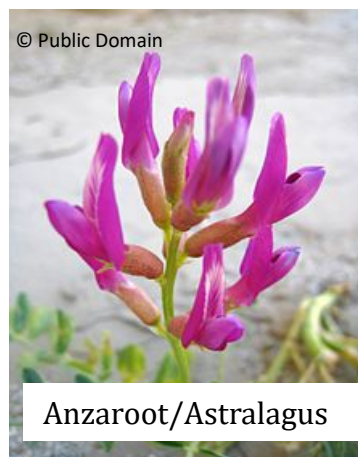


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Traditional Potential Sources of Lead Exposure in Middle Eastern Immigrant

Substance	Use
Al Murrah.	Treats colic, stomachaches, and diarrhea.
Anzroot or Anzaroot*. <i>Herb from the legume family (Astragalus)</i>	Treats stomach problems.
Bint al dahab, bint or bent dahab (zahab). <i>Black powder containing lead, cadmium, and antimony.</i>	Treats constipation, colic, and diarrhea.
Bokhoor (noqd)*. <i>Incense made from scented bricks or woodchips soaked in oil.</i>	Used as a pleasant odor to calm infants.
Cebagin. <i>Lead powder</i>	Used as teething powder.
Farouk or Santrinj. <i>Red or yellow powder.</i>	Used as teething powder.
Henna. <i>Powder from henna tree.</i>	Used as hair and skin dye.
Kohl (Surma, Saott). <i>Black powder made from lead or antimony sulfide.</i>	Used as eye protection for children and as a cosmetic.
Lozena or lozeena. <i>Orange powder.</i>	Treats upset stomachs and used as food coloring.



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Traditional Potential Sources of Lead Exposure in South Asian Immigrant Populations**

Substance	Use
Bali goli/ bali gali, bala gali, ghasard. <i>Red or brown powder or black, flat bean.</i>	Treats upset stomachs.
Deshi Dewa, Koo Sar*. <i>Plant based pills.</i>	Addresses fertility issues, menstrual cramps.
Gugglu, Guggulu*. <i>Herbal supplement from Indian bdellium tree (myrrh). Typically orange, yellow, or brown powder.</i>	Maintains joint and heart health.
Jambrulin*. <i>Ayurvedic herbal medicine.</i>	Controls diabetes and sugar.
Kandu. <i>Red, lead containing powder.</i>	Treats stomach aches.
Kohl (Surma, Saoott), Alkohl. <i>Black powder made from lead or antimony sulfide.</i>	Treats skin infections, used as an astringent for eye injuries, and as a cosmetic.
Kustha, kushta*. <i>Root.</i>	Treats heart, liver, and brain diseases, and stomach aches.
Sundari Kalp, Sundri Kalp*. <i>Herbal supplement containing Ashok Bark, Nagarmotha, sonth, Dhataki, Bala, Dalchini and Kamal Phool.</i>	Treats menopause symptoms and addresses nutritional and stomach disorders.

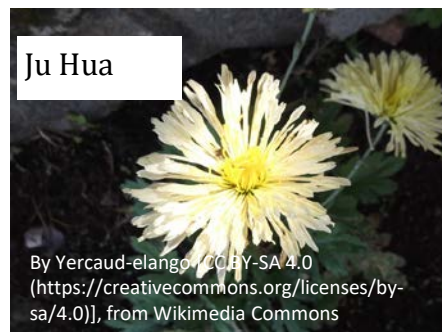


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Traditional Potential Sources of Lead Exposures in East and South East Asian Immigrant Populations**

Substance	Uses
Daw tway. <i>Brown pellet or powder.</i>	Used as a digestive aid for young children.
Ba Bow Sen. <i>Powder.</i>	Treats hyperactivity.
Chuihong tokuwan, Miracle Herb <i>Supplement containing multiple herbs and minerals.</i>	Treats arthralgias, headaches, stiff neck, back pain, and other pains.
Cordyceps or Caterpillar Fungus* <i>Fungi.</i>	Treats and controls hypertension and diabetes.
Hai Ge Fen (Sai Mei An). <i>Clamshell powder.</i>	Treats stomach aches and ulcers.
Ju Hua (Xyoo Fa).* <i>Chrysanthemum flower. Used in tea.</i>	Treats headaches, fever, and dizziness.
Mi Tuo Seng (Litharge, Galena). <i>Mineral powder.</i>	Removes toxins and kills intestinal parasites.
Minium. <i>Red lead powder.</i>	Remove toxins and kills internal parasites.
Pay-loo-ah. <i>Red or orange powder.</i>	Treats rashes and fevers.



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References

- Adult Lead Poisoning from an Asian Remedy for Menstrual Cramps --Connecticut, 1997. (1999). Cdc.gov. Retrieved 12 February 2018, from <https://www.cdc.gov/mmwr/preview/mmwrhtml/00056277.htm>
- Centers for Disease Control. (1989). Morbidity and Mortality Weekly Report (pp. 612-614).
- *Environmental Health Coalition - Lead-free Candy*. (2011). *Environmentalhealth.org*. Retrieved 14 February 2018, from <https://www.environmentalhealth.org/index.php/en/what-we-do/leadfree-candy>
- Gunturu, K., Nagarajan, P., McPhedran, P., Goodman, T., Hodsdon, M., & Strout, M. (2011). Ayurvedic herbal medicine and lead poisoning. *Journal Of Hematology & Oncology*, 4(1), 51. <http://dx.doi.org/10.1186/1756-8722-4-51>
- Hill, S., & Hill, G. (1995). Lead Poisoning Due to Hai Ge Fen. *JAMA: The Journal Of The American Medical Association*, 273(1), 24. <http://dx.doi.org/10.1001/jama.1995.03520250038024>
- Lead Poisoning Associated with Ayurvedic Medications --- Five States, 2000--2003. (2004). Cdc.gov. Retrieved 12 February 2018, from <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5326a3.htm>
- Los Angeles County Department of Health. (2014). TRADITIONAL REMEDIES, COSMETICS, AND OTHER PRODUCTS REPORTED TO CONTAIN LEAD. Los Angeles: LA County DOH.
- Los Angeles County Department of Health. Traditional and Home Remedies Known to Contain Lead. Los Angeles: LA County Department of Health.
- The OC Register. (2004). Toxic Treats. Retrieved from <https://achieve.lausd.net/cms/lib/CA0100043/Centricity/domain/135/pdf%20files/LeadPoster.pdf>
- Oregon Health Authority. (2009). Possible Lead Containing Home Remedies and Cosmetics. Oregon Health Authority.
- Rhodes, A., & Paxton, G. (2015). Immigrant Health Service : Arsenic contamination of traditional Burmese medicines. *Rch.org.au*. Retrieved 12 February 2018, from https://www.rch.org.au/immigranthealth/clinical/Arsenic_contamination_of_traditional_Burmese_medicines_/
- Some Alternative Medicines Native to India May Cause Lead Poisoning. (2011). *Consumermedsafety.org*. Retrieved 12 February 2018, from <http://www.consumermedsafety.org/medication-safety-articles/item/425-some-alternative-medicines-native-to-india-may-cause-lead-poisoning>
- Sundari kalp forte. (2009). *Archive.allayurveda.com*. Retrieved 12 February 2018, from http://archive.allayurveda.com/product_month_november2011.asp
- Working with Refugees from Burma to Prevent Childhood Lead Poisoning. (2010). *Health.ny.gov*. Retrieved 12 February 2018, from https://www.health.ny.gov/environmental/lead/health_care_providers/working_with_refugees_from_burma.htm