



2015 Health Advisory #: 18
Elevated Levels of Arsenic, Lead, and Mercury in Certain Ayurvedic Medications from India

- Certain Ayurvedic medications recently purchased over-the-counter in New York City were found to have elevated levels of arsenic, lead, and mercury as high as 27,000 times the permissible limit.
- Providers should ask patients about their use of Ayurvedic and other alternative remedies or supplements.
- For patients who report using such products providers should consider testing for lead and other heavy metals in consultation with an expert in heavy metal poisoning or the NYC Poison Control Center (PCC).

Please distribute to all clinical staff in Complementary or Alternative Medicine, Emergency Medicine, Family Medicine, Pediatrics, Gastroenterology, Gynecology & Obstetrics, Internal Medicine, Occupational and Environmental Health, and Primary Care.

July 24, 2015

Dear Colleagues:

In May 2015, New York City Department of Health and Mental Hygiene (DOHMH) identified elevated levels of arsenic, lead, and/or mercury in 20 samples of Ayurvedic medications purchased over-the-counter in NYC (see table). The levels of heavy metals found in these medications manufactured in India by *Shree Baidyanath* ranged from being slightly elevated to as high as 27,000 times the permissible limit referenced by the Food and Nutrition Board, Institute of Medicine of the National Academies for certain food additives. The medications sampled could be used for a variety of health-related reasons including addressing digestive health issues, improving female reproductive health, and promoting memory. DOHMH continues to identify lead poisoning cases associated with use of manufactured or handmade Ayurvedic medications that are available by prescription or over the counter. These findings underscore the importance of risk assessment for lead exposure and blood lead testing for at-risk populations.^{1,2}

DOHMH reminds health care providers that the use of traditional, complementary, alternative, and herbal remedies or medications is common. Many patients consult traditional, complementary and alternative medicine practitioners who may prescribe such health remedies. According to the U.S. National Health Interview Survey, more than 40 million adults in the U.S. used herbs and supplements in 2012.³ Individuals who regularly use products found to contain high levels of heavy metals are at an increased risk for adverse health effects. Exposure to lead and other heavy metals can damage the brain, kidneys, and nervous and reproductive systems. We advise individuals to not use products found to contain elevated heavy metals.

¹ Centers for Disease Control and Prevention (CDC). Lead poisoning in pregnant women who used Ayurvedic medications from India--New York City, 2011-2012. *MMWR Morb Mortal Wkly Rep.* 2012 Aug 24;61(33):641-6. PubMed PMID: 22914225.

² Hore P, Ahmed M, Nagin D, and Clark N. 2014. Intervention Model for Contaminated Consumer Products: A Multifaceted Tool for Protecting Public Health. *Am J Public Health* 104(8):1377-83.

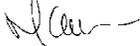
³ Clarke *et al.* 2015. Trends in the Use of Complementary Health Approaches Among Adults: United States, 2002-2012. *National Health Statistics Reports*, No. 79.

Health care providers should:

- 1) Ask patients about their use of prescription and non-prescription medications and supplements, including Ayurvedic and other traditional remedies;
- 2) Advise patients to stop using products listed on the attached table;
- 3) Consider testing patients for exposure to lead or other heavy metals if use is reported;
- 4) Test all children at ages 1 and 2, and older children and pregnant women assessed to be at risk for lead exposure.

For additional information, please visit <http://www.nyc.gov/html/doh/html/environmental/lead-consumer-products.shtml>. Resources for health care providers regarding “Lead Poisoning” and “Mercury Poisoning” are available at <http://www.nyc.gov/html/doh/downloads/pdf/lead/lead-hcp-factsht.pdf> and <http://www.nyc.gov/html/doh/downloads/pdf/lead/mercury-hcp-factsht.pdf>, respectively.

Sincerely,



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Elevated Levels of Arsenic, Lead, and Mercury Found in Certain Ayurvedic Medications, May 2015

Product name	Indications per product packaging or insert	Heavy metal content parts per million (ppm)	Dosage recommended product packaging or insert
Agnitundi Bati	Bitter, stomachic tonic, alterative and stimulant used in indigestion, dyspepsia, neuralgia, lumbago, anaemia, sexual ability and diabetes	9.4 ppm Arsenic 13 ppm Lead 6,500 ppm Mercury	1-2 pills twice a day
Agnitundi Bati	N/A	50 ppm Arsenic 4.7 ppm Lead 17,000 ppm Mercury	2 tablets twice a day
Arogyavardhini Bati	Help maintain proper function of the liver. Help promote healthy digestion and assimilation	13 ppm Arsenic 82 ppm Lead 11 ppm Mercury	2 tablets twice a day
Arogyawardhini Bati (Enriched with Shilajeet & Kutki)	Stomachic, anaemia, hepatitis, obesity, congestion of liver, enlargement of spleen, dyspepsia, skin diseases, worm-infestation	2.7 ppm Arsenic* 16 ppm Lead 5,400 ppm Mercury	1-2 tablets twice a day
Arshoghni Bati	Hemorrhoids (Piles)	5.4 ppm Arsenic 16 ppm Lead 23 ppm Mercury	2 tablets twice a day
Brahmi Bati	Helps promote memory and rejuvenates mind	3.7 ppm Arsenic 7 ppm Lead 2.9 ppm Mercury	2 tablets twice daily
Brahmi Bati (Buddhi Vardhak)	Improves memory, epilepsy, hysteria, and nervous weakness	240 ppm Arsenic 86 Lead 27,000 ppm Mercury	1-2 tablets twice a day
Chandraprabha Bati (Enriched with Loha & Shilajeet)	Genitourinary disorders, diabetes, renal calculi, burning urination	5.1 ppm Arsenic 71 ppm Lead 30 ppm Mercury	1-2 tablets twice a day
Chitrakadi Bati	Help in acute type of indigestion	16 ppm Arsenic 4.7 ppm Lead 4.9 ppm Mercury	2 tablets twice daily
Chitrakadi Bati (Enriched with Yavachar & Hing)	Indigestion, lack of appetite, acidic eructations, gas trouble, griping pain in abdomen	Non-Detected Arsenic* 2.8 ppm Lead 3.1 ppm Mercury	1-4 tablets three times daily
Gaisantak Bati	Digestive formula for Vata	4.8 ppm Arsenic 3.1 ppm Lead 2.5 ppm Mercury	2 tablets twice daily
Kaishore Guggulu	N/A	2.6 ppm Arsenic* 2.4 ppm Lead 0.9 ppm Mercury*	2 tablets twice daily
Kankayan Bati (Gulm)	Specific remedy for gulma, also indicated in flatulence, colic dyspepsia	2.7 ppm Arsenic* 11 ppm Lead 36 ppm Mercury	1-3 tablets twice daily

Product name	Indications per product packaging or insert	Heavy metal content parts per million (ppm)	Dosage per product packaging or insert
Marichyadi Bati	Indicated in all types cough and cold	7.1 ppm Arsenic 3.2 ppm Lead 37 ppm Mercury	3-4 tablets thrice a day
Rajahpravartini Bati	Help balance female reproductive system and ease menopausal transition	99 ppm Arsenic 35 ppm Lead 29 ppm Mercury	2 tablets twice a day
Rajahprawartini Bati (Enriched with Hera Bola & Alua)	Effective in menstrual problems	7.1 ppm Arsenic 23 ppm Lead 23 ppm Mercury	1-2 tablets twice a day
Rajbati (Gandhak Bati) (Enriched with Gandhak & Sonth)	For indigestion, hyperacidity, scabies etc.	Non-Detected Arsenic* 5.6 ppm Lead 12 ppm Mercury	1-2 tablets twice a day
Saptamrit Lauh (Enriched with Mulethi & Lauh)	Ophthalmic diseases, aphonia, hemicrania, epistaxis, deafness	16 ppm Arsenic 22 ppm Lead 33 ppm Mercury	2-4 tablets twice a day
Sariwadi Bati	A specific remedy otitis media	55 ppm Arsenic 470 ppm Lead 120 ppm Mercury	1-2 tablets twice a day
Shankh Bati	Stomachic, carminative and anodyne. Used in indigestion, tympanities and give immediate relief in intestinal colic	5.6 ppm Arsenic 36 ppm Lead 6,400 ppm Mercury	1-2 tablets after meals

Note: The above listed Ayurvedic medications were manufactured in India by *Shree Baidyanath*.

*Below reference limit of 3 ppm for arsenic, 2 ppm for lead, or 1 ppm for mercury in certain food additives. Food Chemicals Codex, Food and Nutrition Board, Institute of Medicine of the National Academies, 5th Edition.