



82
Pb
Lead
207.2

Did you know?

1 in 100 Minnesota children have an elevated blood lead level

Children should be screened for blood lead levels at ages 1 and 2 years old

The Minneapolis/St. Paul areas have the highest percent of elevated blood lead levels relative to the rest of the state

MDH Blood Lead Information System

What is Lead Poisoning?

- Lead is poisonous to us when particles are ingested or inhaled via dust and fumes, or if the food and water we eat/drink contains lead.
- No amount of lead is safe for our bodies.
- The current blood-lead action level for Minneapolis is 5 ug/dl.
- Lead was commonly used in paint until the U.S. banned it in 1978.
- Leaded gasoline used in the U.S. until banned in 1996.

How do I know if lead has affected my children?

Immediate, obvious symptoms or illness may not show. Blood tests are the **most** accurate way to know.

Capillary (finger prick) tests are offered free for children under 6 at various SRC screening events. Venous tests (arm vein) are available through clinics and provide precise readings for more serious cases. Serious cases of lead poisoning can be treated medically.

If a child shows elevated blood lead levels after a capillary test, action must be taken and the child should have a follow-up venous test. The following chart tells when your child needs to have a follow-up venous blood lead test.

| If first test (mcg/dL) is: | Perform a follow-up test within: |
|----------------------------|---|
| 5 – 14.9 | 1 Month |
| 15 – 44.9 | 1 Week |
| 45 – 59.9 | 48 Hours |
| Greater than 60 | Immediately (as an emergency lab test) |

Statistics and information provided by the Minnesota Department of Health
For more information and resources about lead poisoning prevention, visit www.health.state.mn.us/topics/lead

Fairness creams with high lead content

Lead has been used in many fairness creams. These are just a few examples of the creams which have been tested high for lead as well as arsenic and mercury.

1. Pond's White Beauty



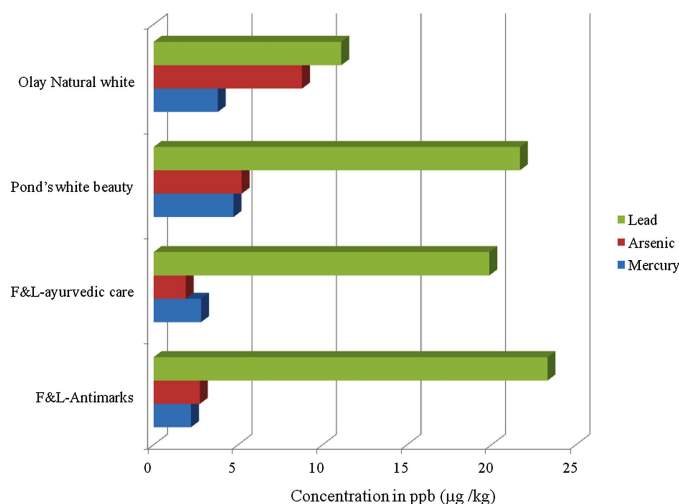
2. Olay Natural White



3. Fair and Lovely: Anti-Marks



4. Fair and Lovely: Ayurvedic Care



Lead Paint in India

Lead is used in most paints in India! Be careful when you go to India, and make sure that you and your children ALWAYS: **wash your hands before you eat and stay away from chipping/peeling paint.** Refer to the final page of this packet to learn more about how to stay safe from lead paint hazards.

A 2017 study found that, **more than 73%** of household paint samples in Delhi had **exceedingly high levels of lead.** In India, only use paint that has a label with Lead Safe Paint® Certification. In 2017, the government limited lead paint to a cap of 90 parts per million; however, **this is still too high.** Any amount of lead is dangerous, and you must take safety precautions.



Lead hazards in Indian products

Indian Candies recalled in 2013 due to high lead content

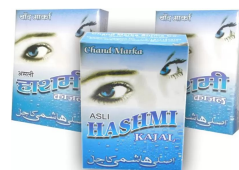
- Hans Brand Santra Candy
- BAVAN Brand Sugar Rewari
- BAVAN Brand Santra Goli and BAVAN Khati Mithi Goli
- HB Rewari Gur-Flat (Jaggery Candy)
- Hans Sugar Rewari
- Jyoti Indian Sweets
- Laxmi Brand Rewadi (Jaggery)
- Punjab Bazaar Rewari Gur Jaggery & Punjab Bazaar Sweet Rewdi
- Shah's Deer Brand Revdi (Gud) (Sesame Candy) and Shah's Deer Revdi (Sesame Candy)



Many samples of the following products have been found to contain lead:

- Kumkum/sindoor
 - A recent study tested the lead content of kumkum samples found at many different local stores in New Jersey and found that about 80% of the samples had lead in it.
 - How to safely handle:
 - Always wash hands after using kumkum
 - Never use kumkum in food
 - Keep away from children
- Turmeric
 - 2016 recalled brands include:
 - Spice Select
 - Market Pantry
 - Gel
 - Clear Value
 - Lieber's
 - Spice Supreme
 - Turmeric produced in the U.S goes through FDA inspection so it is safer to buy turmeric from U.S brands than foreign brands.
- Surma/kohl/kajal
 - Products found with lead include:
 - Hashmi Surma Special, made in Pakistan
 - Hashmi Kajal, made in Pakistan
 - Hashmi Kohl Aswad, made in Pakistan
 - "Pure Kohl From the Waters of ZamZam"

NOTE: Select products from these brands were recalled in 2016 but if you buy products from these brands now, there is no reason to suspect that they have a high lead content.



How to make your own turmeric

The only way to be 100% sure that your turmeric powder is safe is to make it yourself. There are many simple recipes you can find online.

One way to make turmeric is:

1. Buy dried turmeric root
2. Put it in freezer (for about one full day or more to ensure it is completely frozen)
3. Take the turmeric out of the freezer and directly put it in a blender (make sure it doesn't thaw before you put it in the blender)
4. Store the powder in a jar with a tight fit lid and you are finished!



Holi Colors

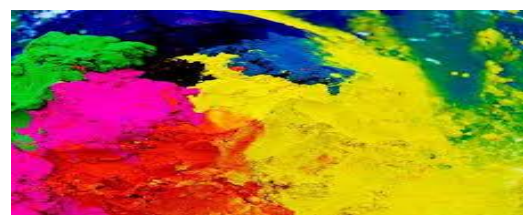
The colors used to make Holi powders have been found to have lead and many other dangerous chemicals in them. This year, buy natural, organic powders for Holi. However, the best option is to make your own holi powders because you know for sure that there are no harmful chemicals added.

How to make Holi colors:

Mix any of the following with flour and you are done!



- Pink- Dried and powdered rose petals are commonly used to make pink colored powder.
- Red- Beetroot powder is great to make a magenta red color
- Green- dried and powdered leaves are good for green. Henna, coriander and spinach are good options.
- Yellow- any most powdered pulses make a good yellow however turmeric is the best.



Ayurvedic Medicine

- A recent study found that one out of every five Ayurvedic medicines purchased online have unsafe levels of lead in them. This includes Ayurvedic medicine:
 - Made in the U.S or another country
 - Sold on a U.S website or another country's website
 - Labeled to have good manufacturing practices or not
 - Labeled "lead free" or "lead safe"
- Ayurvedic medicine labeled as "rasa shastra" is more likely to have high lead content than those without this label because rasa shastra is intentionally adding metals with herbs.

IMPORTANT NOTE:

- Show your health care provider any Ayurvedic medicines you are taking, including the labels.
- Understand the ingredients of any herbal medicines you take, and make sure you know that the product does not contain lead, arsenic or mercury. This information is not included in the label so know that these dangerous ingredients can still be present, even if the label doesn't say so.
- Mercury has antibiotic properties, so be particularly suspicious of ayurvedic medicines that are antibiotic because they are more likely to have mercury, and mercury will cause many greater health issues
- Be especially careful about any medications given to young children and pregnant women.
- Remember: These products are often produced without regulations and don't include all pertinent safety information on the labels.
- Talk to your health care provider about the herbs or Ayurvedic medications you are taking.
- The New York City Health Department has a database including information about all the products they have tested and if they have any dangerous materials in them. This is not necessarily the same for products sold in Minnesota but it is a helpful reference database (link below).

<https://data.cityofnewyork.us/Health/Metal-Content-of-Consumer-Products-Tested-by-the-N/da9u-wz3r/data?inDatasetSearch=true#>

Examples of Ayurvedic products with lead

Table 3. Ayurvedic Medicines Containing Detectable Lead, Mercury, or Arsenic

| Product Name | Manufacturer | Web Site Supplier (Country) | Rasa Shastra Medicine | Metal Concentration, µg/g ^a | | |
|---|---|--|-----------------------------|--|---------|---------|
| | | | | Lead | Mercury | Arsenic |
| US-Manufactured Ayurvedic Medicines | | | | | | |
| Prana–Breath of Life | Ayurherbal Corporation | By the Planet (USA) | | 9.0 | 24.5 | ND |
| AyurRelief | Balance Ayurvedic Products ^b | Balance Ayurvedic Products (USA) | | 5.5 | ND | ND |
| GlucoRite | Balance Ayurvedic Products ^b | Balance Ayurvedic Products (USA) | | 6.0 | ND | ND |
| Mahasudarshan | Banyan Botanicals ^{b, c} | The Ayurvedic Institute (USA) ^c | | 8.5 | ND | ND |
| Kanchanar Guggulu | Banyan Botanicals ^{b, c} | Banyan Botanicals (USA) ^{b, c} | | 7.5 | ND | ND |
| Shilajit | Banyan Botanicals ^{b, c} | Banyan Botanicals (USA) ^{b, c} | X | 10.5 | ND | ND |
| Acnenil | Bazaar of India ^b | By the Planet (USA) | | 3.0 | ND | ND |
| Energize | Bazaar of India ^b | Bazaar of India (USA) | X | 8.5 | ND | ND |
| Hingwastika ^d | Bazaar of India ^b | Herbal Remedies USA (USA) | | ND | 34.5 | ND |
| Bakuchi | Bazaar of India ^b | By the Planet (USA) | | 3.0 | ND | ND |
| Brahmi | Bazaar of India ^b | By the Planet (USA) | | 6.5 | ND | ND |
| Chairata | Bazaar of India ^b | By the Planet (USA) | | 6 | ND | ND |
| Cold Aid | Bazaar of India ^b | By the Planet (USA) | | 5.5 | ND | ND |
| Trifala Guggulu | Bazaar of India ^b | By the Planet (USA) | | 20.5 | 25.5 | 27.0 |
| Heart Plus | Bazaar of India ^b | By the Planet (USA) | | 7.5 | ND | ND |
| Jatamansi | Bazaar of India ^b | By the Planet (USA) | | 12.0 | ND | ND |
| Kanta Kari | Bazaar of India ^b | By the Planet (USA) | | 20.5 | ND | ND |
| Licorice | Bazaar of India ^b | By the Planet (USA) | | 5.5 | ND | ND |
| Praval Pisti | Bazaar of India ^b | By the Planet (USA) | X | 7.5 | ND | 27.5 |
| Prostate Rejuv | Bazaar of India ^b | By the Planet (USA) | X | 11.5 | ND | ND |
| Sugar Fight | Bazaar of India ^b | By the Planet (USA) | | 7.5 | ND | ND |
| Tagar | Bazaar of India ^b | By the Planet (USA) | | 12.0 | ND | ND |
| Yograj Guggulu | Bazaar of India ^b | By the Planet (USA) | | 17.5 | ND | 10.5 |
| Lean Plus | Tattva’s Herbs ^b | Tattva’s Herbs (USA) | | 6 | ND | ND |
| Neem Plus | Tattva’s Herbs ^b | Tattva’s Herbs (USA) | | 10.5 | ND | ND |
| Indian-Manufactured Ayurvedic Medicines | | | | | | |
| Commiphora Mukul | Unknown | National Institute of Ayurvedic Medicine (USA) | | ND | 47.5 | ND |
| Bacopa Monniera | Unknown | National Institute of Ayurvedic Medicine (USA) | | 6.0 | ND | ND |
| Yogaraj Guggulu | Unknown | National Institute of Ayurvedic Medicine (USA) | | ND | 160 | ND |
| Ezi Slim | Goodcare Pharma | AllAyurveda.com (India) | | 3.0 | ND | ND |
| Ekangvir Ras | Baidyanath ^e | Bdbazar (USA) | X | 25 950 | 20 800 | ND |
| Agnitundi Bati | Baidyanath ^e | Bdbazar (USA) | X | 130 | 28 200 | ND |
| Brahmi | Baidyanath ^e | AllAyurveda.com (India) | | 6.0 | ND | ND |
| Amoebica | Baidyanath ^e | Bdbazar (USA) | | 11.0 | ND | ND |
| Arogyavardhini Bati | Baidyanath ^e | Bdbazar (USA) | X | 125 | 13 050 | ND |
| Vital Lady | Maharishi Ayurveda ^b | Maharishi Ayurveda USA (USA) | X | 5.5 | ND | ND |
| Worry Free ^d | Maharishi Ayurveda ^b | Maharishi Ayurveda USA (USA) | X | 7.0 | ND | ND |
| Ayu-Arthri-Tone | Sharangdhar Pharmaceuticals | AYU (USA) | X | 63 | ND | ND |
| Ayu-Hemoridi-Tone | Sharangdhar Pharmaceuticals | AYU (USA) | X | 2.5 | ND | ND |
| Ayu-Leuko-Tone | Sharangdhar Pharmaceuticals | AYU (USA) | X | 33 | ND | ND |
| Ayu-Nephro-Tone | Sharangdhar Pharmaceuticals | AYU (USA) | X | 340 | ND | ND |

^aReported metal concentration is the mean of 2 measurements. If one measurement was below the detection limit and the other at or above the limit, the reported concentration is the mean of the latter measurement and 0. Measurements below x-ray fluorescence spectroscopy reporting levels (lead, ≥ 5 µg/g; mercury, ≥ 20 µg/g; arsenic, ≥ 10 µg/g) are expressed as not detectable (ND). A list of Ayurvedic medicines without detectable metals, their manufacturers, and their Web suppliers is available from the authors.

^bManufacturer claims Good Manufacturing Practices or testing for metals.

^cUS company is a member of the American Herbal Products Association.

^dLabel specifically recommends pediatric use.

^eIndian company is a member of the Ayurveda Drug Manufacturers' Association.

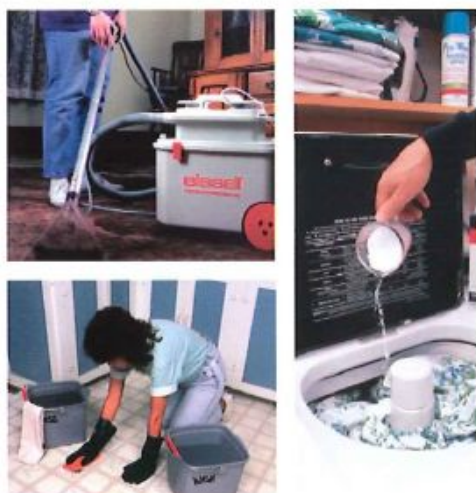
Steps To Help Lower Your Child's Blood Lead Level

STEP 1 Regular Washing



- Wash your child's hands often with soap and water. Make sure hands are clean before meals, snacks, naps and bedtime.
- Keep your child's fingernails trimmed.
- Wash your child's toys, pacifiers, and bottles often with soap and water.
- If you come in contact with lead at your job be sure to shower, wash your hair, and change work clothes and shoes before coming into the house.
- Wash any clothes that have come in contact with lead separately from other family clothes.

STEP 2 A Safer Home



- Wet wash your home often – especially window sills and wells.
- Do not use your regular household vacuum cleaner to pick up paint chips or dust that contains lead.
- Place washable rugs at each entrance to the home. Wash rugs separately from other items.
- Take your shoes off before coming into the home.
- Shampoo carpets often.
- Cover bare soil in your yard with sod, wood chips or other ground cover.
- Learn how to safely make home repairs on homes built before 1978. Never dry-sand, dry-scrape or use a heat gun to burn old lead-based paint. Call the Minnesota Department of Health at 651-201-4620 to learn more.

STEP 3 Eat Healthy Foods



- Have your child eat healthy meals and snacks throughout the day.
- Eat all meals and snacks at the table.
- Don't eat food that has fallen on the floor.
- Feed your child food that is high in calcium, iron and Vitamin C.
- Use only cold tap water for drinking, cooking, and making food or baby formula.
- Do not use home remedies or cosmetics that contain lead.

STEP 4 Medical Care



Children with too much lead in their blood may need to have more blood tests. The tests are to make sure that the lead is leaving the body. It is very important that you keep all of the medical appointments, and follow your doctor's instructions. Your doctor will also talk to you about other things you can do to help lower the amount of lead in your child's blood.

The Healthy Diet That Combats Lead

Foods rich in **Calcium**, **Iron**, and **Vitamin C** help children's bodies fight the absorption of **lead**.

Calcium



Iron



Vitamin C

