Arsenic (Inorganic)

Why am I being warned about potential exposure to inorganic arsenic?

- Arsenic (inorganic arsenic compounds) is on the Proposition 65 list because it can cause cancer. Exposure to inorganic arsenic compounds can cause cancer of the lung, bladder, and skin. This exposure may also cause cancer of the liver, prostate, and kidneys.

- Arsenic (inorganic oxides) is on the Proposition 65 list because it can cause birth defects or other reproductive harm. Exposure to inorganic arsenic oxides during pregnancy may affect the development of the child.

- Proposition 65 requires businesses to determine if they must provide a warning about exposure to listed chemicals.

What is arsenic?

- Arsenic is a naturally occurring chemical element in the Earth’s crust that can be in different forms. Inorganic arsenic is more harmful than the organic form of arsenic.

- Arsenic compounds were used extensively as pesticides and wood preservatives, but these uses have been mostly phased out.

Where can inorganic arsenic be found?

- Some drinking water. California limits the amount of arsenic allowed in publicly supplied drinking water.

- Some plant crops, including rice grown in soil with elevated arsenic levels, which can absorb arsenic.

- Some shellfish and seaweed (especially hijiki, a short, black, noodle-like seaweed), which can take up inorganic arsenic from contaminated water.

- Some herbal medicines and other traditional remedies, especially from China and India.

- Tobacco smoke.

- Some preservative-treated wood used in some older outdoor wooden structures, decks, and outdoor furniture (this use of inorganic arsenic was phased out in the US in 2004). Other uses of inorganic arsenic as a wood preservative may still continue in California.
Some ways you can be exposed to inorganic arsenic:

- Breathing air that contains arsenic
- Consuming food or water that contains inorganic arsenic
- Smoking tobacco or breathing in tobacco smoke
- Touching arsenic-treated wood or arsenic-contaminated soil

How can I reduce my exposure to inorganic arsenic?

- Do not burn arsenic preservative-treated wood or reuse it for home projects.
- Do not smoke. Avoid smoking tobacco around children, and do not allow them to spend time in places where smoke is present.
- Have children wash their hands after they play on or around wooden play structures or decks that have been treated with arsenic preservatives. If you own such a structure or deck, apply a sealant or coating every one to two years.
- Limit contact with soil if you live in an area with a high level of arsenic in the soil. Wash your hands after contact with this soil.
- If you use well water, have it tested for arsenic contamination. If your water comes from a public supplier, it is already tested regularly for arsenic. If you have any concerns, you may wish to check with your water supplier regarding arsenic levels in your water.
- Breastfeed your infant, if you can. If you use baby or infant formula:
  - Be aware that tap water in some areas can be a source of elevated arsenic exposure, especially if it comes from unregulated private wells.
  - Make sure rice is not the only grain ingredient in your child’s formula.
- Vary your child’s diet. Rice tends to absorb arsenic more than other grains do.
- Since rice may contain arsenic, consider cooking it this way:
  - First, boil four cups of water for every cup of raw rice, then add the rice. Boil the rice for five minutes, then discard the water.
  - Next, add two cups of fresh water for each cup of raw rice, and cook the rice with a lid on until the water is absorbed.

- During pregnancy, arsenic can pass from mother to baby.
For more information:

**General Fact Sheets and Resources**

- California Environmental Protection Agency (CalEPA) Department of Toxic Substances Control (DTSC)
  - Treated Wood Waste (TWW)
- Biomonitoring California
  - Arsenic
    - [https://biomonitoring.ca.gov/chemicals/arsenic](https://biomonitoring.ca.gov/chemicals/arsenic)
- US Food and Drug Administration (FDA)
  - For Consumers: Seven Things Pregnant Women and Parents Need To Know About Arsenic In Rice and Rice Cereal
  - FDA Makes Available Results from Testing of Infant Cereal for Inorganic Arsenic
- American Cancer Society
  - Arsenic and Cancer Risk
- World Health Organization (WHO)
  - Arsenic
    - [https://www.who.int/news-room/fact-sheets/detail/arsenic](https://www.who.int/news-room/fact-sheets/detail/arsenic)

**Scientific Information on Arsenic**

- California Environmental Protection Agency (CalEPA) Office of Environmental Health Hazard Assessment (OEHHA)
  - Evidence on Developmental and Reproductive Toxicity of Inorganic Arsenic
  - Public Health Goal for Arsenic in Drinking Water
    - [https://oehha.ca.gov/water/public-health-goal/public-health-goal-arsenic-drinking-water](https://oehha.ca.gov/water/public-health-goal/public-health-goal-arsenic-drinking-water)
- US Food and Drug Administration (FDA)
  - Analytical Results from Inorganic Arsenic in Rice and Rice Products Sampling
    - [https://www.fda.gov/media/86074/download](https://www.fda.gov/media/86074/download)

**Proposition 65**

- California Environmental Protection Agency (CalEPA) Office of Environmental Health Hazard Assessment (OEHHA)
  - Proposition 65: Background
    - [https://www.p65warnings.ca.gov/faq](https://www.p65warnings.ca.gov/faq)
  - Proposition 65: The List of Chemicals
    - [https://www.p65warnings.ca.gov/chemicals](https://www.p65warnings.ca.gov/chemicals)
  - Proposition 65: Fact Sheets
    - [https://www.p65warnings.ca.gov/fact-sheets](https://www.p65warnings.ca.gov/fact-sheets)