

TRACE METALS IN PRENATAL SUPPLEMENTS

What you and your patients need to know

Media reports and a new law in California on heavy metals and prenatal supplements may be causing concern with your patients. You can help your patients put this issue into context by understanding why trace elements exist in prenatal supplements, how levels compare to everyday foods, and why prenatal supplements remain essential for healthy pregnancies.

Why do trace elements exist in prenatal supplements?



- Heavy metals occur naturally in soil, water, and air, so very small amounts can be found in many nutrient-dense foods (for example, leafy greens, beans/legumes (which includes beans), whole grains, and cold-water fish). Because prenatal vitamins use mineral ingredients sourced from the earth, those raw materials can also contain trace levels.
 - For example, calcium, which is essential for developing babies' bones, teeth, and other vital organs, is naturally derived and may be associated with very small amounts of lead.
 - Taking adequate amounts of calcium during pregnancy is critical, as inadequate amounts may compromise expectant mothers' bone health and increase the risk of pregnancy complications like preeclampsia.
- Prenatal vitamins are formulated to keep these heavy metal levels as low as possible, though modern tests may still detect trace amounts. A detectable amount doesn't necessarily mean there's a clinical risk; it should be evaluated against established safety thresholds and overall dietary exposure.

What do government and peer-reviewed data show?

A 2023 report by the U.S. Government Accountability Office (GAO) on prenatal supplements showed trace amounts of heavy metals in some tested products “but not in amounts likely to cause a health concern based on metrics used by the Food and Drug Administration (FDA).”¹

A 2025 study on nearly 50 prenatal multivitamin products affirmed these findings, reporting that none of the products tested exceeded United States Pharmacopeia (USP) standard limits for heavy metals in dietary supplements.²

These data show responsible companies adhere to federal safety standards and invest in ensuring heavy metal content is at the lowest feasible levels.

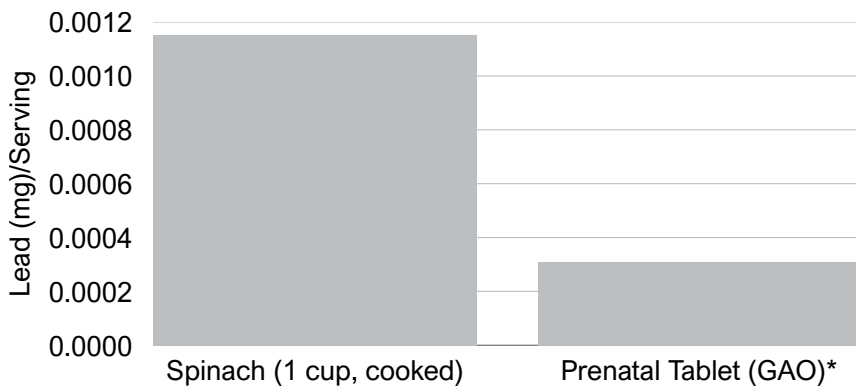


For more information, please visit our website.

[1] Government Accountability Office 2023 <https://www.gao.gov/products/gao-24-106689>

[2] Borgelt et al. 2025 <https://doi.org/10.1016/j.ajcnut.2025.04.013>

Putting the numbers into context



*Highest average amount detected in GAO report.

- Trace amounts of heavy metals occur naturally in many foods and minerals, including those found in leafy greens, legumes, and cold-water fish.
- Prenatal vitamins typically contribute lower levels of heavy metals than many healthy foods recommended during pregnancy.

New California law and its unintended consequences

In California, a recently passed law (SB 646) requires prenatal vitamin manufacturers to test each lot of their products for heavy metals, submit the results to the state upon the state's request, and make those raw test results public on company websites. While intended to increase transparency, these disclosures will be difficult for patients to interpret without appropriate clinical context and may lead to unnecessary concern.



- Without appropriate guidance, there is a risk that patients will either avoid supplements altogether or choose products that have eliminated critical nutrients like calcium, iron, magnesium, and zinc simply to show lower heavy-metal numbers.
- Healthcare providers should be prepared to advise pregnant women about the foods they eat and what they should look for in a prenatal multivitamin.

California Proposition 65 sets conservative heavy-metal limits for dietary supplements, including prenatal vitamins, and compliant manufacturers already operate under strict exposure guidelines. Products exceeding these limits must carry a warning statement.

Helping your patients navigate this issue

- Prenatal multivitamins are not only safe, but they are critical for delivering essential nutrients for both expectant mother and baby during pregnancy.
- Expectant mothers often fall short of recommended intake of minerals (e.g., calcium, magnesium, iron, and zinc) and prenatal multivitamins can help fill this intake gap.
- Trace levels of heavy metals are commonly present in both foods and prenatal vitamins due to natural environmental exposure, with prenatal vitamins typically contributing lower levels than many healthy foods recommended during pregnancy.
- Nutritional adequacy is itself protective: iron, calcium, and zinc compete with lead at the same intestinal absorption sites. Adequacy across these nutrients, including DHA, reduces uptake of and is protective against heavy metals.

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