

# Why are iodine supplements recommended? A pediatrician's view

Excerpted from an interview by the Medscape's Stephanie Cajjal with Heather L. Brumberg, MD, MPH.  
Full interview is available here: <http://www.medscape.com/viewarticle/829448#1>

## **Why do clinicians need to be aware of [iodine deficiency]?**

We know that iodine deficiency in the United States is occurring at least marginally in about one third of pregnant women (1). Also, this deficiency may be compounded by environmental exposures that are ubiquitous: for example, perchlorate, which may take the place of iodide and thus make iodide less available for the thyroid and for breastmilk (2).

## **Which health providers are you targeting with this message?**

The message is targeted to pediatricians and any caregivers of pregnant women, women who intend to become pregnant, and breastfeeding moms—and in theory, even internal medicine doctors. Many different providers come in contact with breastfeeding moms, pregnant women, or women who intend to become pregnant. It's important in preconception health counseling, too.

## **How do you envision providers responding to these recommendations?**

Caregivers of pregnant women, women of reproductive age who are intending to become pregnant, and breastfeeding moms should encourage the use of supplements with adequate amounts of iodine. Also, when patients are using salt, caregivers should encourage them to use iodized salt.

Breastfeeding moms should avoid excess nitrates, which can occur in well water, because it could interfere with the body's handling of iodine. As a corollary, the American Academy of Pediatrics recommend that all well water should be tested for nitrate levels annually to help prevent too high an exposure to nitrate.

Furthermore, tobacco smoke is a source of thiocyanate, which can compete with iodine. So, it's another reason not to smoke and to avoid secondhand smoke. Caregivers

and interested providers should support and advocate for the Environmental Protection Agency's regulation of perchlorate levels in water. And they can support and advocate for the US Food and Drug Administration's (FDA's) correction of the inconsistent and inadequate content of iodine in supplements and inaccurate labeling of such.

## **How common is it for supplements to not be labeled accurately?**

A 2009 study in the *New England Journal of Medicine* (3) looked at the iodine content of prenatal multivitamins and found a lower content than what is actually needed by a pregnant woman or a lactating woman in many of the vitamins tested, as well as a discordance between what was labeled as the amount of iodine vs. what was actually in the vitamin. In addition, 13 of the brands studied had levels of iodine that were discordant by 50% or more, and 10 of those brands had values that were lower by 50% or more.

## **Are physicians not having these conversations with women?**

I think a lot of the recommendations are not being done. Providers should be making the recommendations to avoid the environmental exposures—the nitrates in well water and thiocyanate in smoke. In addition to being aware of the environmental exposures that may affect the uptake of iodine, it is important for providers to counsel women to be aware that supplements need adequate iodine content.

## **Should these recommendations be a part of every consultation?**

Absolutely, because they involve behaviors that could be easily changed. These aren't hard things to incorporate into your life: taking supplements, using iodized salt, making sure your well water is tested, and avoiding tobacco smoke.

## **Could dietary modifications negate the need for supplements?**

It would be difficult to get all of the necessary iodine through diet alone, especially because intake of seafood is encouraged, but in limited amounts during pregnancy. Dairy food, such as cow's milk or yogurt, could help, as well as iodized salt. However, iodine content is not always noted in all foods, making it even more challenging to accurately assess.

Therefore, it's probably safest to have a daily supplement containing adequate amounts of iodine. This would obviously not be an additional supplement besides the prenatal vitamin, but instead should be solely the prenatal vitamin, as long as it contains enough iodine. Even this is difficult, because few supplements contain adequate amounts of iodine and labeling issues persist. But the FDA is moving to correct this.



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## **References**

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