

How to talk about fluoride with patients

Fluoride hesitancy is real and it is only set to increase. Here is some information to help you help your patients make informed decisions about fluoride use.

1. What is fluoride? Fluoride is natural. It is not something that people make in a lab. It is a part of nature and is all around us. It comes from a natural element called fluorine. You can find fluoride naturally in rocks and also in the water in rivers and oceans. We all get a little bit of fluoride every day because it is in the water we drink, the foods we eat, and even some of the fruit and vegetables we buy.

2. Why do we need to use fluoride for caries prevention and control? To keep our teeth healthy, we should eat less sugary foods and drinks and brush our teeth well. But it's very hard to stop cavities just by doing this. Fluoride really likes to stick to the minerals in our teeth. Even with just a tiny bit, fluoride helps make our teeth stronger and fixes initial problems when they start to get weak.

Fluoride made a big difference in keeping people's teeth healthy over the last 50-70 years. A long time ago, our great-grandparents and grandparents had a lot more tooth problems, toothaches, and lost many teeth. Now, thanks to fluoride, lots of kids don't have any cavities by the time they are 12 and adults are keeping their teeth! This big change happened because more people started using fluoride in different ways.

3. I am afraid of the toxic effects of fluoride. It's okay to be afraid of fluoride, but knowing what science says can help us be less scared. Long ago, in a place called Colorado Springs, people saw something interesting. They noticed that some folks had spots and markings on their teeth, but they didn't have cavities. This was because there was fluoride in their drinking water.

When people figured this out, scientists studied how much fluoride was naturally in the water in different places and how it affected teeth and cavities. They found that a certain level of fluoride in the water was very good to protect the teeth and was very safe for use. They also found a way to add just the right amount of fluoride to water that had too little fluoride so it helped prevent cavities while being very safe. The first place to try this was Grand Rapids, Michigan, in 1945.

Some people worry that fluoride can cause other problems like hurting kidneys, thyroids, or even the brain. Scientists have studied these worries and haven't found proof of these concerns.

4. What if there is a reduction in IQ caused by fluoride that is yet to be confirmed? This is a good question! But there is no proof that fluoride is making people less smart. Some people are worried, but there's nothing bad we can really connect that worry to. Use of fluoride in the US, in products or added to water when it is too low, has been proven to be very safe.

So, why are we talking about this? In some countries, like China, scientists looked at kids' thinking skills (IQ) when they drank water with a lot of fluoride, like 5 parts per million (ppm) or more (much higher than what we use in the US when we add it to water, which is less than 1 ppm). They saw that kids with the high-fluoride water sometimes had lower IQs. But there are a few things to remember:

- Water with a lot of fluoride can have other bad stuff in it too, so it's hard to say if fluoride was the problem.
- Such high fluoride levels shouldn't be in drinking water, so the kids in these areas might not have good living conditions, and that could also affect their IQ.
- Most of these studies weren't done very well, and many scientists don't trust the results.
- Big studies from countries like New Zealand and Australia, where water has had fluoride for a long time at similar levels as the US, don't show any problems with IQ.
- Also, scientists haven't found a reason why fluoride would change how smart someone is.

It will take more time and research to really understand this better. Just like other ideas that some people believe online, worries about fluoride will keep popping up. It's easy for people to get scared, but we must remember that we know that fluoride used in the US for a long time is very safe.

5. You mentioned studies in China, but I know about studies in Canada showing a reduction in the IQ of children when mothers were living in areas with water fluoridation. How about those? Great question! There have been some studies in Canada and Mexico looking at whether fluoride in water might affect how smart kids are. In Canada, they found a tiny connection between boys whose moms had fluoride while they were pregnant and lower IQs at age 3, but they didn't find this for girls or all kids together.

Here's why the value of the study is limited:

- They measured fluoride by testing moms' pee only a few times, and pee fluoride levels can change a lot, so it's not a good way to check how much fluoride someone really gets.
- Different people tested kids' IQs in places with fluoride and places without, which might change the results.
- Bigger and better studies in places like New Zealand and Australia looked at how much fluoride people got over their whole life. These studies didn't find any problems with fluoride and kids' IQs.

So far, it seems like fluoride doesn't make kids any less smart, but scientists keep looking to understand what is happening in some other countries with very high levels.

6. If I am pregnant (and/or breastfeeding), should I avoid fluoride? Good news! You don't need to be afraid of fluoride when you're pregnant or breastfeeding your baby. People have used fluoride safely for a long time, and it's important for keeping your teeth healthy. Even when you're having a baby, taking care of your teeth is important because you might get more cavities. So, it's okay to keep using water with fluoride, toothpaste with fluoride, and treatments your dentist suggests.

Now, about breastfeeding—breast milk has less fluoride than the water used to make baby formula, especially if the water has fluoride in it. Parents should remember this when they think about the tiny spots that can sometimes show up on kids' teeth called fluorosis. This happens when teeth are forming, but it's not harmful at mild levels. In fact, mild fluorosis in teeth, that you may not even see, is the only known effect from having fluoride for a long time.

7. I don't want to have any treatments with fluoride. That's okay! We can help you keep your teeth healthy without using fluoride, but you'll need to work really hard at it, and you may still get some cavities. Here's what you can do:

Try to eat or drink very little sugary stuff, like candy or sugary drinks, and if you do try not doing it between your meals. This includes things like bread too. You can use foods with sweeteners because they don't usually cause cavities.

Make sure you are brushing your teeth at least twice a day and flossing every day. This has to be done well to have a chance to work. Most people have a hard time cleaning well in places where cavities happen. We can help you learn the best way to clean your teeth and check how you're doing at each visit. If we see any signs of cavities, we can change our plan.

Even with these steps, we can't promise you won't get cavities. We are here to help you do your best!

If you change your mind, you might think about using toothpaste with fluoride and just rinse afterward. You do not need to swallow it! We can also put fluoride on your teeth during your dental visit, which helps protect your teeth without you having to swallow it. This only needs to be done every few months. If you want to try these options, just let us know!

8. I am afraid of using fluoride treatments, what is your opinion about it? It's okay to be worried, and I'm glad to help! As someone who works in healthcare, I base my thoughts on what science and dental groups that have carefully looked at science say, like the American Dental Association. These groups think fluoride in water, toothpaste, and dental treatments is good and safe for teeth.

If you have any questions or want to learn more about fluoride and why it's safe, just ask! I'm here to help you understand.