



# Dental Health: Silver Diamine Fluoride FAQ

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Profound disparities exist regarding access to dental care and prevention.<sup>1</sup> The lack of affordable and accessible dental care has given rise to extremely poor dental health outcomes throughout the United States.<sup>2</sup> Tooth decay has a negative impact on the general health of children and can have lingering consequences into adulthood.<sup>1</sup> Prevention and arrest of dental disease is essential for health and wellness throughout the lifespan. One method to prevent tooth decay is the use of fluorides.<sup>3</sup> Fluoride can be applied topically, added to municipal water or toothpaste, or swished.

Silver diamine fluoride was approved by the FDA in 2016 and received a “Breakthrough Therapy Designation” indicating this therapy has the power to address an unmet, serious medical need where there is no available therapy.<sup>4</sup> This product is often recommended for baby teeth and situations where traditional restorative techniques cannot be used or obtained. Silver diamine fluoride can arrest existing decay and provide protection to adjacent teeth without anesthetic or complicated equipment.<sup>5</sup> Although the safety, cost-effectiveness and innovative potential of SDF has been thoroughly researched, consumers and professionals may have questions regarding SDF. This FAQ aims to answer some those questions.

## What does SDF stand for?

Silver Diamine Fluoride

## What is SDF made of?

Silver Diamine Fluoride is made of a combination of silver and fluoride. It is made of 25% Silver - antimicrobial, 5% fluoride – remineralization.<sup>6</sup> The silver kills the bacteria, while the fluoride creates a protective coating that hardens the tooth.

## What are the positives of SDF?

- Quick, easy, and painless to apply.
- Can prevent or delay more invasive treatment.
- It is very effective.

## What are the negatives of SDF?

- It will stain decayed areas of tooth black.<sup>6</sup>
- Decayed areas (holes) that trap food may still require a filling.
- It is not advised for deep or large decay areas.<sup>9</sup>
- Some decayed areas may not respond and continue to grow.

## How do you apply SDF?

Basic steps: apply Vaseline to the lips and around mouth surface. Surround the tooth with gauze or cotton rolls to keep it dry. Next, use an application brush to paint the SDF onto the tooth, wait 1-2 minutes for it to dry, then rinse with water.

## How long does the treatment take?

The treatment can be completed within a couple of minutes. Additional applications are recommended to ensure the decay is arrested or stopped.<sup>6</sup>

## How many teeth can be treated at one time?

Five teeth can be treated at one time.<sup>10</sup>

## Does it taste bad?

It has a metallic taste, but only for a second.

## Can you eat or drink after getting SDF?

Yes, but it is recommended to wait 30 minutes to 1 hour.<sup>10</sup>

## Is SDF 100% effective?

Studies show it is 81% effective with one application and 70-90% effective when applied twice.<sup>6,7,8</sup> Since SDF is not 100% effective for all teeth in all circumstances, it is still necessary to seek regular dental care from a dentist.<sup>11</sup>

## How does SDF protect other teeth?

Silver diamine fluoride kills bacteria and keeps the bacteria from infecting other teeth.

## Will SDF make the whole tooth dark?

Only the decayed areas will turn dark.

## Why does it stain the tooth black?

The silver kills the bacteria. When bacteria die, they become black in color.

## Can anything be done about the black stain?

Yes, a dentist can remove the black stain and put in a regular white filling at any time.

## Does anything else need to be done to the tooth?

The SDF may stop the decay but it will not fill in any holes created by the decay. The hole must be filled in with a regular dental filling or covered with a crown.

## Can SDF be used on all decay?

No. Silver diamine fluoride is not recommended for very deep/large decay areas, anyone with silver allergy, or on adult front teeth unless the staining is not a concern.<sup>11</sup> Other considerations may caution use.

## Will SDF stain clothing if accidentally spilled?

Yes, it will permanently stain clothing and may stain other surfaces.

## Will SDF stain skin?

Every effort is made to prevent SDF from getting on clothes and skin. If an accident does happen, the discoloration of the skin will fade away in 3–5 days.<sup>11</sup> It will look like a marker or ink stain on the skin.

## Will regular fluoride be used in addition to SDF?

Yes, often SDF is placed first followed by an application of fluoride varnish to hold the SDF in place.

## Why is SDF a great option for young children?

Silver diamine fluoride is a great option for young children because it can stop the growth of the decay until the child is comfortable with getting a traditional filling or the tooth falls out on its own.

## Why haven't I heard of SDF before?

Silver diamine fluoride was approved by the FDA in 2014 for sensitive teeth and in 2016 for decay.<sup>2</sup> Silver diamine fluoride has been in used in other countries for more than 80 years.<sup>12</sup>

## Is SDF treatment only for children?

No, SDF treatment can be used on adults and children. However, some adults prefer a traditional filling because the SDF will discolor the decayed areas of the tooth dark brown or black.

## What is the difference between fluoride varnish and silver diamine fluoride?

Fluoride varnish is used as primarily to *prevent* decay before it starts. Silver diamine fluoride is used to help stop the progression of cavities.

## Are there any risks in the SDF treatment application?

Silver diamine fluoride is considered very safe.<sup>2</sup>

## Why should I choose SDF over a regular filling?

Even though SDF stains the tooth it may be preferred to avoid anesthesia or IV sedation. It is a non-invasive treatment that protects the teeth from further damage while avoiding some negative aspects of a traditional dentistry.

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