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**Fluoride Facts and Supporting
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**20 Common Questions About
Fluoride (Patient FAQs)**

Fluoride Facts and Supporting Scientific Evidence

20 Common Questions About Fluoride

Fluoride Facts and Supporting Scientific Evidence

Dental caries is one of the most prevalent diseases in humans, affecting 97% of the population worldwide during their lifetime.

What can you do to help reduce the risk of caries?

To reduce the risk of caries (tooth decay), the American Dental Association (ADA) recommends focusing on good oral hygiene, diet, and professional dental care. This includes brushing twice daily with fluoride toothpaste, flossing daily, limiting sugary foods and drinks, and seeing a dentist regularly for checkups and cleanings.

Is fluoride safe?

The use of topical fluoride in appropriate and recommended forms and with appropriate dosages is considered safe.^{1,2} We carefully formulate all Colgate products to conform to legal and regulatory requirements in all markets where they are sold. Fluoride is in our oral care products because it's safe, and proven to help strengthen teeth and prevent cavities. You only need a small amount of fluoride in both toothpaste and mouthwash to get its many benefits.

Over the counter topical fluoride products are formulated with specific concentrations of fluoride that are deemed safe for daily use.³ Higher fluoride concentrations in toothpastes, gels, and varnishes prescribed or applied professionally, are also safe and beneficial when used appropriately.² Extensive research and many clinical studies have demonstrated the efficacy and assessed the risks and established the safety of topical fluoride.
Source: www.aadocr.org/science-policy/topical-fluoride-position-statement

What is the difference between fluoride in my oral care products and fluoride in my water?

Fluoride is a mineral that is found in all natural water sources.¹ Fluoride is the ionic form of the trace element fluorine. Fluorine is commonly found in the environment, and reaches water sources by leaching from soil and rocks into groundwater.

Topical fluorides: Fluoride in toothpastes and mouth rinses helps prevent tooth decay by strengthening enamel and remineralizing early decay. While these products are effective, higher-strength fluoride gels and varnishes can also be used, especially for individuals at high risk of caries, and are professionally applied. The American Dental Association (ADA), American Academy of Pediatric Dentistry (AAPD), and World Health Organization (WHO) have reviewed the extensive clinical research on fluoride and its effectiveness in preventing caries and the appropriate dosages are carefully regulated.

Systemic fluorides: Fluoride may be present in drinking water to help strengthen teeth.

Source: <https://www.ada.org/about/press-releases/community-water-fluoridation-prevents-painful-dental-disease>

What are the benefits of fluoride in toothpaste and other oral care products?

Fluoride helps repair and prevent damage to teeth caused by bacteria in the mouth. Bacteria in the mouth produce acid when a person eats or drinks food that contains sugar. The acid dissolves minerals in a tooth's surface, making the tooth weaker and open to cavities.⁴

Fluoride dental products are effective in preventing cavities in people of all ages. They are regulated as drugs by the U.S. Food and Drug Administration and are safe and effective when used as directed.

Is fluoride a neurotoxin?

Fluoride is naturally present to some extent in certain foods and beverages but the levels vary widely. To help protect teeth from cavities, fluoride is also added to some dental products such as toothpaste.
Source: <https://www.ada.org/resources/community-initiatives/fluoride-in-water/fluoridation-faqs#>

All Colgate products that contain fluoride are safe. They are formulated to comply with legal and regulatory requirements. We continuously monitor and evaluate the safety of our ingredients and actively engage with outside experts and resources to stay up to date on all emerging science and to deepen our knowledge.

All toothpastes with the ADA Seal of Acceptance for cavity prevention must contain fluoride.

A product earns the ADA Seal of Acceptance for Cavity Prevention by submitting clinical studies that demonstrate the safety and efficacy of the fluoride toothpaste for caries prevention.

Source: www.ada.org/resources/ada-library/oral-health-topics/toothpastes



Fluoride Facts and Supporting Scientific Evidence

Professional In-Office and Take-Home Products

What are the benefits of professional fluoride products?

The ADA Center for Evidence-Based Dentistry and a panel of experts convened by the ADA Council on Scientific Affairs developed clinical recommendations for use of professionally applied or prescription strength,home-use topical fluorides for caries prevention in patients at high risk of developing caries.

The Panel also determined that patients at low risk of developing caries may receive additional benefit from application of topical fluorides beyond that achieved from their daily use of over-the-counter fluoridated toothpaste and consumption of fluoridated water.

Source: www.ada.org/resources/ada-library/oral-health-topics/fluoride-topical-and-systemic-supplements

Prescription strength toothpaste

The World Health Organization (WHO) promotes fluoride toothpaste as a key strategy for dental caries prevention. The WHO recommends using high-fluoride toothpaste (5000ppm) for individuals at high risk of caries, root dentine caries, or in supervised community settings. These high-fluoride toothpastes are often regulated as drugs and require a prescription.

Source:cdn.who.int/media/docs/default-source/essential-medicines/2021-eml-expert-committee/applicationsfor-addition-of-new-medicines/a.14_fluoride-toothpaste.pdf

Is prescription strength toothpaste suitable for children? Yes, 5000 ppm toothpaste is indicated for children 6 years and older that are at high risk of caries. Supervised use for children under age 12 is recommended to prevent swallowing. Please see the Prescribing Information for more information.

Can patients use prescription strength fluoride toothpaste if their tap water is fluoridated?

Yes, because fluoride in toothpaste should not cause fluorosis with appropriate topical use when used as directed.

Fluoride varnish

An ADA panel recommended application of 2.26% fluoride (5% sodium fluoride) varnish for patients 6 years and older who are at high risk of caries.

<https://www.ada.org/resources/research/science/evidence-based-dental-research/topical-fluoride-clinicalpractice-guideline/>

Mouthwash and mouth rinse

The ADA recommends prescription strength mouth rinse (0.2% neutral sodium fluoride) for caries prevention in patients at elevated risk who are 6 years or older.

Source: www.ada.org/resources/ada-library/oral-health-topics/caries-risk-assessment-and-management

Mouth rinses provide a lower concentration of fluoride exposure compared with gels and varnishes. Prescription mouth rinses may be prescribed for those at high risk of tooth decay.

Source: www.aadocr.org/science-policy/topical-fluoride-position-statement

Fluoride occurs naturally in the foods & drinks we consume



F- = 2.02 ppm



F- = 1.05 ppm



F- = 3.73 ppm



F- = 0.55 ppm



F- = 0.69 ppm



F- = 1.66 ppm

Source: USDA National Fluoride Database of Selected Beverages and Foods, Release 2

20 Common Questions About Fluoride

Patient FAQs

1 How common are cavities?

According to the American Dental Association (ADA), dental cavities, or tooth decay, is one of the most prevalent diseases in humans, affecting 97% of the population worldwide during their lifetimes¹.

2 What can you do to help reduce the risk of cavities?

To reduce the risk of cavities (tooth decay), the American Dental Association (ADA) recommends focusing on good oral hygiene, diet, and professional dental care. This includes brushing twice daily with fluoride toothpaste, flossing daily, limiting sugary foods and drinks, and seeing a dentist regularly for checkups and cleanings².

3 What is fluoride?

Fluoride is a mineral that is naturally found in soil, water, foods and beverages. It is widely used in dentistry to help prevent tooth decay³.

4 What is the difference between fluoride in my oral care products and fluoride in my water?

Topical fluorides: Fluoride in toothpastes and mouth rinses help prevent tooth decay. Prescription strength fluoride toothpaste, gels and varnishes may also be recommended by your Dental professional if you are at high-risk of cavities.
Systemic fluorides: Fluoride may be present in drinking water to help strengthen teeth.

5 How does fluoride help prevent tooth decay?

Fluoride strengthens tooth enamel by promoting remineralization and making teeth more resistant to acid attacks from bacteria in the mouth. Fluoride is effective at reducing tooth decay and is recommended by dental professionals for both children and adults⁵.

6 What are the main benefits of fluoride in oral care products?

Protecting teeth requires consistent, low levels of fluoride in the mouth (in the saliva and on tooth surfaces). Fluoride can also be incorporated into developing dental enamel before a tooth erupts into the mouth, enhancing the tooth's resistance to acid breakdown and preventing cavities later in life. Fluoride oral care products are effective in preventing cavities. They are regulated as drugs by the U.S. Food and Drug Administration and are safe and effective when used as directed².

7 How safe is fluoride in oral care products for children and adults?

Decades of research and practical experience indicate that fluoride in oral care products, such as toothpaste, rinses, and fluoride varnish is safe and beneficial to oral health⁶.

8 What are the risks of fluoride in oral care products?

Dental fluorosis is a change in the appearance of the tooth enamel that can occur when younger children consume too much fluoride, from any source, over long periods when teeth are developing under the gums³. Excess fluoride exposure can be minimized by using the recommended amount of toothpaste and by storing toothpaste where young children cannot access it without parental assistance⁵.

9 Are there risks to choosing only fluoride-free oral care products?

The main risk is a higher chance of developing cavities. All toothpastes with the ADA Seal of Acceptance for Cavity Prevention must contain fluoride. A product earns the ADA Seal of Acceptance for Cavity Prevention by submitting clinical studies that demonstrate the safety and efficacy of the fluoride toothpaste for cavities prevention².

10 What happens to tooth enamel if I never use fluoride toothpaste?

Without fluoride toothpaste, your tooth enamel is not as well protected and can be more easily weakened by acids and bacteria, increasing your risk of cavities.

11 Can I use fluoride oral care products if my tap water is fluoridated?

Yes, because fluoride in water and in toothpaste work differently. The fluoride in toothpaste is meant to be used topically meaning right on the tooth. It is not meant to be swallowed but to expectorate after use (spit it out).

12 How does fluoride in toothpaste actually help prevent cavities?

Fluoride helps to repair weakened areas of enamel and makes teeth stronger. It reverses the early signs of tooth decay and helps protect against future cavities¹.

13 Is fluoride toothpaste necessary for children and adults with good eating and brushing habits?

While a healthy diet is good for your teeth, research shows fluoride provides extra protection even if your eating habits are excellent².

14 What are the benefits of using professional recommended prescription strength fluoride toothpaste?

Prescription strength fluoride toothpaste (5000 ppm) increases resistance to acid and enhances fluoride penetration into enamel which helps prevent cavities. The World Health Organization (WHO), American Dental Association (ADA) and American Association of Pediatric Dentists (AAPD) recommend prescription strength fluoride toothpaste for adults and children 6 years and older that are at high risk of cavities^{5,7,8}. Talk to your dental professional for more information.

15 How much prescription strength fluoride toothpaste should I use?

Adults and children ages 6+ should brush with a thin ribbon of prescription strength toothpaste. Parents should supervise children 6-12 years old to ensure they don't swallow the product. Children should expectorate and rinse thoroughly with water after use. Do not use in pediatric patients under age 6 years unless recommended by a dentist or physician.

16 How much fluoride is used during in office varnish treatments for patients 6 years and older?

An ADA panel recommended application of 2.26% fluoride (5% sodium fluoride) varnish for patients 6 years and older who are at a high risk of cavities¹.

17 How does fluoride varnish work?

Fluoride varnish works by being absorbed into the outer layer of the tooth (enamel), making it stronger and more resistant to decay.

18 How does fluoride mouth rinse work?

While not a replacement for daily brushing and flossing, use of mouth rinse (mouthwash) offers the benefit of reaching areas not easily accessed by a toothbrush⁹. The ADA recommends prescription-strength mouth rinse (0.2% neutral sodium fluoride) for patients 6 years or older at elevated risk of cavities¹.

19 Are prescription strength toothpastes, rinses and varnishes safe for children and adults?

Prescription strength toothpaste and rinses are safe for adults and children ages 6+ when used as directed. Varnish is applied at the dentist's office, it is safe and effective for young children and adults.

20 Is the Fluoride in Colgate's Oral Care products safe?

All Colgate products that contain fluoride are safe. They are formulated to comply with legal and regulatory requirements. We continuously monitor and evaluate the safety of our ingredients and actively engage with outside experts and resources to stay up to date on all emerging science and to deepen our knowledge.

1. www.ada.org/resources/ada-library/oral-health-topics/caries-risk-assessment-and-management

2. www.ada.org/resources/ada-library/oral-health-topics/home-care

3. www.ada.org/resources/community-initiatives/fluoride-in-water/fluoridation-faqs

4. www.ada.org/about/press-releases/community-water-fluoridation-prevents-painful-dental-disease

5. www.ada.org/resources/ada-library/oral-health-topics/fluoride-topical-and-systemic-supplements

6. www.ada.org/about/press-releases/ada-in-support-of-community-water-fluoridation

7. www.aapd.org/media/Policies_Guidelines/BP_FluorideTherapy.pdf

8. cdn.who.int/media/docs/default-source/essential-medicines/2021-eml-expert-committee/applications-for-addition-of-new-medicines/a14_fluoride-toothpaste.pdf

9. www.ada.org/resources/ada-library/oral-health-topics/mouthrinse-mouthwash