

# Promoting oral health through fluoride toothpaste

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## CONTEXT

Fluoride toothpaste is the most available source of fluoride throughout the world. Since the 1970s, fluoride toothpaste, independently or together with water fluoridation, has been responsible for the decrease in the incidence of dental caries<sup>1</sup>.

FDI advocates the use of fluoride at an appropriate concentration and dose for the management of dental caries through prevention and/or treatment of early lesions in children and adults (including the elderly and other at-risk groups)<sup>2</sup>.

The key factor in preventing carious lesions from developing or progressing is to maintain a good balance between the remineralization and demineralization of the hard tissues of the teeth, so there is no net mineral loss over time. Evidence shows that avoiding frequent carbohydrate intake, performing regular removal of dental plaque from tooth surfaces, and using fluoride toothpaste together with regular check-ups with a dentist are the best strategies for that purpose, and these are highly recommended<sup>3,4</sup>.

Despite all these recommendations, dental caries is still a public health problem and the use of fluoride toothpaste should be encouraged to help eradicate the disease worldwide.

## SCOPE

The use of toothpaste with a fluoride concentration between 1,000 and 1,500 ppm has proved to be effective in preventing, arresting and treating dental caries<sup>5,6</sup>.

Exposure to low-dose topical fluorides throughout the day has been shown to reduce the incidence of dental caries with a negligible risk of enamel fluorosis. The use of fluoride toothpaste in young children, particularly under three years old, must always be supervised<sup>1,2,5</sup>.

The best technique and timing to brush is at least twice per day for a minimum of two minutes and preferably without rinsing with water after spitting out the toothpaste. It is important to brush last thing at night and on one other occasion that can be in the morning or immediately after meals<sup>2</sup>. Older adults must rinse vigorously before brushing.

## DEFINITIONS

**Fluoride toothpaste:** Regular use of fluoride toothpaste is scientifically recognized as a major mean to reduce the prevalence and severity of dental caries and delay its onset in the global population<sup>1,2,3,5</sup>. It is also effective in the treatment of non-cavitated enamel carious lesions and in stopping the progression of cavitated caries, including root caries lesions<sup>2,4,6</sup>. Its cost-effectiveness and safety reinforce the importance of its use together with mechanical plaque removal in the fight against dental caries.

## PRINCIPLES

FDI urges all countries to recognize the importance of providing universal access to fluoride toothpaste to

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fight dental caries and to improve oral health and general health.

## POLICY

FDI advocates the use of over-the-counter toothpaste with a fluoride concentration of between 1,000 and 1,500 ppm, with a minimum of 800 ppm fluoride ion bioavailability, for everybody and recommends the following:

- Promote fluoride toothpaste through their evidence-based effectiveness compared to conflicting over-the-counter products.
- Parents/carers should begin brushing their child's teeth once the primary teeth have started to erupt.
- In children under three years of age, the guidelines from the respective national authorities should be followed.
- Children between three and six years old should brush with a pea-size amount of fluoride toothpaste and be supervised by an adult to ensure that they do not swallow toothpaste.
- In high-caries-risk patients older than 16 years of age, toothpaste may contain more than 1,500 ppm of fluoride, but its concentration should be adapted to the needs of the patient.

FDI urges all stakeholders, including governments, health professional associations, the education system, civil society and industry to take action to ensure that:

- populations understand the benefits of toothbrushing twice-daily with fluoride toothpaste at the appropriate time and using the proper technique;
- the introduction of toothbrushing with fluoridated toothpaste in schools and nursing homes is acknowledged as an important public health action;
- effective fluoride toothpaste is made universally accessible and affordable;
- taxes on fluoride toothpaste are reduced; and
- the actions of national regulatory agencies are directed to accept and follow ISO 11609:2017 to improve toothpaste quality.

## KEYWORDS

Dental caries, fluoridated toothpaste, oral health

## DISCLAIMER

The information in this policy statement was based on the best scientific evidence available at the time. It may be interpreted to reflect prevailing cultural sensitivities and socio-economic constraints.

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