

Fluoride Mouthrinse

A safe and effective way to prevent tooth decay



Oral Health in Massachusetts: A Fact Sheet

What is the public health issue?

Tooth decay is a preventable chronic disease that affects children across all age groups.¹ In fact, it is the most common chronic disease of childhood.² Untreated tooth decay can cause pain and tooth loss, which can have negative effects on a child's self-esteem. Tooth decay can also affect eating, sleeping, learning, and proper nutrition.³ Access to prevention and treatment services decreases the risk for developing tooth decay; however, many children lack access to these services. One way to deliver preventive oral health services to children that can help prevent tooth decay is a fluoride mouth rinse program in school.

Fluoride Mouthrinse...

- ✓ Prevents tooth decay by 20-40% when used consistently in a school-based program

What is fluoride?

Fluoride is the foundation for preventing tooth decay. Fluoride is a natural substance and is the 17th most abundant element in nature. Fluoride is "nature's way of preventing tooth decay." Fluoride protects teeth from tooth decay and helps to reverse early dental decay by hardening (remineralizing) the tooth's outer surface. Fluoride can have a systemic effect and it can have a topical effect (on the outer surface). Fluoride in a community water supply offers a systemic effect and is the most beneficial and economical way to strengthen both baby teeth and permanent teeth. Unfortunately, not all Massachusetts communities' public waters supplies have this benefit. Fluoride in toothpaste, given as part of dental treatment, and as part of the fluoride mouthrinse programs offers a topical effect.

What is the impact of fluoride mouthrinse?

Since 1978, the Massachusetts Department of Public Health has supported the Fluoride Mouthrinse Program, providing school-age children in grades 1-6 with an effective way to reduce decay at no cost to parents. This service is valuable to children because fluoride has been shown to be a safe, inexpensive and extremely effective in preventing tooth decay. When acid from plaque bacteria begin taking minerals out of the tooth enamel, fluoride can put minerals back in, and therefore prevent tooth decay! Weekly mouthrinsing with fluoride provides topical fluoride; and the child does not swallow it. This type of topical fluoride can prevent tooth decay by 20-40%.⁴ Other important sources of fluoride include toothpaste, fluoridated community drinking water, and foods and drinks prepared with fluoridated water.

Is fluoride mouthrinse safe?



Yes. The Food and Drug Administration (FDA) has approved the 0.2% weekly sodium fluoride mouthrinse as a safe and effective means of preventing tooth decay. Under supervision, participating students will rinse their mouths in school with 10ml (2 teaspoons) of 0.2% neutral sodium fluoride solution for one minute each week. The solution is not swallowed. There are no known adverse effects associated with this procedure.⁵

What is Massachusetts doing?



A 2007 survey found over 40% of Massachusetts third-graders had experienced tooth decay, and only about 46% of third-graders had at least one dental sealant (a material put into the tooth grooves to prevent cavities).⁶ To help reduce the number of children who suffer from tooth decay, Massachusetts is one of thirty-four states offering the Fluoride Mouthrinse Program in public and private schools. More than 260 public and private schools participate in the statewide program. During any school year, more than 50,000 schoolchildren will receive the fluoride mouthrinse benefit in school, which is more than six times the participation rate when the program began in 1978.⁷

References

¹ Centers for Disease Control and Prevention. Fluoridation of drinking water to prevent dental caries. *Morbidity and Mortality Weekly Report* 48 (1999): 933–40.

² U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research. *Oral Health in America: A Report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, 2000.

³ Truman BI, Gooch BF, Sulemana I, et al., and the Task Force on Community Preventive Services. Reviews of evidence on interventions to reduce dental caries, oral and pharyngeal cancers, and sports-related craniofacial injury. *American Journal of Preventive Medicine* 23 (2002, 1S): 1–84.

⁴ U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. *Preventing Dental Caries*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2002. http://www.cdc.gov/OralHealth/factsheets/dental_caries.htm.

⁵ Centers for Disease Control and Prevention. *Oral Health, Preventing Cavities, Gum Disease, and Tooth Loss 2006* [Cited December 15, 2006]; Available from: <http://www.cdc.gov/nccdphp/publications/aag/oh.htm>

⁶ Catalyst Institute, *The Oral Health of Massachusetts' Children*, January 2008.

⁷ Massachusetts Department of Public Health, 2008.

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