

**INDIAN
ACADEMY
OF ORAL
BIOLOGY**

Fluoride Mouth Wash (Rinses)

Instructional Leaflet [Feb 2015, Updatable]

NEED FOR FLUORIDE MOUTH RINSE

Dental decay is one of the common oral diseases affects the population throughout the globe at a varied severity. If this ailment is not detected early and prevented appropriately, a loss of tooth may happen eventually, and that impacts on quality of life (QoL) and economy as well^[1,2]. The prevalence of dental caries is more in non-fluoridated areas. Judicial use of fluoride helps decline the prevalence rate of dental caries and stop its sequel. Common means of fluoride delivery are fluoridated drinking water, fluoridated milk, salt, F-supplemented dentifrices, tablets, varnishes etc.

One of the fluoride delivery systems is Fluoride mouth rinse. Fluoride mouth rinse is a formulated concentration of Fluoride used for daily or weekly basis. And Sodium fluoride (NaF) is the superior solution comparing to other preparations³. The strength of 0.05% NaF solution contains 230 ppm fluoride is recommended for daily use (once a day), on the other hand, 0.2% NaF is used once in a week or two weeks. The later contains 0.2% NaF ie. 900 ppm fluoride^[2,3]. Supervised daily use of NaF has got better effect in preventing dental caries comparing to weekly or fort-nightly regimen³.

HOW WE FORMULATE THEM

Fluoride mouth rinses (NaF) were prepared in the fluoride research division of the Department of Oral Biology, AB Shetty Memorial Institute of Dental Sciences of Nitte University Deralakatte, Mangalore, India. Before preparation of the product, the 1000 ml volumetric flask, weighing glasses, spatula and plastic storage bottles and de-ionized water were autoclaved. The pH 7 was recorded by using pH meter.

Mouth rinse / pH	Preparation	Fluoride in ppm	Fluoride in ppm detected by ISE ¹
0.2 % NaF / pH 7	2 grams of NaF was dissolved in 1000 ml of de-ionized water.	900 – 920	907
0.05% NaF / pH 7	0.25 grams of NaF was dissolved in 500 ml of de-ionized water.	225 – 230	221.8

¹ F- Ion-selective Electrode is available at the Fluoride Research Division of the Department of Oral Biology.

REFERENCES:

1. MPH, Elmer L. Green, DDS, MPH, and Valerie B. Haley, BS. Am J Public Health. 1998 Dec;88(12):Changes in Dental Fluorosis and Dental Caries in Newburgh and Kingston, New York Jayanth V Kumar, DDS, MPH, Philip A. Swango, DDS, MPH, Lloyd L. Lininger, PhD, Gary S. Leske, DDS, 1866-70
2. .Effect of mouthrinsing with a 0.2 per cent neutral NaF solution on the deciduous dentition of first to third grade school children Louis W. Ripa, DDS, MS Gary S. Leske, DDS, MS, MPH Andre Varma, MD, MS, The American Academy of Pedodontics/Vol. 6 No. 2.
3. Delivering Better Oral Health - An evidence-based toolkit for prevention (<http://www.dh.gov.uk>).

IMPORTANT NOTE

- **PRESCRIPTION USE ONLY (Consult with dentist before use)** : Both the preparations will be used upon consultation with a qualified dentist, and in ideal situation application will be under direct supervision of a dentist, otherwise, a trained parent / care giver will be acceptable by the dentist. Children below 16 will NEVER be allowed to use them unsupervised.
- **CONTRAINDICATION FOR CHILDREN BELOW 7 years-old:** Do not prescribe fluoride mouth rinse to the children below 7 years old.
- **RINSE THE SOLUTION THOROUGHLY AND KEEP THE SOLUTION HOLD FOR 10 MINS:** Take approximately 20 ml of solution inside mouth and rinse thoroughly for 10 mins. Do not drink, please spit it out completely. Immediate after use of this solution do not eat or drink for at least 30 mins. You better wash your teeth with normal tap water after an hour. It helps proper action of Fluoride on your teeth
- **KEEP THE SOLUTION OUT OF REACH OF THE CHILDREN:** Keep the solution out of reach of the children, and shelve them preferably in a cool dark place..
- **REPORT IMMEDIATELY IF AN ADVERSE REACTION HAPPENS FROM THIS RINSE:** It is dangerous if the children drink them, in case you may report it to a qualified dentist or hospital emergency any unwanted situation and allergy from this product will be reported without delay.
- **SAFE & STERIZED:** The pH of the solution is 7, and the preparation has been autoclaved.
- **WE DO NOT ADD A FLAVOUR** to prevent drinking or over-use of the rinse by the children.

© Developed by The Fluoride Research Team Under guidance of Professor Chitta Chowdhury Head of the Department of Oral Biology & Genomic Studies(OBGS), AB Shetty Memorial Institute of Dental Sciences, Nitte University, Deralakatte, Mangalore-575018.

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This document has been generated in consultation with published papers, updated guideline. The document has been circulated to the executive board and expert group of Indian Academy of Oral Biology (IAOB- DKM-S137-2013-14) for an approval.