



High Fluoride Toothpaste

Full Summary

Description:

Prescription strength or high fluoride toothpaste has a high concentration of sodium fluoride (NaF) and ranges from above 1,500 parts per million (ppm) to 5,000 ppm which is the maximum concentration available. The maximum concentration of fluoride in conventional OTC products is 1,500 ppm. Prescription fluoride toothpastes (PFT) are used in the same manner as regular toothpaste and therefore require increased patient compliance.

Effectiveness and Efficacy:

Studies on 1,500-2,800 ppm fluoride dentifrice:

Clinical trials in Europe reported significant caries reduction of 24% for toothpastes with 1,500-2,600 ppm fluoride. Randomized double-blinded clinical trials in US comparing 1,700, 2,200 and 2,800 ppm to 1,100 ppm reported statistically significant lower caries with the use of 2,800 ppm toothpaste and caries reduction rates for 2,200 and 2,800 ppm toothpastes ranged from 18% to 21%.

Studies on ,5000 ppm fluoride dentifrices:

High concentration fluoride toothpaste i.e., 5,000 ppm has been shown to decrease caries rate significantly in earlier studies however these studies are older field trials with bias and confounding. Studies in the recent years have focused on arresting caries (not preventing) and some have drawbacks such as short duration of study. The current evidence on 5,000 ppm dentifrice is insufficient and there is a need for evidence from clinical studies.

Summary and Recommendations:

High fluoride toothpaste is particularly used for preventing and controlling or arresting dental caries among high-risk individuals. It is not recommended for children. They are



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effective in arresting root caries lesions among those who have exposed root surfaces. It is also recommended for cancer patients who typically develop rampant caries following head and neck radiation. When compared to dental office preventive procedures the use of high fluoride toothpastes are more beneficial and cost-effective if used properly. High fluoride toothpaste is recommended for use once daily and should be kept out of reach from children.