



Title **Prevention of Dental Caries**

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Summary and Conclusions in English, and full text report in Swedish are available on
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Aim

To systematically review the evidence on prevention of dental caries in children and adults and to assess the cost effectiveness of the methods.

Conclusions and results

Around 250 studies were included, covering prevention methods involving fluorides, fissure sealants, tooth cleaning, and methods of substituting sugar. Cost-effectiveness analyses were few, and most were of low quality, as were studies on groups of patients with special needs, ie, the elderly, chronically ill, disabled, and children with high caries activity.

Strong scientific evidence indicates that tooth brushing with fluoride dentifrices twice per day helps to prevent caries. Moderate evidence supports prevention programs that include fluoride. The scientific literature presents evidence of positive effects on caries prevention from fissure sealants, fluoride gel, fluoride varnish, fluoride mouthrinses, and professional tooth cleaning.

Scientific evidence shows that several methods currently in use have an effect on preventing dental caries. However, evidence is lacking on economic outcomes and effects on patients with special needs.

Methods

The report consists of a systematic review and includes one meta-analysis on fissure sealants. The MEDLINE and Cochrane Library databases from 1966 to 2001 were searched. Randomized clinical trials and controlled clinical trials with at least 2 years of followup (shorter followup was accepted for primary teeth and root surfaces) and that reported caries increment were included and appraised by protocol-defined criteria.

Further research/reviews required

Older patients may need special attention in programs to prevent caries. Patients with chronic diseases and various functional impairments need preventive interventions that are designed and evaluated according to the special

problems associated with the disease. Patients with high caries activity and at a high risk for caries may also need special programs for caries prevention. Current evidence is insufficient to draw any conclusions concerning how prevention of caries should be designed for these groups. This is an important area for future research.