

Caries

STRATEGIES FOR CARIES MANAGEMENT IN GENERAL DENTAL PRACTICE

The principles of modern caries management focus on:

- *Prevention,*
- *Risk assessment,*
- *Risk reduction,*
- *Treatment planning that is appropriate for the risk level and follows principles of minimal intervention dentistry, and*
- *Monitoring of noncavitated carious lesions.*

Caries prevention

Prevention can be done on two levels: population and individual.

In dentistry the widely recommended and accepted population approach to caries prevention is water fluoridation. In recent years, brushing with fluoride toothpaste has become common practice in developed countries. Some people argue that as the frequency of brushing increases the need for water fluoridation diminishes. There are major differences between the two fluoride vehicles regarding mode of action, cost and usage, therefore fluoridated toothpaste cannot replace water fluoridation. The two vehicles should be used to complement rather than replace each other.

The individual level of prevention happens at home or during a dental visit. Caries prevention at home includes habits (eg. use of fluoridated toothpaste) as well as use of additional products that may be recommended by dental clinicians and used only for a short period of time. Habitual use of fluoridated toothpaste is very important as it forms a benchmark fluoride exposure necessary for caries prevention.

Caries risk assessment

Levels of caries risk vary between individuals due to differences in fluoride use, dietary pattern, general health or social circumstances.

Caries risk can be categorised into three levels: low, moderate and high.

- Low risk patients are successful in overcoming caries risk factors. Their use of population measures (water fluoridation) and individual at home prevention efforts are therefore sufficient.
- Moderate risk patients suffer from de/re-mineralisation imbalance. Such patients will require information as to the causes of the imbalance and are likely to require additional fluoride.
- High risk patients suffer from severe demineralisation imbalance caused by well-established unhealthy habits that needs to be dealt with urgently.

Fluoride is needed not only to return patient mouth to remineralisation balance and to prevent further decay, but also to remineralise precavitated and cavitated lesions, and to ensure long-term success of restorative treatment.

Fluoride use

- Promotion of regular use of fluoridated toothpaste is important for all caries risk levels and the higher the risk level the more important it becomes. It is not enough to just say to a high caries risk patient to brush regularly. Such patients need a lot of guidance, reinforcement, checking and dental education to help them understand their own dental needs.
- It is of little use to recommend additional fluoride products to a patient that does not brush regularly. If the patient does not remember to brush he/she is not very likely to remember to use additional dental products.
- To increase exposure to fluoride through brushing, a simple recommendation of "spit, no rinse" is advisable. Changing to high fluoride toothpaste may be advisable for the high caries risk patients.

Control of caries only through restorations does not stimulate a patient to make behavioural changes. Therefore it needs to be performed in conjunction with preventive strategies.