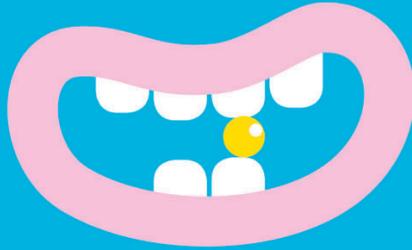


CASE ORAL HEALTH

Intensified dental care is a wise investment for the future



Children who received intensified dental care and used tablets containing fluoride and xylitol developed **44%** less caries lesions compared to those who received standard dental care.

CASE: ORAL HEALTH

A randomised clinical trial was conducted in Pori between 2001 and 2005 to determine whether the risk of developing caries lesions requiring dental fillings could be reduced among children aged 11 and 12 at the early stages by simple preventive measures and individual health advice given by a dental hygienist. At the same time, the whole population of the city was exposed to basic information about preventive dental care.

The children included in the trial had at least one active caries lesion which, if left untreated, could have developed into a cavity that would require filling. The children in the control group received dental health care according to the standard services of Pori.

The result was that the children who were treated by a dental hygienist in the experimental group developed 44% less caries lesions requiring filling than the children who received standard dental care.

The experimental group's dental care services cost 16% more than the standard dental care received by the control group.

Maintaining one surface of a tooth healthy instead of having to use fillings cost €34.07.

Between 2005 and 2009, after the end of the trial, the total dental care costs of the experimental group decreased by 16% in comparison to the control group. For fillings, the difference in costs was 27%. The trial also had another positive impact as the members of the experimental group had regular dental check-ups 18% more often than the members of the control group after the trial.



One life
Enjoy every day.



The One Life health project strives towards a healthier Finland. The Finnish Brain Association, the Finnish Diabetes Association, the Filha Finnish Lung Health Association, the Organisation for Respiratory Health, the Finnish Association for Mental Health, the Finnish Heart Association, and the Cancer Society of Finland have teamed up to promote people's health and welfare throughout their lives. Duodecim participates in the project as an expert organisation.

Costs

The average post-trial dental care costs of a member of the experimental group were at 298 euros, while the treatment of a control group member cost 355 euros on average.

Savings:

Simple preventive measures and individual health advice reduced the long-term total dental care costs in the experimental group by 16%, in spite of the higher costs in the beginning. The number of caries lesions requiring filling was clearly decreased, which led to savings and improved health.

Over three million dental fillings are done in Finland every year, and they take up 30–50% of a dentist's work time.

Preventing dental caries before it develops into cavities that require fillings creates savings for the society and individuals while also improving their health.

Investing in the prevention of dental and oral diseases creates savings in all health care services, as oral diseases can, among other things, increase the risk of myocardial and cerebral infarctions, weaken the therapeutic equilibrium of diabetes patients, and contribute to the onset of Alzheimer's disease.

Sources:

- Hausen H, Seppä L, Poutanen R, Niinimaa A, Lahti S, Kärkkäinen S, Pietilä I. Noninvasive control of dental caries in children with active initial lesions. A randomized clinical trial. *Caries Res* 2007; 41(5):384-91.
- Hietasalo P, Seppä L, Lahti S, Niinimaa A, Kallio J, Aronen P, Sintonen H, Hausen H. Costeffectiveness of an experimental caries-control regimen in a 3.4-yr randomized clinical trial among 11-12-yr-old Finnish schoolchildren. *Eur J Oral Sci* 2009;117(6):728-33.
- Hietasalo P, Seppä L, Niinimaa A, Kallio J, Lahti S, Hausen H. Post-trial costs, clinical outcomes, and dental service utilization after a randomized clinical trial for caries control among Finnish adolescents. *Eur J Oral Sci* 118;3(265-9):728-33.



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