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## BEHAVIOURAL SCIENCE; DENTAL EPIDEMIOLOGY

### Behavioural and demographic factors during early childhood and poor dental health at 10 years of age

Mattila M-L, Rautava P *et al*. *Caries Res* 2005; **39**: 85–91

Both child and parent-related factors were associated with poor dental health (PDH) in children aged 10 yrs.

This study sought behavioural variables in children 1.5 – 3 yrs old, which would predict poor dental health at age 10 yrs, with the aim of effectively targeting preventive resources. A representative sample of 1074 children had dental examinations at ages 3 and 10 yrs in an area of Finland where the water was not fluoridated. PDH was defined as dmft/DMFT of 5 or more.

At 3 yrs, 88 children had caries, and 75 of them were examined at 10 yrs: 26 of these had PDH and 10 had no caries. At 10 yrs, 163 of 1074 children had PDH, while 481 had no caries.

Regression analysis identified significant PDH odds ratios for the following child-related predictive factors: nocturnal juice drinking at 1.5 yrs, sweet-eating twice a week or more frequently, plaque on teeth, and not daily tooth-brushing at age 3. Significant parent-related factors were: a young father, a short maternal education, a high maternal caries rate, and a low paternal tooth-brushing frequency.

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## PAEDIATRIC DENTISTRY; RESTORATIONS

### Eight-year study on conventional glass ionomer and amalgam restorations in primary teeth

Qvist V, Laurberg L *et al*. *Acta Odont Scand* 2004; **62**: 37–45

Failure rates were higher for glass ionomer (GIC), but caries progression was more likely on tooth surfaces adjacent to amalgam (AM) restorations.

This study followed 515 GIC and 543 AM restorations inserted by 14 Danish clinicians over a 7 month period. Restorations contacted a total of 485 primary and 107 permanent adjacent tooth surfaces. Primary caries accounted for 86% of the lesions treated. About half the teeth with GIC restorations in situ were exfoliated, and 63% with AM.

Median survival time for GIC restorations was 3.5 yrs, but was estimated to be in excess of 7.8 yrs for AM ( $P < 0.001$ ). Caries progressed in 37% of surfaces contacting AM, and 19% contacting GIC.

The authors conclude that the much shorter life-time for GIC means it is not suitable for using in place of AM, despite the lesser effect of GIC on adjacent tooth surfaces. This effect was offset by the need for replacement and the cost and side-effects of operative treatment.

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## PERIODONTOLOGY; BEHAVIOURAL SCIENCE

### Anxiety, gingival inflammation and periodontal disease in non-smokers and smokers – an epidemiological study

Johannsen A, Åsberg M *et al*. *J Clin Periodontol* 2005; **32**: 488–491

Anxious subjects who smoked had more periodontal disease.

This study compared 144 subjects with untreated periodontal disease and 26 periodontally healthy subjects. All completed a 78 item questionnaire which included 1 item to identify anxious patients. Periodontitis subjects included 22 with aggressive periodontitis and 119 with chronic adult periodontitis.

There were no significant differences in plaque and gingival indices between anxious and non-anxious smokers or non-smokers, nor in pockets  $>4$  mm in non-smokers. However, anxious smokers had more pockets  $>4$  mm than non-anxious smokers. After controlling for smoking, the GI of anxious subjects was significantly higher than that for non-anxious subjects.

The authors note other studies which have reported increased inflammation in anxious subjects, and suggest that anxiety may have adverse effects on resistance to periodontal disease.

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## IMPLANT DENTISTRY; PROSTHODONTICS

### A clinical trial of patient satisfaction and prosthodontic needs with ball and bar attachments for implant-retained complete overdentures: three year results

MacEntee MI, Walton JN *et al*. *J Prosthet Dent* 2005; **93**: 28–37

The ball-spring attachment needed more repairs, but subjects were satisfied with both methods of retention.

This study compared 34 patients with a mandibular overdenture supported by 2 implants linked with a bar and clip (BC), and 34 with an overdenture supported by separate implants with ball-spring (BS) attachments. Self-reported healthy status was significantly greater in the BC group (38%) than in BS (18%). Each subject paid US\$1300 for the treatment, but maintenance was free.

The number of denture adjustments was similar in both groups, as was the time taken for them. However, both the number of repairs and the time taken to do them were significantly greater in the BS group, though the cost of repairs did not differ significantly. There was no difference in satisfaction between the two groups.

The authors note that repairs were commoner in implants which were inclined more than  $6^\circ$  lingually or  $6.5^\circ$  facially in the sagittal plane, and mention the manufacturer's recommendation for paralleling BS implants and the denture insertion path.

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