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IMPLANT DENTISTRY; PHONiatrics; LOGOPAEDICS

Effects of sinus lifting on voice quality. A prospective study and risk assessment

Tepper G, Haas R *et al.* *Clin Oral Impl Res* 2003; **14**: 767-774

Voice characteristics were not changed by sinus lifts in 4 patients who depended professionally on use of speech.

Sinus lifting reduces the size of the maxillary sinus, and it is known that some sinus conditions may alter voice quality. This study was performed appropriately in Vienna, and involved 4 subjects who required bilateral sinus lifting to provide sufficient bone for implant-supported prostheses. Iliac crest autografts were placed under the sinus endothelium, and implants were placed 6 months later.

Radiological examination showed initial mean sinus volume to be 18.2 cm³, and the graft occupied a mean 16.5% of this. An experienced examiner (blind to sinus volumes) assessed subjects before and after surgery with respect to voice profiles in singing, speaking and shouting, performing a variety of subjective and objective tests.

Subjects did not notice any alteration in timbre or other voice characteristics. Voice parameters after surgery, and periodicity and spectral analyses, showed no significant changes. Slight variations were suspected in 2 subjects from objective data, but auditory perceptual evidence did not corroborate them.

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ONCOLOGY; RISK FACTORS

Coffee and tea intake and risk of oral, pharyngeal and esophageal cancer

Tavani A, Bertuzzi M *et al.* *Oral Oncol* 2003; **39**: 695-700

This cross-sectional study suggests a possible protective effect of caffeine against these tumours.

To date, studies have disagreed on a possible association between coffee and cancer risk, and also between tea and cancer risk. This study examined coffee and tea drinking habits in 749 subjects with cancer of the oral cavity and pharynx, 395 with oesophageal cancer and 2301 hospital patient controls without tumours, matched by gender and age.

Regression analysis was performed, taking account of age, gender, education, smoking experience, and intakes of alcohol, fruit and vegetables. A significant reduction of subjects with both types of tumour was found in subjects who drank more than 3 cups of coffee per day. This effect was not found in those who drank decaffeinated coffee or tea but consumption of these beverages was limited in the samples compared. Coffee appeared to have a stronger effect in current smokers than in non-smokers.

The authors discuss possible reasons for their findings, including substitution of coffee for alcohol, but feel their study was adequately controlled for the covariates known to be related to these tumours.

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BEHAVIOURAL SCIENCE; CARIOLOGY

A life-course approach to assessing causes of dental caries experience: the relationship between biological, behavioural, socio-economic and psychological conditions and caries in adolescents

Nicolau B, Marceles W *et al.* *Caries Res* 2003; **37**: 319-326

Early life experiences were related to high levels of caries.

Like other chronic diseases, caries has a behavioural dimension which may be affected by socio-economic factors. The first phase of this study invited participation of all 13-year-old children in a Brazilian town; 85% did so, and were examined and interviewed. In the second phase, 330 families of these children were randomly selected, and 94% participated. There were further exclusions because of incomplete data availability.

Mean DMFT was 4 in phase I and 3.8 in phase II. In phase II, 3/4 of children were from 2 parent families and 7% had a step-parent; 2/3 of families had incomes below 5 times the Brazilian minimum wage. More than 3/5 of the adolescents had been born in brick houses, nearly 2/5 were first children, and 12% were of low birth weight.

Regression analysis showed high caries levels were most related to house material at birth, not being the first child, and low birth weight. The authors discuss the concept of 'biological programming' in relation to how these factors might affect caries.

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TOOTH WEAR

The progression of tooth erosion in a cohort of adolescents of mixed ethnicity

Dugmore R, Rock WP. *Int J Paediatr Dent* 2003; **13**: 295-303

In a longitudinal study, associations were found between erosion, ethnic group and social deprivation.

The progress of dental erosion is largely inferred from cross-sectional data. A random sample of 1753 12-year-olds from all state schools in Leicestershire was examined, and 2 years later 1308 were located and re-examined. The second sample had similar demographic characteristics to the first. All longitudinal comparisons were made within the second sample at the 2 examinations.

Erosion was found in 56% at age 12, increasing to 64% at 14; those with deep enamel exposure increased from 4.9% to 13.1%, and those with dentine exposure, from 2.4% to 8.7%. There was significantly more erosion in boys than girls. Over the 2 years, 27% developed new or more advanced erosion. The lowest increases were seen in Asian girls. Overall, there were greater increases in the most deprived children, and in white males.

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