



衛生防護中心
Centre for Health Protection

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Health Tips

To keep mouth healthy and have bright smiles, it is essential to maintain good oral hygiene, eat and drink wisely, avoid smoking, protect from injuries, and be dental aware.

The Importance of Keeping Gums and Teeth Healthy

Good oral health is more than just a bright white smile. Without vigilant oral hygiene, dental plaque will accumulate which may lead to dental decay, gum diseases, pain or even tooth loss. While gingivitis may begin with mild redness, swelling and bleeding of the gums, untreated gingivitis may advance to periodontitis causing chronic inflammation of the surrounding tissues and gradual destruction of bony structures that support the teeth. In adults, periodontitis is one of the major causes of tooth loss. Further, suboptimal oral health may have profound effects beyond the oral cavity.

Association of Poor Oral Health and Chronic Diseases

Studies have demonstrated that periodontal diseases are probably associated with increased risks for a number of life-threatening chronic diseases. For example, a link between periodontal disease and diabetes has long been noted. The scientific rationale behind the association proposes that oral infection triggers the body's inflammatory response, which in turn affects insulin sensitivity and ultimately leads to deregulation of blood sugar levels.¹ Results from the US National Health and Nutrition Examination Survey, which successfully interviewed 9 296 adults aged 25-74 who completed a baseline dental examination between 1971 and 1976 and had at least one follow-up evaluation between 1982 and 1992, observed that individuals with intermediate levels of periodontal disease had a two-fold risk of incident diabetes when compared with healthy individuals.² Periodontal disease can also possibly lead to a release of oral bacteria into the bloodstream and contribute to the formation of blood clots, thereby increasing the risk of coronary heart disease (CHD). A meta-analysis of 5 prospective cohort studies with 86 092 patients being followed-up for at least 6 years showed that individuals with periodontitis had a 14% increased risk of developing CHD when compared with the healthy controls.³ A recent review has also suggested a possible link between periodontal disease and certain cancers (such as oral cancer and esophageal cancer).⁴ While sound epidemiological evidence of such an association is still lacking, it is always beneficial to maintain vigilant oral hygiene and keep the level of disease and inflammation to a minimum.

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Oral Health Behaviours among Adults in Hong Kong

Individuals' oral health condition is largely influenced by their oral health behaviour. While brushing and flossing help get rid of dental plaque, removal of tartar (hardened plaque) usually requires professional cleansing by a dentist. A telephone survey conducted by the Department of Health (DH) on over 2 000 community-dwelling adults aged 18-64 between April and May 2010 found that about one in six respondents brushed their teeth once or less a day, close to three-fifths never used or did not use dental floss at the time of survey, and over half had no regular dental check-up (Figures 1(i)-(iii)).

Overall, 8.1% of respondents self-rated their oral health as 'poor' or 'very poor'. As shown in Table 1, those who brushed their teeth once or less a day (12.8%), used dental floss less than once a day (9.7%), had dental check-up less than once a year (11.3%), consumed 3 cups or more sugary drinks a day (21.8%), and were currently smoking (13.6%) were more likely than their respective counterparts to self-rate their oral health as 'poor' or 'very poor'.⁵

Figure 1(i): Frequency of tooth brushing among community-dwelling adults aged 18-64 by sex

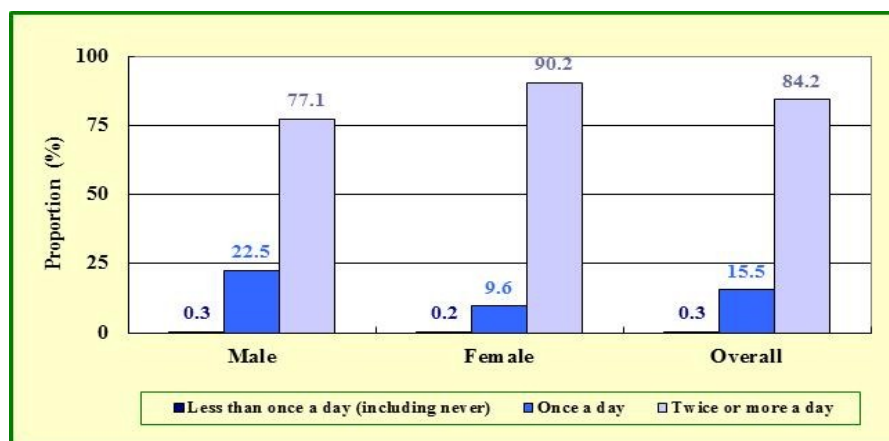


Figure 1(ii): Frequency of dental floss use among community-dwelling adults aged 18-64 by sex

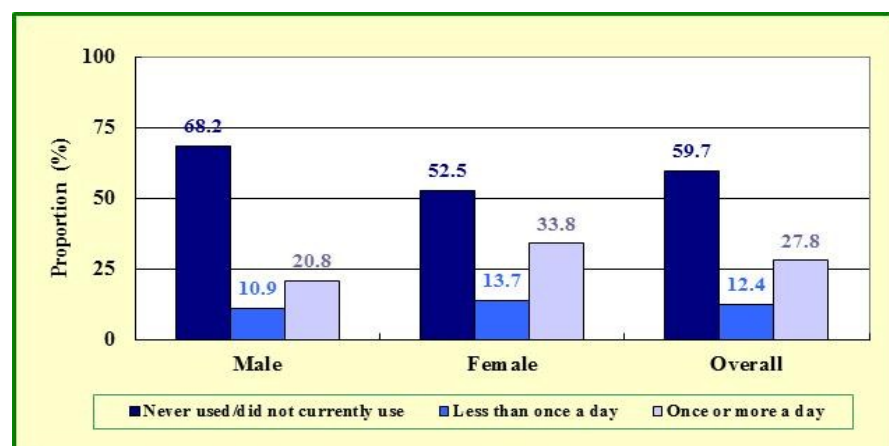
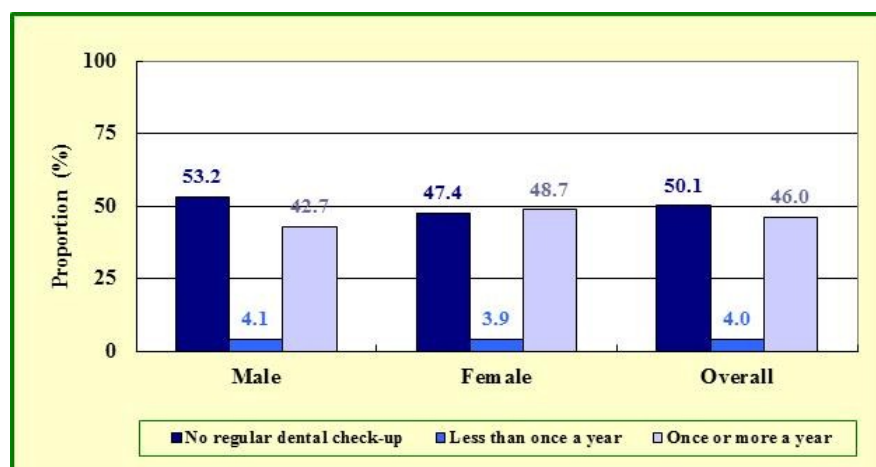


Figure 1(iii): Frequency of regular dental check up among community-dwelling adults aged 18-64 by sex



Note: All respondents excluding those with unknown/missing data.
Source: Behavioural Risk Factor Survey, April 2010.

Table 1: Rate* of community-dwelling adults aged 18-64 who self-rated their oral health as ‘poor’ or ‘very poor’ by oral hygiene and selected lifestyle practices

	Rate*
Teeth-brushing	
Once or less a day (including never)	12.8
Twice or more a day	7.3
Use of dental floss	
Less than once a day (including never used and did not currently use)	9.7
Once or more a day	4.0
Regular dental check-up	
Less than once a year (including no regular dental check-up)	11.3
Once or more a year	4.4
Consumption of sugary drinks	
3 or more cups a day	21.8
1 to less than 3 cups a day	13.5
Less than 1 cup a day	6.9
Smoking status	
Currently smoking	13.6
Quitted smoking	10.9
Never smoke	6.7

Notes: * Rate per 100 people in respective group. Excluding those respondents with unknown/missing data.

Source: Behavioural Risk Factor Survey, April 2010.

Keeping Gums and Teeth Healthy

Neglect of oral health can adversely affect individual’s lives, daily activities and social interactions. To keep mouth healthy and have bright smiles, it is essential to start dental care early through practising proper oral care and leading a healthy lifestyle.

Maintain Good Oral Hygiene

- ⦿ Brushing teeth and flossing are the most important factors in reducing the risk of both caries and periodontal disease. Brush teeth properly for about 2 minutes with fluoridated toothpaste at least twice a day. Floss at least once a day to remove plaque between the teeth where toothbrush cannot reach.
- ⦿ Have regular dental check-ups for early detection of any potential problems, such as dental caries, gum disease and other oral infections.

Eat and Drink Wisely

- ⦿ Reduce the frequency of food and drink intake and do not nibble food or sip drinks continuously. Try not to have more than one snack in between regular meals. In the choice of snacks, pick those which are sugarless or those which use sugar substitute. Sugar can be metabolised by bacteria in the mouth to produce acids which attack the teeth.
- ⦿ The use of sugarless chewing gum can increase the salivary flow and neutralise acid attack, thus reducing the risk of dental decay. However, overuse of chewing gum should be avoided as this could cause problem with the jaw joints.
- ⦿ Avoid acidic food and drinks, which can erode tooth enamel, and also alcoholic beverages that can cause irritation of the gum, tongue and oral tissues.
- ⦿ People with problem of dry mouth should keep their mouth hydrated, preferably by drinking plain water. Avoid chewing hard food (such as shells and bones) to prevent tooth fracture.



Are you aware that the first US President George Washington (1732-1799) never showed his smile in his pictures? It might be because he was plagued with dental ills and lost his teeth at an early age. When George Washington was inaugurated for his first term as president in 1789, he had only one natural tooth remaining and was wearing his first full set of dentures craved from hippopotamus ivory and gold.

Do Not Smoke

- ☉ Smoking reduces the delivery of oxygen and nutrients to gingival tissues. It is one of the main risk factors associated with chronic destructive periodontal disease. In the United States, a study showed that smokers are about 4 times as likely as never-smokers to have periodontitis.⁶ For free quit smoking advice and help, call the Integrated Smoking Cessation Hotline of DH at 1833 183, or download the free Quit Smoking iPhone App that is specially programmed to assist smokers overcome tobacco dependence. For more details, please visit the website of the Tobacco Control Office at <http://www.tco.gov.hk/eindex.html>.

Protect from Injuries

- ☉ Sport injuries, traffic accidents and falls are the most common cause of dental trauma. Thus, remember to wear fitted mouth or face guard when engaging in sports or recreational activities that put the players at any risk of dental injuries. Buckle-up at all times when travelling in cars and secure young children in appropriate car seats or booster seats. Monitor homes for potential tripping and slipping hazards.

Be Dental Aware

- ☉ Be aware of any symptoms that may signal problems with gums (such as red, swollen, tender, bleeding or receding gums), teeth (such as painful chewing, loose or sensitive teeth), and mouth (such as bad breath, mouth sore that does not heal, numbness of the tongue or other areas of the mouth). If in doubt, go for a dental check.

Furthermore, it is important to note that babies and young children also require good oral care. Parents and carers should regularly clean their babies' mouths (e.g. using a clean, damp flannel or cloth to wipe the gums or teeth) and get them accustomed to having a clean mouth. As early childhood tooth decay can lead to poor self-esteem, nutrition and growth problems, parents and carers should take their babies to the dentist for the first dental check-up within 6 months after the first tooth appears. After that, they should bring their children for regular dental check-up at least once a year. Besides, never allow babies and toddlers to be put to sleep with a bottle of milk or drink of any flavor. To help children develop a lifetime habit of good oral hygiene, parents and carers should act as a good model. If the children know how to spit out water, teach them how to brush their own teeth with a soft-bristled toothbrush and pea-sized blob of fluoride toothpaste every morning and before bed at night. Supervise and give them a hand until children have the manual skills to clean their teeth properly by themselves.



News Bites

For more information on common dental problems and oral health care tips, please call the Oral Health Information Hotline of DH at 2713 6344, or visit the Oral Health Education Unit's website at www.toothclub.gov.hk.

Since 1980, the School Dental Care Service (SDCS) of DH has been promoting oral hygiene as well as offering dental care services to primary school children through eight dental clinics in Hong Kong. Children enrolled in the service will receive an annual dental examination together with preventive and basic dental care. In 2010/11 school year, over 314 000 primary school children participated in the SDCS, accounting for 95.1% of the total primary school children in Hong Kong.

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A study found that children's feeding, snacking and tooth-brushing habits were the significant predictors of new caries development among preschool children in Hong Kong.

The study involved oral examinations of 358 preschool children aged 3-4 years in 2007 and followed them up when they were 5-6 years in 2009. The dental caries experience of a child was determined by counting the number of decayed, missing or filled primary teeth (dmft) both in the baseline survey and follow-up study. Using a structured questionnaire, information about children's oral health behaviours related to feeding and dietary habit (use of nursing bottle during sleep when they were young and snacking frequency), oral hygiene practices (age in which tooth-brushing was started, tooth-brushing frequency and use of fluoride toothpaste), and utilization of dental services were collected in the baseline survey. Information on parents' oral health knowledge and family socio-demographic characteristics were also collected. At the 24-month follow-up, results showed that the prevalence of caries experience and mean dmft score increased from 30.7% and 1.2 at baseline to 41.1% and 1.9 respectively. Overall, one third of preschool children developed at least one new caries with the mean caries increment of 0.9 (range from 0 to 11). The caries increment of children who used nursing bottles during sleep was 1.58 times compared with that of children who did not use. In addition, children whose tooth-brushing began after 12 months, who took snack once or more daily, and whose parents had 9 or fewer years of educational attainment had significantly higher caries increment than their respective counterparts.

While new caries development of Hong Kong preschool children from ages of 3-4 to 5-6 years was low, early childhood caries is totally preventable. Parents and carers should understand that young children's teeth are more susceptible to decay and thus take appropriate measures to protect their teeth, such as avoidance of putting young children to bed with a nursing bottle, reduction in snacking frequency and encouragement of tooth-brushing habits starting before 12 months of age.

[Source: Wong MCM, Lu HX and Lo ECM. Caries increment over 2 years in preschool children: a life course approach. *Int J Paediatr Dent* 2011 Jul 19. doi: 10.1111/j.1365-263X.2011.01159.x]



Data Brief

Oral cancer is not uncommon in Hong Kong.

Between 2000 and 2009, Hong Kong recorded on average 458 new cases of cancers of the lip, oral cavity and pharynx (except nasopharynx) each year. Of the 511 new cases of cancers of the lip, oral cavity and pharynx in 2009, males accounted for 65.2% and people aged 65 and above accounted for 41.5%.

To reduce the risk of developing oral cancer, members of the public are urged to observe good oral hygiene, avoid smoking (including cigarettes, pipes, cigars and smokeless tobacco) and excessive alcohol consumption. Besides, eating a diet high in fruit and non-starchy vegetables or foods containing carotenoids may probably lower the risk of oral cancer. If having a mouth ulcer that does not heal within three weeks, or there is unexplained numbness in the mouth or face, or any persistent discomfort or swelling in the mouth, visit a dentist for a professional examination.

Number (Incidence rate*) of new cases of cancers of the lip, oral cavity and pharynx (except nasopharynx) by sex and age group, 2009

Age group	Male	Female	Total
19 and below	- (-)	2 (0.3)	2 (0.2)
20-44	34 (2.9)	36 (2.4)	70 (2.6)
45-64	161 (15.7)	66 (6.2)	227 (10.9)
65 and above	138 (33.3)	74 (15.4)	212 (23.7)
Total	333 (10.1)	178 (4.8)	511 (7.3)

Note: * Rate per 100 000 population of respective sex and age group.

Sources: Hong Kong Cancer Registry of the Hospital Authority, Census and Statistics Department and Department of Health.

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Non-Communicable Diseases (NCD) WATCH is dedicated to promote public's awareness of and disseminate health information about non-communicable diseases and related issues, and the importance of their prevention and control. It is also an indication of our commitments in responsive risk communication and to address the growing non-communicable disease threats to the health of our community.

The Editorial Board welcomes your views and comments. Please send all comments and/or questions to so_dp3@dh.gov.hk.