

ORAL HEALTH IS BETTER HEALTH

**Oral Health Guidelines
for Victorians**

OCTOBER 2003

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Glossary of Terms

Dental Caries:	Disease of the teeth resulting in demineralisation, cavitation and breakdown of calcified dental tissues by microbial activity.
Dental Decay:	See dental caries
Gingivitis:	Inflammation of gingivae (gums).
Periodontitis:	Disease of the gum or bone.
Plaque:	A sticky bacterial film that coats the teeth.
Calculus:	Plaque that has hardened onto the tooth - sometimes known as tartar.
Dentifrice:	A cleaning agent; eg: toothpaste.
Professional Advice:	Advice given by registered dental providers including dentists, dental specialists, dental therapists, dental hygienists and dental prosthetists.
Dentate:	Having some or all of one's own natural teeth.
Edentate:	Having all natural teeth missing.
Sealant:	Plastic coatings, which bond to the biting surface of the back teeth, providing protection from dental decay.

Introduction

Oral Health Guidelines for Victorians (DHS 2003) has been developed by the Victorian Oral Health Promotion Strategy Partnership Group (OHPSPG) convened by the Department of Human Services Victoria (DHS). The role of the OHPSPG is to provide leadership in the implementation of the statewide oral health promotion strategy *Promoting Oral Health 2000-2004: Strategic Directions and Framework for Action (DHS 2000)*.

The Victorian Oral Health Promotion Strategy (OHPS) outlines a framework for oral health promotion activity with the aim of preventing and controlling oral disease and promoting oral health amongst the Victorian population. The significant personal burden of oral disease due to the associated pain and discomfort may result in difficulty eating and a poor diet and consequently affect appearance, self-esteem and quality of life. The associations between dental disease and specific medical conditions are becoming more established.¹ As good oral health is integral to general health and wellbeing, improvements in oral health will result in improvements to individuals' general health.²

These Guidelines include key oral health messages and supporting information. They have been developed as part of implementation of OHPS Action Plan 1.1 which is to "define a suite of agreed oral health promotion messages which can be used widely in the community".

The messages are derived from a number of sources, predominantly *Evidence-Based Health Promotion: Resources for Planning No.1 Oral Health (DHS 2000)*. Evidence based dentistry has been described as the practice that integrates evidence, clinical experience and patient preference.³

Other sources of material include:

- National Health and Medical Research Council. National Dietary Guidelines paper Dietary Guidelines for Australians. Draft 2001.
- Health Development Agency. The Scientific Basis for Dental Health Education-A policy document. (revised 4th edition). London: Health Development Agency 2001.
- Proceedings of the International Dental Association's Second World Conference on Oral Health Promotion. London: August 1999.
- Department of Human Services Victoria. Information Bulletin: Fluoridation of Water Supplies and Your Health. Melbourne: Department of Human Services, 2002.
- Department of Human Services Victoria Information About Water Fluoridation: Fluoride Strengthens Teeth Throughout Life. Melbourne: Department of Human Services, 2002.
- A web and literature search.

¹ Australian Health Ministers' Advisory Council Steering Committee for National Planning for Oral Health . Oral health of Australians: National planning for oral health improvement: Final Report. South Australian Department of Human Services on behalf of the Australian Health Ministers Conference, 2001.

² Department of Human Services Victoria. Promoting Oral Health 2000-2004: Strategic Directions and Frameworks for Action. Melbourne: Department of Human Services Victoria,1999.

³ Grace M. Evidence - Based dentistry. British Dental Journal 2002; 193:(10) 545-6.

Comments were also invited from dental stakeholders including

- Australian Dental Association Vic Branch.
- Victorian Dental Therapists Association.
- Australian Dental Hygienists Association Vic Branch.
- Dental Assistants' Association of Victoria.

A wide variety of oral conditions are evolving in clinical dentistry. The major oral health problems are dental caries, gum diseases, oral cancers and dental trauma. There is no one single factor that can prevent each condition. Rather, there are ranges of risk factors, which on balance, either favour the initiation and progress of the disease, or prevent or control the progression of disease. Most oral diseases involve long-term, chronic disease processes and a complex relationship between body resistant factors, personal hygiene, behavioural factors and social environments.

Although continued research is still required to completely understand interactions of the multi-causal and multi-preventive factors in these diseases, the current level of our scientific evidence permits us to identify key foundations to prevention. This approach is represented in the messages.

The aim of this document is to provide clear and simple oral health messages which can be widely disseminated in the community with the ultimate goal of contributing to the improvement of oral health for all Victorians. Oral health messages should evolve in the light of new knowledge. The messages were endorsed by the OHPSPG in May 2003 and will be reviewed and updated periodically by the OHPSPG. If you would like to make comment on this document please contact either:

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Included at the back of the document is a list of websites for those seeking further information about oral health promotion.

Oral Health Promotion Messages

- For a Healthy Mouth -

Eat Well

- Enjoy a wide variety of nutritious foods.
- If you eat sugary foods and sweets, limit their intake – especially between meals.
- Enjoy healthy snacks.

Drink Well

- Drink plenty of tap water – especially if fluoridated.
- If you drink acidic and sugary drinks such as soft drinks, sports drinks, cordials and fruit juices, limit their consumption and frequency.
- Milk and flavoured milks are preferable to other sugary drinks.
- Baby bottles should only contain expressed milk, infant formula or water.
- Introduce a cup to an infant by 6-8 months.

Clean Well

- Clean your teeth at least twice a day after meals.
- Brush gently and thoroughly with a fluoride toothpaste and soft compact head toothbrush.

Children:

- Use a low fluoride toothpaste from two to six years of age unless otherwise recommended by a dental professional.
- An adult should assist a young child to brush.

Adults:

- Seek advice about cleaning between your teeth.
- Clean dentures thoroughly every day.

Dental Visits

- Have regular dental checkups - don't wait for a problem.
- Dental checkups start with toddlers.
- Seek advice about how often you should have a dental check-up.
- Those without natural teeth also need checkups.
- Don't delay if you have a problem – have it checked.
- Soon after adult back teeth appear, have them checked, as they may need sealants.

Healthy Habits

- Quit smoking for good.
- Limit your alcohol intake if you choose to drink.
- If you can't clean your teeth, chew sugarless gum after meals.
- Protect your face from the sun.

Play Safely

- Wear a professionally fitted mouthguard when playing and training for sport where there is a risk of dental injury.
- Some sports and recreational activities require a full-faced helmet or face guard.

Oral Health Promotion Message 1

Eat Well

- Enjoy a wide variety of nutritious foods.
- If you eat sugary foods and snacks, limit their intake - especially between meals.
- Enjoy healthy snacks.

Dental caries is a diet related disease caused by the action of organic acids on the enamel of the tooth surface. The acid is produced from sugars in the diet and by bacteria within a soft layer called plaque that covers the tooth surface. Sugars are rapidly converted to acid by the bacteria in plaque. The plaque also helps to hold the acid in contact with the tooth causing demineralisation and eventual tooth destruction.

The sugars most responsible for dental caries are non-milk extrinsic sugars. These sugars are added to food and drinks during processing, manufacture or preparation. The common sugars are sucrose, glucose, maltose and fructose. Confectionery, soft drinks, cakes, biscuits and table sugar (added to tea and coffee) are often consumed between meals and their frequent consumption is strongly linked to dental caries. Sugars naturally present in fruit and vegetables are considered relatively unimportant as a cause of dental decay.⁴

It is the frequency of consumption of sugary foods and drinks that constitutes the risk rather than the amount.⁵ Foods and drinks containing added sugars should be limited, especially between meals. If consumed, they are best eaten at mealtimes rather than between meals.⁶

Snacks and drinks should be free of added sugar whenever possible. Children in particular need frequent intake of food and should be encouraged to snack. Suggested snacks include fresh or stewed fruit, vegetable sticks, yoghurt, custard, plain popcorn, muffins, soups and cheese.

Foods such as cheese or milk that contain casein can assist in the prevention of dental decay. Both casein and whey protein appear to be involved in the reduction of enamel demineralisation.⁷ Chewing cheese stimulates saliva flow that in turn buffers the acid formed by plaque. The high calcium and phosphorus content appears to be another factor in the decay preventing mechanism of cheese.

⁴ Health Development Agency. The Scientific Basis for Dental Health Education-A policy document (revised 4th edition). London: Health Development Agency, 2001.

⁵ Hancocks, S ed. The Proceedings of the FDI's Second World Conference on Oral Health Promotion. International Dental Journal 1999; 3/00:15-174.

⁶ Health Development Agency. The Scientific Basis for Dental Health Education-A policy document (revised 4th edition). London: Health Development Agency, 2001.

⁷ Herod E L .The effect of cheese on dental caries: a review of the literature. Australian Dental Journal 1991; 36(2): 120-5.

Oral Health Promotion Message 2

Drink Well

- Drink plenty of tap water – especially if fluoridated
- If you drink acidic and sugary drinks such as soft drinks, sports drinks, cordials and fruit juices, limit their consumption and frequency.
- Milk and flavoured milks are preferable to other sugary drinks.
- Baby bottles should only contain expressed milk, infant formula or water.
- Introduce a cup to an infant by 6-8 months.

Water fluoridation is recognised as an effective method of preventing dental caries.⁸ Fluoride is a naturally occurring element found in rocks, soil and plants.⁹ Many foods and some water supplies contain naturally occurring fluoride. Water fluoridation is the adjustment of the natural levels of fluoride in the water supply to the levels recommended for optimal dental health benefits. In Victoria, the optimal level of fluoride is one milligram of fluoride for every litre of water (1ppm).

Dental decay develops when sugar containing foods are metabolised by bacteria in the mouth resulting in acid on the tooth surface. The acid removes microscopic amounts of calcium, phosphates and carbonates from the tooth enamel into the plaque and saliva surrounding the tooth.

Fluoride in saliva interacts at the tooth surface with these minerals and salts to re-crystallise or re-mineralise the enamel attacked by the acid. It is a constant supply of a low level of fluoride within the saliva, which is most beneficial to the prevention of dental decay and the microscopic repair of any lost minerals. Fluoride at an optimal level in the water supply provides the ideal, constant "repair-kit" for all people exposed to fermentable sugars within their diet.

Fluoride protects both developing and erupted teeth against dental caries, therefore people of all ages benefit. The presence of fluoride before the teeth erupt leads to structural improvements that render the tooth more resistant to later acid attack. In the post eruptive phase, fluoride promotes remineralisation of enamel lesions before cavities become permanent.¹⁰

Although approximately 75% of Victorians drink water containing either naturally occurring or added fluoride, many rural and regional areas are not optimally fluoridated.¹¹ Victorians living in these areas are disadvantaged with respect to their dental health when compared to people living in Melbourne.¹²

The issue of water fluoridation has an extensive research base covering a period of more than 50 years. The World Health Organization concluded that water fluoridation is safe and cost effective and should be introduced and maintained

⁸ Department of Human Services Victoria. Evidence-based health promotion resources for planning: no 1-oral health. Melbourne: Department of Human Services, Jan 2000.

⁹ National Health and Medical Research Council. Review of water fluoridation and fluoride intake from discretionary fluoride supplements: review for NHMRC. Melbourne: Royal Melbourne Institute of Technology and Monash University, 1999.

¹⁰ National Health and Medical Research Council. Review of water fluoridation and fluoride intake from discretionary fluoride supplements: review for NHMRC. Melbourne: Royal Melbourne Institute of Technology and Monash University, 1999.

¹¹ Department of Human Services Victoria. Fluoridation: a guide to fluoride levels in water supplied to Victorian towns and cities. Melbourne: Department of Human Services Victoria, June 2002.

¹² Data from Dental Health Services Victoria, School Dental Service, 2002.

wherever socially acceptable and feasible.¹³ Other organisations to endorse water fluoridation include the National Health and Medical Research Council, the Australian Medical Association, the Australian Dental Association, the Australian College of General Practitioners and the Public Health Association of Australia. Water fluoridation has been named by the United States Centers for Disease Control as one of the 10 great public health achievements in the United States in the 20th century.¹⁴

Water should be encouraged as the drink of choice between meals. Milk and flavoured milk are preferable to other sweetened drinks and citrus juices as they are less acidic and contain casein, calcium and phosphorus.

There has been a marked increase in the consumption of natural fruit juices and acidic and sweetened drinks. The frequent exposure of the teeth to any acidic food or drink may cause loss of enamel by dental erosion. While caries affects the surfaces of the teeth where plaque stagnates, erosion affects the plaque-free surfaces, typically the front and back of the upper and lower front teeth and the biting surface of the lower molars. Artificially flavoured carbonated drinks are still very acidic and should be considered with this group. When consumed, these drinks should be part of a meal rather than between meals.¹⁵

Breastfeeding is the preferred method of infant feeding and reduces the risk of early childhood caries. With early childhood caries the front teeth appear brown or black and may be decayed right down to gum level. Early childhood caries is generally caused by the inappropriate use of the baby bottle by filling it with fruit juice, soft drinks and/or cordial. Feeding should always be done with adult supervision and the nursing bottle should be taken away when the infant has had enough. The baby bottle should only be filled with breast milk, appropriate infant formula or boiled water. A feeding cup should be introduced to the baby by 6 to 8 months.¹⁶

¹³ World Health Organization Expert Committee on Oral Health and Fluoride use. Fluorides and oral health: report of a WHO expert committee on oral health status and fluoride use. Geneva: World Health Organization, 1994

¹⁴ Centers for Disease Control and Prevention. Ten great public health achievements-United States, 1990-1999. *Morbidity and Mortality Weekly Report* 1999 (12)241-243.

¹⁵ Health Development Agency. *The Scientific Basis for Dental Health Education-A policy document* (revised 4th edition). London: Health Development Agency, 2001.

¹⁶ Department of Human Services. *Dental Health for Children 0-6 Years: Information for Maternal and Child Health Nurses*. Melbourne: Department of Human Services, 1998.

Oral Health Promotion Message 3

Clean Well

- Clean your teeth at least twice a day after meals.
- Brush gently and thoroughly with a fluoride toothpaste and soft compact head toothbrush.
Children:
- Use a low fluoride toothpaste from two to six years of age, unless otherwise recommended by a dental professional.
- An adult should assist a young child to brush.
Adults:
- Seek advice about cleaning between your teeth.
- Clean dentures thoroughly every day

There is considerable evidence to support the provision of knowledge and teaching skills in oral hygiene.¹⁷ Bacterial plaque has an important role in the cause of dental caries, gingivitis and periodontitis. Effective removal of dental plaque can result in the prevention or reduction of dental caries and gingivitis.¹⁸

There is a number of diseases, both acute and chronic that affect the gums and surrounding bone and fibres that support the teeth. The most common is the chronic adult periodontitis group. These conditions can begin in childhood as an inflammation of the gum margin with redness, swelling and some bleeding on brushing. Without adequate oral hygiene the disease can progress and periodontitis may develop. In this stage, the bone and fibres that surround the teeth are progressively destroyed. Where the gum disease has progressed to this point professional intervention may be required to restore the tissue to a form easily maintained by cleaning at home.

Two factors may promote the severity of gingival inflammation and the progression of the disease process. The first important factor is the general health of the individual. Hormonal changes such as those associated with pregnancy or adolescence, specific disorders such as diabetes and a variety of conditions that impair the proper functioning of the immune system will impact on the presentation and progression of these conditions. The link between smoking and periodontal disease has also been well established.¹⁹ The second factor is the ability of the individual to maintain good oral hygiene and plaque removal. The shape and position of teeth, presence of calculus on teeth and the roughness of teeth or fillings may all prevent the ability to meticulously clean the teeth. Professional advice is required regarding removal of rough surfaces and calculus and identifying those areas an individual is having difficulty in cleaning and to provide specific advice on oral health.

Thorough tooth brushing, especially to remove dental plaque at the junction of teeth and gums, is the most effective method of maintaining healthy gums and preventing periodontal diseases. A gentle scrub technique with a soft small

¹⁷ Department of Human Services Victoria. Evidence-based health promotion resources for planning: no 1-oral health. Melbourne: Department of Human Services, Jan 2000.

¹⁸ Hancocks, S ed. The Proceedings of the FDI's Second World Conference on Oral Health Promotion. International Dental Journal 1999; 3/00:15-174.

¹⁹ Health Development Agency. The Scientific Basis for Dental Health Education-A policy document (revised 4th edition). London: Health Development Agency, 2001.

headed tooth brush is effective for most people and is easy to teach.²⁰ Care should be taken during tooth brushing not to damage either the tooth surface or the gum tissue. If dental plaque is not removed from around the neck of the tooth, gingivitis may progress as the bacteria cause the gum to separate from the tight junction with the tooth itself.

There is evidence to support dental flossing as an adjunct to tooth brushing for control of gingivitis in adults.²¹ The use of interdental cleaning aids is of value if used correctly and they will usually require professional advice and instruction.²² Dental floss should be used as an addition to tooth brushing and not as an alternative.

Maintenance of an individual's oral health through their personal hygiene requires that they have an appropriate level of resources, skill and understanding. The use of an electric toothbrush may assist some people in maintaining oral health. Young children, older people and people with disabilities may require assistance in maintaining good oral hygiene and plaque control.

Most children have insufficient manual dexterity to brush effectively until they are at least six or seven years of age. Parents should assist young children to brush their teeth thoroughly at least twice a day using a small soft toothbrush. The best way to do this is to sit the child on the lap or to stand behind the child and tilt the child's head upwards so that all tooth surfaces can be brushed using a gentle scrubbing motion.²³

Denture wearers need to ensure that they maintain a healthy mouth and that any remaining teeth are safeguarded. Routine care should include cleaning the denture after every meal and before going to bed. A small soft brush and denture toothpaste or mild liquid soap should be used to clean all the denture surfaces before rinsing the denture and placing it in a container of water overnight. To remove calculus, soak plastic dentures overnight in one part white vinegar and two parts water or have them professionally cleaned. The remaining natural teeth should be brushed at least twice daily with fluoride toothpaste.²⁴

Tooth brushing alone is not sufficient to prevent dental decay. Fermentable sugars are constantly flowing over teeth during snacking, drinking and eating. Fluoride therapies therefore provide additional protection against acid attacks on the tooth enamel. Fluoride incorporated into teeth during development is important as well as the daily presence of fluoride in plaque and saliva.²⁵ Therefore regular exposure to fluoride in drinking water, toothpaste and in some cases, topical preparations is important for dental caries prevention.

The generic ability of fluoridated toothpastes to reduce dental caries has been well demonstrated for at least 30 years.²⁶ Fluoride toothpastes contain different levels of fluoride for different age groups and different applications.

²⁰ Health Development Agency. The Scientific Basis for Dental Health Education-A policy document (revised 4th edition). London: Health Development Agency, 2001.

²¹ Department of Human Services Victoria. Evidence-based health promotion resources for planning: no 1-oral health. Melbourne: Department of Human Services, Jan 2000.

²² Health Development Agency. The Scientific Basis for Dental Health Education-A policy document (revised 4th edition). London: Health Development Agency, 2001.

²³ Department of Human Services. Oral Health Promotion: A Practical Guide for Children's Services. Melbourne: Department of Human Services, 2000.

²⁴ Department of Human Services. Oral Health for Older People: A Practical Guide for Aged Care Services. Melbourne: Department of Human Services Victoria, 2002.

²⁵ Singh K, Spencer AJ, Armfield, J. Relative Effects of Pre- and Post-eruption Water Fluoride on Caries Experience of Permanent First Molars. Journal of Public Health Dentistry 2003;63 (1): 11-19.

²⁶ Department of Human Services Victoria. Evidence-based health promotion resources for planning: no 1-oral health. Melbourne: Department of Human Services, Jan 2000.

Low fluoride toothpaste is encouraged for young children to reduce the risk of dental fluorosis.²⁷ A pea-sized amount of low fluoride toothpaste (500ppm or less) should be smeared onto the toothbrush. Children should be encouraged to spit the toothpaste out. Professional dental advice should be sought about the use of fluoride toothpaste for children under two years of age.

Professional dental advice should be sought about the use of fluoride supplements. Fluoride supplements may be recommended for individuals at high risk of dental caries in a non-fluoridated area.

²⁷ National Health and Medical Research Council. Review of water fluoridation and fluoride intake from discretionary fluoride supplements: review for NHMRC. Melbourne: Royal Melbourne Institute of Technology and Monash University,1999.

Oral Health Promotion Message 4

Dental Visits

- Have regular dental checkups - don't wait for a problem.
- Dental check-ups start with toddlers.
- Seek advice about how often you should have a dental checkup.
- Those without natural teeth also need check-ups.
- Don't delay if you have a problem – have it checked.
- Soon after adult back teeth appear, have them checked, as they may need sealants.

The value of oral examinations at regular and appropriate intervals in maintaining oral health through early intervention and contacts for preventive counselling, is established.²⁸ Early detection of dental decay, periodontal diseases and oral cancers can lead to immediate preventive interventions, which can subsequently control the progress of these diseases.

The problematic question is the definition of professional dental recall times. The scientific literature does not provide a specific answer. Any message around the notion of what constitutes an acceptable public health message to the population, must be qualified by risk-status. The period between oral examinations must be flexible and based on a professional assessment of the risk from oral disease.²⁹

For those people without teeth, regular dental checks are still important to assist with the early detection of oral problems. Some conditions may not be painful or may become painful only after an extended period.³⁰

Dental sealants were developed in the early 1970's for caries prevention on biting surfaces of the back teeth. A dental sealant is a plastic film professionally applied to the pits and fissures of the back teeth. The sealant assists in the prevention of access of plaque and plaque acids to the enamel surface of teeth.

Dental sealants are of demonstrated value in the prevention of dental caries.³¹ However, they are only effective on biting surfaces of teeth and should be seen as part of a comprehensive preventive program.³²

If sealants are required, they should be applied as soon as possible after the tooth appears in the mouth. The first adult molars appear behind the baby teeth at about six years of age. The second adult molars appear at the back of the mouth at around twelve years of age.

²⁸ Department of Human Services Victoria. Evidence-based health promotion resources for planning: no 1-oral health. Melbourne: Department of Human Services, Jan 2000.

²⁹ Health Development Agency. The Scientific Basis for Dental Health Education-A policy document (revised 4th edition). London: Health Development Agency, 2001.

³⁰ Department of Human Services. Oral Health for Older People: A Practical Guide for Aged Care Services. Melbourne: Department of Human Services Victoria, 2002.

³¹ Department of Human Services Victoria. Evidence-based health promotion resources for planning: no 1-oral health. Melbourne: Department of Human Services, Jan 2000.

³² Health Development Agency. The Scientific Basis for Dental Health Education-A policy document (revised 4th edition). London: Health Development Agency, 2001.

Oral Health Promotion Message 5

Healthy Habits

- If you smoke, quit for good.
- Limit your alcohol intake if you choose to drink.
- If you can't clean your teeth, chew sugarless gum after meals.
- Protect your face from the sun.

Oral cancers encompass cancers of the lip, tongue, gums, floor of the mouth and other parts of the oral cavity, mouth and pharynx. Oral cancer is more common in males than females.³³ The incidence of oral cancers increases with age.³⁴ In 2000, there were 644 new cases of oral cancer and 154 deaths due to oral cancers in residents of Victoria.³⁵

Although the cause of oral cancer is not completely understood, there are significant risk factors. Use of tobacco in all forms and heavy consumption of alcohol are major causal factors in oral cancers.³⁶ It is recognised that tobacco and alcohol have a synergistic effect on oral cancers, as tobacco and alcohol act together to increase their individual effects.³⁷ The combined effects of smoking and alcohol are linked to between 75% and 90% of all cases of oral cancer.³⁸ Solar ultraviolet radiation is a risk factor for cancer of the lip.³⁹

Counselling in smoking cessation is recommended. If cancer is not already present and smokers quit, the risk of developing cancer halves after three to five years and continues to decline⁴⁰. Regular oral examinations, particularly as people age, for early detection of oral cancers and referral are important.⁴¹

Chewing sugarless gum after meals has been shown to assist in the reduction of dental caries. The effect is related to the chewing action which increases the saliva flow buffers and flushes away the acidity from the mouth more quickly⁴².

³³ Department of Human Services Victoria. Promoting Oral Health 2000-2004: Strategic Directions and Frameworks for Action. Melbourne: Department of Human Services Victoria, 1999.

³⁴ Giles G, Thursfield, VJ. Canstat: Cancer in Victoria, 2000. Melbourne: Cancer Epidemiology Centre, Anti Cancer Council of Victoria.

³⁵ Giles G, Thursfield, VJ. Canstat: Cancer in Victoria, 2000. Melbourne: Cancer Epidemiology Centre, Anti Cancer Council of Victoria.

³⁶ Department of Human Services Victoria. Evidence-based health promotion resources for planning: no 1-oral health. Melbourne: Department of Human Services, Jan 2000.

³⁷ Johnson N. Tobacco use and oral cancer: a global perspective. Journal of Dental Education 2001; 65(4) 328-339.

³⁸ Watt R, Robinson M. Helping Smokers to Stop: A guide for the dental team. London: Health Education Authority, 1999.

³⁹ Cawson RA, Binnie, Barrett AW, Wright JM. Oral Disease Third Edition. Edinburgh: 15:7-8.

⁴⁰ US Department of Health and Human Services. The Health Benefits of Smoking Cessation. A report of the Surgeon General. Maryland: US Department of Health and Human Services, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. 1990.

⁴¹ Department of Human Services Victoria. Evidence-based health promotion resources for planning: no 1-oral health. Melbourne: Department of Human Services, Jan 2000.

⁴² Machiulskiene V, Nvad B, Baelum, V. Caries preventive effect of sugar-substituted chewing gum. Community Dentistry and Oral Epidemiology 2001;29 (4):278-288.

Oral Health Promotion Message 6

Play Safely

- Wear a professionally fitted mouthguard when playing and training for sport where there is a risk of dental injury.
- Some sports and recreational activities require a full-faced helmet or face guard.

Dental trauma can include both soft and hard tissue damage that includes injury to the gingiva (gum), tooth fractures of varying severity, tooth avulsion (loss of the whole tooth) and fractures of the lower jaw. Dental injuries are the most prevalent type of orofacial trauma sustained during participation in sports. The upper front teeth are the teeth most affected.⁴³

Although participation in contact sports such as football and hockey carry a risk of sustaining dental injuries, less obviously dangerous sports such as soccer, basketball and netball also carry risks.⁴⁴

The use of mouthguards in the prevention of trauma is well accepted.⁴⁵ Use of a professionally fitted, custom-made mouth guard should be encouraged during competition and practice. Custom-made mouthguards which are professionally fitted offer more sound protection than store-bought varieties.⁴⁶ Participants are also more likely to wear them as they fit comfortably and do not interfere with breathing and speech.

Some sport and recreational activities such as cricket, squash, skiing and BMX riding may require the additional protection of full faced helmets or face guards which offer greater protection to oral and other facial structures.

Principles of safety should also be applied when people engage in physical activities in an informal way, as the risk of dental injury continues to apply. Interventions which address the lack of knowledge and advocacy for safer play areas for children have been recommended.⁴⁷ Care in the design of school and public playgrounds is important. Consideration should be given to protective surfacing and age appropriate equipment. Children should be taught to play safely and be supervised by a responsible adult.

Where a dental injury is sustained, professional dental advice should be sought immediately.

⁴³ Jolly K, Brearley Messer L, Manton, D. Promotion of mouthguards among amateur football players in Victoria. *Australian and New Zealand Journal of Public Health* 1996; 20 (6) pp 630 –639.

⁴⁴ Newsome PRH, Dean DC, Cook, MS. The role of the mouthguard in the prevention of sports-related dental injuries: a review. *International Journal of Paediatric Dentistry* 2001;11:398-404

⁴⁵ Department of Human Services Victoria. Evidence-based health promotion resources for planning: no 1-oral health. Melbourne: Department of Human Services, Jan 2000.

⁴⁶ Newsome PRH, Dean DC, Cook, MS. The role of the mouthguard in the prevention of sports-related dental injuries: a review. *International Journal of Paediatric Dentistry* 2001;11:398-404

⁴⁷ Department of Human Services Victoria. Evidence-based health promotion resources for planning: no 1-oral health. Melbourne: Department of Human Services, Jan 2000.

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Useful websites for further information on oral health promotion

Australian Dental Association
<http://www.ada.org.au>

Australian Dental Association, Victorian Branch
<http://www.adavb.com.au>

Cochrane Collaboration
<http://www.update-software.com/clibng/cliblogon.htm>

Dental Health Services Victoria
<http://www.dhsv.org.au>

Department of Human Services
<http://www.dhs.vic.gov.au/phd/oral/>

National Health and Medical Research Council
<http://www.nhmrc.gov.au>

National Health Service: Health Development Agency
<http://www.hda-online.org.uk/>

National Oral Health Promotion Group
[http:// www.nohpg.org](http://www.nohpg.org)