

Joint Position Statement on

Interdisciplinary Collaboration between Accredited Practising Dietitians, Nutrition and Oral Health Professionals for Oral Health and Nutrition

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Endorsed by:



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Acknowledgement

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The Position

Accredited Practising Dietitians (APD), nutrition and oral health professionals¹ should strengthen their practice through interdisciplinary collaboration across the life course and in various work settings, by:

- establishing referral partnerships, integrated practice opportunities²,
- partnering on population health planning, interdisciplinary study and research at the tertiary level.

Background

The purpose of this Position Statement is to outline the importance of interdisciplinary collaboration between APDs, nutrition professionals and oral health professionals. To support the statement, this paper briefly summarises the evidence of synergy between oral health and nutrition across the life course, and makes recommendations for collaboration across a range of settings in the Australian context.

Oral health and nutrition have a symbiotic and bidirectional relationship, and influence health and wellbeing across the life course. Malnutrition is both a consequence and cause of poor oral health. The inability to chew and swallow food impacts nutrient intakes, while certain nutritional deficiencies or excesses impact oral health. Nutrition and diet affect the development and progression of oral diseases. Across the lifespan, intake of free sugars in the form of sweetened beverages, sugary snacks and processed foods increases overall energy intake. This can result in an unhealthy diet, weight gain and increased risk of dental caries (commonly known as tooth decay) and dental erosion, and other non-communicable diseases¹. Many prevalent health conditions, such as diabetes, obesity, and cancer, and dietary behaviours may impact oral health and nutrition.

Nutrition-related chronic diseases are the leading cause of ill health in Australia,² with over seven million people (35% of the Australian population) living with these diseases. This includes type 2 diabetes, cardiovascular disease, obesity, diet-related cancer, chronic kidney disease, mental health conditions², dental caries and periodontal disease³. Oral diseases are among the most common and costly health problems in Australia and dental caries, periodontal disease (gum disease), and oral cancer are the major contributors to poor oral health⁴. They can lead to pain and tooth loss and may affect chewing function which can result in dietary changes and under nutrition⁵.

Oral health and nutrition as determinant factors for quality of life are essential for good general health and share common social determinants and risk factors^{1,6}. In Australia, the population groups experiencing poorer oral health⁷ are consistent with those groups who experience the negative impacts of social determinants on food security, food and nutrient intakes, food purchasing decisions and, ultimately, compliance with Australian Dietary Guidelines⁸.

¹ Where the term “oral health professionals” is used it refers to dentists, dental assistants, hygienists, dental therapists, dental prosthetists and oral health therapists.

² This position paper focuses on referrals made between APDs and nutrition professionals and oral health professionals, however referral to, or communication with an individual’s GP or other members of the multi-disciplinary team may be warranted in certain circumstances.

Nutrition and oral health synergies

Across the life course, there are key physiological changes and behaviours that result in risks to nutrition and oral health. These are described in Table 1 along with fundamental advice to mitigate these risks. For each life stage, APDs, nutrition and oral health professionals should consider the existence of any medical condition or behaviour which impacts on oral health and nutrition. These conditions include diabetes, obesity, oral cancer, compromised immunity, mental health, disability, drug and alcohol use, inappropriate infant feeding practices and energy dense diets.

APDs are well positioned to consider oral health as part of comprehensive dietetic assessment and management. Similarly, oral health professionals should consider dietary assessment and nutrition as part of comprehensive care for clients.

See Appendix I for nutrition and oral health synergies for risk factors and advice.

Capacity building for interdisciplinary collaboration in oral health and nutrition

Interdisciplinary collaboration is addressed through capacity building to enable effective health promotion and disease prevention⁹. It involves actions to improve health at three levels: the advancement of knowledge and skills among practitioners; the expansion of support and infrastructure for health promotion in organisations and; the development of cohesiveness and partnerships for health in communities⁹. This Joint Position Statement aims to support capacity building and shared understanding among practitioners in oral health and nutrition through the advancement of knowledge and skills. Further action at organisational and community levels is required to support collaboration in oral health and nutrition practice, which can be advocated for by professionals, professional organisations and employers.

Recent research has shown that while oral health professionals and APDs have differences in knowledge about the effect of nutrition on oral health and consequently place different emphasis on addressing these behaviours in their clinical practice, both professions are willing to work collaboratively and recognise the value of doing so¹⁰.

Recommendations for interdisciplinary collaboration across the life course and in work settings

In recognition of the evidence-based synergy between nutrition and oral health and disease, APDs and other nutrition professionals and oral health professionals should work collaboratively to promote good oral health and nutrition practices.

Recommendation for interdisciplinary collaboration across the life course

APDs, nutrition professionals and oral health professionals have a duty of care to consider their clients overall best interests by offering integrated or bi-directional care between the two professional fields¹¹ across the life course. This involves establishing interdisciplinary referral partnerships and integrated practice opportunities. In order to build capacity, collaborative partnerships must be supported by organisations, including employers and professional groups, as well as at broader community and policy levels.

Both oral health and nutrition requirements vary across the life course and this should be taken into consideration when working collaboratively to address the person’s needs. APDs and nutrition professionals can promote improved oral health and wellbeing within the context of dietary advice relevant to a person’s life-stage, and consider appropriate dietary advice which minimises risks of oral disease. Oral health professionals can ensure dietary advice for oral disease prevention (e.g. reducing free sugars intake for dental caries prevention) is consistent with dietary guidelines¹² appropriate to the person’s stage of life.

Table 1: Interdisciplinary collaborative action across the life span in clinical practice of APDs, nutrition and oral health professionals.

| The Life Course | Interdisciplinary Collaborative actions |
|------------------------|---|
| Pregnancy | <ul style="list-style-type: none"> • Oral health professionals can refer pregnant women to an APD for dietary counselling during pregnancy to assist in management of hyperemesis as well as optimising eating patterns. • APDs and nutrition professionals can encourage pregnant women to attend a dental check-up and that it is safe to do so, and practice good oral hygiene during their pregnancy. |
| Early childhood | <ul style="list-style-type: none"> • Oral health professionals can refer infants and young children to an APD for dietary counselling to advise regarding establishing healthy eating practices and reducing exposure to cariogenic foods (fermentable carbohydrates). • APDs and nutrition professionals can encourage parents of infants and young children to have an oral health assessment. Dental caries can start as soon as the first baby tooth appears and an oral health assessment should be no later than two years of age. <p>Note: Currently the national oral health promotion messages for Australia recommends an oral health assessment by two years¹³. However, some states and territories recommend an earlier assessment. Peak professional bodies for dentists in Australia and the US recommend assessment when the first tooth erupts or by one year of age^{14,15}.</p> <ul style="list-style-type: none"> • APDs and nutrition professionals can encourage parents to ensure twice daily brushing of teeth from when the first tooth appears. |

| The Life Course | Interdisciplinary Collaborative actions |
|--|--|
| Adolescence and early adulthood | <ul style="list-style-type: none"> • Oral health professionals can consider the role of nutrition and eating disorders in adolescents and young adults' oral health, and arrange referral to an APD if oral disease is a consequence of eating disorders. • Dietary advice consistent with dietary guidelines should be provided and referral to an APD can be offered. • APDs and nutrition professionals can encourage adolescents and young adults to look after their oral health and see their oral health professional for dental care¹⁶. |
| Older Adults | <ul style="list-style-type: none"> • A dental practice in either the public or private sector needs a referral partnership with an APD to address nutrient deficiencies that affect oral health such as Vitamins D, C, A and calcium¹¹. • APDs in the public sector and private practice need referral partnerships with dental practices. • Both APDs, nutrition and oral health professionals can identify eating practices that put the older adult at risk of dental caries and nutritional deficiencies and promote a healthier diet ¹⁷ • Both oral health and nutrition professionals can share their promotional resources around oral health and nutrition (e.g. ^{18,19}) |

Recommendation for Interdisciplinary collaboration across work settings

Across all settings, oral health and nutrition professionals in Australia should work together. For APDs and oral health professionals working in clinical settings, this includes sharing advice and expertise plus the use of research as evidence for best practice, and through bidirectional referral relationships. In non-clinical settings (including population health, policy development, academia and research), APDs, nutrition professionals and oral health professionals should work in partnership to support interdisciplinary education, knowledge generation through research, evidence synthesis, and translation of knowledge into policy and public health practice.

Specific recommendations for collaboration within varied settings have been informed by existing Australian and International reports and literature.

Table 2: Recommended collaborative actions for APDs and nutrition professionals and oral health professionals across a range of work settings

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| <p>Clinical private practice settings</p> | <p>Accredited Practising Dietitians</p> <p>Consider oral health and risk factors for oral disease as part of comprehensive dietetic assessment and management, especially for those from the priority groups most at risk of poor oral health.</p> <ul style="list-style-type: none"> • Recognise any risks for oral health associated with nutritional management and provide oral health advice. • Have a basic set of practical skills and knowledge about oral disease prevention and oral health promotion to include in consultations ²⁰. • Recognise oral manifestations of disease and provide patients with guidelines to manage their oral health²¹. • Refer clients/patients to oral health professionals for assessment and management of oral manifestations and any risk factors associated with nutritional management. • Advocate for and support healthy vending and retail policies within their clinic’s local community setting, at local retail outlets and sporting clubs. | <p>Oral health professionals</p> <ul style="list-style-type: none"> • Have a basic set of practical skills and knowledge about food and eating patterns that impact on oral health. • Recognise risks for nutritional status associated with poor oral health (e.g. those with diabetes, malnutrition and other chronic illnesses). • Large dental practices to consider including an APD within the team or establishing formal referral networks and pathways. • Refer clients/patients to APDs for assessment and management of nutritional issues identified²². • Advocate for and support healthy vending and retail policies within their clinic’s local community setting. |
| <p>Community and population settings</p> | <p>Accredited Practising Dietitians and nutrition professionals</p> <ul style="list-style-type: none"> • Develop partnerships and referral pathways with oral health professionals in community and private settings ¹¹. • Deliver healthy eating messages, (tailored to the needs of population/priority groups), that incorporate good oral health practices ¹¹. • Collaborate with health promotion and oral health professionals to deliver evidence-based healthy eating and oral health promotion initiatives in settings such as early childhood services, schools, community services and workplaces ¹¹. • Support embedding healthy eating and oral health policies in key settings, such as early childhood services, schools, workplaces, sport and recreation centres, community and health services, to improve the availability and promotion of healthy food | <p>Oral health professionals</p> <ul style="list-style-type: none"> • Develop partnerships and referral pathways with APDs in community and private settings ¹¹. • Deliver oral health messages that incorporate healthy eating practices ¹¹. • Collaborate with APDs and other nutrition professionals to deliver evidence-based healthy eating and oral health promotion initiatives in settings, such as early childhood services, schools and workplaces ¹¹. • Collaborate with APDs to support embedding healthy eating and oral health policies in key settings, such as early childhood services, schools, workplaces, sport and recreation centres community and health services to improve the availability and promotion of healthy food and drinks, and reduce sugary foods and drinks |

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| | <p>and drinks, and reduce sugary foods and drinks (e.g. in retail outlets, vending machines, catering and events) ^{7,23}.</p> <ul style="list-style-type: none"> • Support the training of health promotion, early childhood, school and other health service staff to promote healthy eating and oral health, and strengthen referral pathways to oral health professionals ²³. • Advocate for access to drinking water in public places, for example, drinking water fountains in parks or at community events ⁷. • Advocate for the inclusion of healthy eating and oral health in preventive health and food policies and strategies at the local, regional, state or national level ⁷. For example, including in submissions to government consultations. | <p>(e.g. in retail outlets, vending machines, catering and events) ^{7,23}.</p> <ul style="list-style-type: none"> • Support the training of health promotion, early childhood, school and other health service staff to promote healthy eating and oral health, and strengthen referral pathways to APDs. • Identify opportunities to collaborate with other chronic disease programs with common oral health and nutrition goals (e.g. diabetes prevention) and adopt an integrated, common risk factor approach. • Advocate for access to drinking water in public places, for example, drinking water fountains in parks or at community events ⁷. • Advocate for the inclusion of healthy eating and oral health in preventive health policies and strategies at the local, regional, state or national level ⁷. |
| <p>Hospitals, residential institutional care and group homes settings</p> | <p>Accredited Practising Dietitians and nutrition professionals</p> <ul style="list-style-type: none"> • Consider oral health and risk factors for oral disease when undertaking nutritional assessment and refer to an oral health professional where appropriate. • Identify all potential risk factors that may influence oral health, including factors that may affect salivary health, such as hydration, medication, and medical conditions including anxiety/depression. • Support the training of staff e.g. personal care assistants, nursing staff and management about the importance of oral health in relation to nutrition and general health. • Provide basic advice on the importance of regular oral care for residents. • Consider oral health implications (risk factors and advice) when planning and reviewing meals, snacks and drinks on the menu. • Advocate for and support settings with embedding healthy eating and oral health policies, to improve the availability of healthy food and drinks, and reduce sugary foods and drinks for staff and visitors (e.g. in | <p>Oral health professionals</p> <ul style="list-style-type: none"> • Assess dietary risk factors when undertaking oral health assessments/screening and refer to an APD when appropriate ¹¹. • Support training of staff e.g. personal care assistants, nursing staff and management about the importance of oral health. • Provide advice on regular oral care to residents. • Provide basic advice on key healthy eating messages to staff and residents, recognising how oral health status might impact diet. • Support settings by embedding healthy eating and oral health policies, to improve the availability of healthy food and drinks, and reduce sugary foods and drinks for staff and visitors (e.g. in their retail outlets, vending machines, catering and events) ^{7,23}. • Oral health professionals who visit in aged care settings should communicate with the staff member or APD supporting the nutritional needs of the residents. Sharing dental information, such as who has dentures |

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| | <p>their retail outlets, vending machines, catering and events) ^{7,23}.</p> <p>Note: First two points are specifically for APDs</p> | <p>(partial or complete), implants, symptoms of dry mouth, and/or gum disease, will assist the APD in planning for micro or macro nutrient needs as well as encouraging care staff to support good oral hygiene practices that will enhance residents' enjoyment of food.</p> |
| <p>Education settings</p> | <p>Educators of Accredited Practising Dietitians and nutrition professionals</p> <p>Incorporate oral health and the multidirectional relationship between oral health and nutrition in tertiary education curricula when training nutrition and dietetics professionals and in inter-professional learning for example:</p> <ul style="list-style-type: none"> • Understand the relationship between food and eating patterns and the impact on oral health, oral anatomy and physiology, oral manifestations of systemic disease, and oral sequelae of medical treatments. • Incorporate oral health assessment tools as part of comprehensive dietetic assessment and management. There are examples of oral health assessment tools that APDs could use depending on the setting ²⁴⁻²⁶. • Review oral health policies and preventive strategies at the local, regional, state and national level. • Include oral health as part of ongoing workforce professional development. | <p>Educators of oral health professionals</p> <p>Incorporate oral health and the multidirectional relationship between oral health and nutrition in tertiary education curricula when training oral health professionals and in inter-professional learning for example:</p> <ul style="list-style-type: none"> • Understand the relationship between food and eating patterns and the impact on oral health. • Review appropriate resources to access credible nutrition advice and knowledge. • Review nutrition policies and strategies at local, regional, state and national levels that may align with oral health policies and strategies. • Advocate for certain subjects to be shared across the student body of APDs, nutritionists, dentists, dental assistants, hygienists, dental therapists, dental prosthetists and oral health therapists. |
| <p>Academic and research settings</p> | <p>Accredited Practising Dietitians and nutrition professionals</p> <ul style="list-style-type: none"> • Identify opportunities for joint collaboration with oral health professionals in nutrition and oral health research. • Support the development and implementation of interventions with a nutrition component as part of oral health research. • Provide expertise in the assessment of diet for nutrition and oral health research projects, including using validated and reliable tools and developing new assessment methods where required. • Involve oral health researchers in assessing simple oral health assessment tools that | <p>Oral health professionals</p> <ul style="list-style-type: none"> • Identify opportunities for joint collaboration with nutrition professionals in oral health and nutrition research²⁷. • Support the development and implementation of nutrition interventions which have the potential to positively impact on oral health status. • Provide expertise in the assessment of oral health outcomes for oral health and nutrition research projects, including using validated and reliable measures and developing new assessment methods where required. |

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| | <p>could be used by APDs and nutrition professionals.</p> <ul style="list-style-type: none"> • Support the interdisciplinary dissemination of relevant nutrition and oral health research findings to APDs, nutrition and oral health professionals. • Incorporate consideration of oral health status and management when relevant in nutrition research projects or when working with food manufacturers and industry or regulatory bodies. | <ul style="list-style-type: none"> • Involve nutrition researchers in the selection and use of appropriate methods to measure food and nutrient intakes, outcomes, behaviours and determinants (e.g. nutrition knowledge and food security). • Support the interdisciplinary dissemination of relevant oral health and nutrition research findings to oral health, APDs and nutrition professionals. • Advocate for incorporation of oral health status and management when relevant in nutrition research projects or when working with food manufacturers and industry or regulatory bodies. |
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Next Steps

1. Dissemination and promotion of this position statement to state and national level professional bodies, tertiary institutions offering dietetics, nutrition and oral health professional education and at a local level such as community health centres where APDs, nutrition and oral health professionals operate independently.
2. Advocate for interdisciplinary collaboration between APDs, nutrition and oral health professionals facilitating:
 - a. Incorporation of interdisciplinary learning and curricula development
 - b. Research around interdisciplinary collaboration and show casing best practice models of oral health and nutrition collaboration
 - c. Addressing any gaps in the research literature such as simple oral health assessment tools for APDs
 - d. Policy and system changes for collaborative action in the various work settings
3. Develop capacity building programs for both graduate APDs, nutrition and oral health professionals for increased awareness and integration of oral health and nutrition in clinical practice and interdisciplinary collaboration

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Postscript: A more detailed education resource is being developed to support this position statement.

Appendix I Nutrition and oral health synergies

For prevention advice the key texts are the Australian Dietary Guidelines for healthy food promotion, the suite of evidence based oral health messages for the Australian public¹³ and international literature.

Table 3: Synergies of oral health and nutrition across the life course

| Life stage | Risk factors | Key advice |
|------------------------|---|--|
| Pregnancy | <ul style="list-style-type: none"> • Physiological changes during pregnancy can affect gums and teeth. Gums become more susceptible to bleeding, teeth can become loose and saliva production may be reduced increasing risk of dental caries and erosion. • Nutrition and oral health may be affected by cravings and morning sickness (vomiting and or hyperemesis) leading to tooth erosion and decay. • Poor oral health (periodontitis) may impact pregnancy outcomes – premature and or low birth weight babies^{28,29}. • Avoidance of dental care during pregnancy due to safety concerns for foetus. | <ul style="list-style-type: none"> • Advise pregnant women to have a healthy diet adequate for the increased nutrient demands of pregnancy and foetal growth. Calcium and Vitamin D intake is necessary for optimal development of their babies’ bones and teeth³⁰. • Brush teeth twice a day with fluoride toothpaste, spit and don’t rinse. • Reduce risk of tooth erosion and damage to teeth after vomiting/reflux by: <ul style="list-style-type: none"> - Rinsing the mouth immediately with water. - Chew sugar free gum to stimulate saliva to neutralise and wash away acid. - Smear a little bit of toothpaste over teeth with a finger. - Wait for 60 minutes before brushing to avoid damaging softened enamel surface^{31,32}. • Dental care during pregnancy is safe and important. A referral should be made to public dentist (if eligible) or private dentist³³. |
| Early childhood | <ul style="list-style-type: none"> • Colonisation with cariogenic bacteria at an early age can be a contributing factor in early caries initiation. Once colonisation occurs, frequent exposure to sugar will activate the decay process. Colonisation may occur before the first tooth appears^{34,35} and may result in decay once teeth appear. • Some infant feeding behaviours result in pooling of milk around teeth and increase risk of early childhood caries, for example: <ul style="list-style-type: none"> - Baby sleeping with a bottle. | <ul style="list-style-type: none"> • Breastmilk is good for general health. Promote and support exclusive breastfeeding up to 6 months and introduction of nutritionally adequate and safe complementary foods at 6 months together with breastfeeding up to two years of age. • Infants should not be put to bed with a bottle. • Teats and pacifiers should not be dipped in sugary substances like honey or jam. • Introduce a feeding or regular cup at 6 months. |

| Life stage | Risk factors | Key advice |
|---|---|---|
| | <ul style="list-style-type: none"> - Prolonged use of feeding bottles and sippy cups (with teats) over 12 months of age. • Commercial infant foods (toddler snacks sold in pouches) contain significant added sugar – frequent consumption increases risk for dental caries and overweight³⁶. • Frequent consumption of sugary and acidic drinks such as fruit juice and soft drinks further increases risk of tooth decay, tooth erosion and overweight. • Delayed introduction of toothbrushing and reduced frequency of brushing (less than twice daily) allows the accumulation of plaque on teeth increasing risk of tooth decay. • Early childhood caries can affect food preferences and consistencies, which could lead to under nutrition in the child. • Inadequate exposure to fluoridated drinking water poses an oral health risk for children. | <ul style="list-style-type: none"> • By 12 months of age a child should be drinking all drinks from a cup. • Sugary sweetened drinks should be avoided. Juice is not recommended before 12 months of age. • Encourage use of fresh fruit and vegetables for snacks. • Limit use of commercial infant and toddler foods that have high levels of added sugar. • Establish a morning and night toothbrushing routine for children as soon as teeth appear. • Low fluoride toothpaste to be introduced from 18 months. Children should be encouraged to spit out the toothpaste after brushing and not to rinse. Standard adult fluoride toothpaste can be used from six years of age³⁰. • Dental caries can start as soon as the first baby tooth appears and an oral health assessment should be no later than two years of age. <p>Note: Currently the Oral Health Messages for the Australian Public recommends an oral health assessment by two years¹³. However, some states and territories recommend an earlier assessment. Peak professional bodies for dentists in Australia and the US both recommend assessment when the first baby tooth erupts or by one year of age^{14,15}.</p> <ul style="list-style-type: none"> • Choose healthy meals and snacks for young children that are low in free sugars²⁰. • Fluoridated tap water is an important source of fluoride for children and is encouraged for reconstitution of infant drinking formula. |
| <p>Adolescence and early adulthood</p> | <ul style="list-style-type: none"> • Poor food and beverage preferences: <ul style="list-style-type: none"> - High energy requirements lead to increased frequency of snacking. - Irregular meals, meals skipping replaced with energy dense fast foods. | <ul style="list-style-type: none"> • Promote regular meals aiming for minimum of two to three hours between eating occasions. • Encourage consumption of more substantial, healthy snacks between meal snacks (e.g. plain milk and |

| Life stage | Risk factors | Key advice |
|------------|--|---|
| | <ul style="list-style-type: none"> - Greater dependency on confectionary, soft drinks, energy and sports drinks high in sugar and acid contributes to dental caries and tooth erosion. - Regular consumption of sport drinks that are highly acidic and high in sugar carries the risk of dental caries and tooth erosion and overweight. • More likely to participate in risk-taking behaviours: <ul style="list-style-type: none"> - Alcohol, tobacco and recreational drug widely used, affecting both oral health and nutrition. Xerostomia, erosion of teeth, tooth decay, periodontal diseases, oral cancer and increased urge for high sugar snacking can result from such behaviour. • Eating disorders such as anorexia nervosa, bulimia and restrictive eating habits occurs in this life stage affecting both nutrition and oral health. Malnutrition and dental erosion can result. • Orthodontic appliance use can result in food being collected and trapped around the brackets resulting in plaque accumulation. • Oral hygiene and dental check-ups might be neglected due to limited income, drug and alcohol use. | <p>yoghurt, fresh fruit and vegetables) if this helps to decrease 'grazing' behaviours.</p> <ul style="list-style-type: none"> • Limit fast foods meals high in fats. • Limit sweet food to mealtimes when more saliva is produced. • Limit consumption of sugar sweetened beverages including carbonated drinks and fruit juices and instead promote water and whole fruit. • Referral to an APD to provide advice and support to those showing signs of eating disorders. • Encourage contact with programs such as QUIT, or local drug and alcohol programs for young people, when appropriate http://www.adin.com.au/help-support-services. • If vomiting occurs with binge drinking and eating disorders refer to the advice given in Pregnancy Life Stage. • Practise good oral hygiene and especially when orthodontic appliances are in use³⁷. This should include brushing after every meal with fluoride toothpaste. Use a toothbrush with small compact head and soft bristles. <ul style="list-style-type: none"> - Where it is not possible to brush after every meal (for example at lunch time), encourage rinsing with water or mouth rinse. - Avoid sticky and crumbly foods (sweet biscuits, potato crisps and tortilla chips) that can wedge between the orthodontic appliance and teeth. • For teenagers and adults at an elevated risk of developing dental caries, encourage to seek advice from an oral health professional regarding use of toothpaste containing a higher concentration of fluoride such as 5000ppm or fluoride mouth rinse³⁰. • For most sporting activities, plain water is adequate to prevent dehydration³⁸. |

| Life stage | Risk factors | Key advice |
|---------------------|---|---|
| | | <ul style="list-style-type: none"> - For junior sports, water is the best choice to keep the body cool, replace fluid lost through sweat, and help kids feel energised to play at their best³⁹. - If sports drinks are required (e.g. for professional athletes, higher intensity and/or prolonged exercise), they should be used carefully³⁸. Reduce contact with teeth⁴⁰. |
| Older Adults | <ul style="list-style-type: none"> • Older adults with tooth loss have a greater risk of malnutrition than those with a functionally adequate dentition⁴¹. • The production and quality of salivary is reduced. This can be further exacerbated by many medications resulting in dry mouth. • Dry mouth increases the risk of dental caries and may reduce the functionality of dentures impacting on the ability to eat and increasing risk of choking. • Age-related physical and mental difficulties due to stroke, arthritis, dementia and depression affects ability and desire to eat a healthy diet and maintain oral hygiene practices. • Access to dental care can be difficult due to transport, planning and access difficulties. • Reduced chewing efficiency and dietary changes result from few numbers of natural teeth, use of partial dentures or complete dentures and fewer pairs of opposing posterior teeth reduces chewing efficiency. The way older adults prepare food for easier chewing can affect the nutritional value of food and the person's nutritional status. • Constraints to the provision of holistic care including nutrition and oral health leads to malnutrition particularly amongst those with dementia and or disabilities⁴², as well as high levels of oral disease⁴³. | <p>Maintaining good oral hygiene includes:</p> <ul style="list-style-type: none"> - Brush morning and night with fluoridated toothpaste, encouraging “to spit and not rinse” after brushing. An electric toothbrush with oscillating head reduces plaque and gingivitis more than manual tooth brushing⁴⁴. - Carers should use an angled or three-sided toothbrush with those they assist to brush. - Seek dental advice, for those at elevated risk of dental caries, on use of high fluoride (5,000ppm sodium fluoride) toothpaste to inhibit the growth of bacteria in dental plaque and help remineralise enamel³⁰. - Drink plenty of water with meals and throughout the day to assist in clearing food debris from the teeth. - Clean dentures daily with brush and mild liquid soap under running water, to remove dental plaque and any denture adhesive. - Remove dentures overnight. Clean and place in dry and safe environment at night. - Dentures that are ill fitting, damaged or worn out should be replaced. <p>Maintaining good nutrition</p> <ul style="list-style-type: none"> - Limit eating sweet foods to mealtimes. |

| Life stage | Risk factors | Key advice |
|------------|--------------|--|
| | | <ul style="list-style-type: none"> - Encourage consumption of dairy products which are anticariogenic and foods that stimulate salivary flow, after meals. - Consider a texture modified diet for those who need to ensure adequate nutritional intake. - Consider oral health implications of available foods and drinks when reviewing residential care menus. - Seek medical advice in relation to Vitamin D. |

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