

# Resource for Carers Oral Health

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# Part I: ORAL HEALTH - Key Information

The link between **oral health, general health, and mental health** is well-documented, with growing evidence that poor oral health can contribute to or exacerbate systemic diseases and negatively influence psychological well-being. Below is an overview of these interconnections for your information.

Your local Dentist is the key provider of advice and support regarding oral health. As each person is different, as are their circumstances, there will also different strategies to achieve and maintain good oral health (SAX Institute, 2021).

Please consult your Dentist regarding your own personal dental health and the dental health of the person(s) you are caring for.

Please consult your Family Doctor (GP) or specialist with any questions you may have regarding your health and health care.

#### 1. Oral Health and the **Oral Microbiome**

The human mouth and throat host a complex and dynamic community of microorganisms, collectively known as the oral microbiome. This microbiome plays a crucial role in maintaining oral health and has significant connections to overall systemic health.

#### **Composition of the Oral Microbiome**

The oral microbiome comprises a diverse array of bacteria, fungi, viruses, and archaea<sup>1</sup>. These microorganisms form biofilms on various surfaces within the mouth, including teeth, gums, and the tongue. In a balanced state, *this microbial community contributes to oral health* by preventing the colonization of pathogenic species and aiding in the digestion of certain nutrients.

#### **Impact on Oral Health**

A balanced oral microbiome is essential for preventing dental diseases. Disruptions to this balance, known as dysbiosis. Dysbiosis is an imbalance of microorganisms in the body, also known as an unhealthy microbiome in the body. It can lead to conditions such as dental caries (cavities) and periodontal disease (gum disease). For instance, an overgrowth of acid-producing bacteria like Streptococcus mutans can demineralise tooth enamel, leading to cavities. Similarly, an increase in pathogenic bacteria in the gum line can trigger inflammation, resulting in periodontal disease.

#### **Link to Systemic Health**

Emerging research indicates that oral health is closely linked to systemic health. Bacteria from the oral cavity can enter the bloodstream through inflamed or diseased gum tissues, potentially contributing to systemic conditions. For example, certain oral bacteria have been associated with cardiovascular diseases, adverse pregnancy outcomes, and metabolic disorders. Maintaining a healthy oral microbiome through good oral hygiene practices is therefore vital not only for oral health but also for overall well-being.

#### **Factors Influencing the Oral Microbiome**

Several factors can influence the composition and balance of the oral microbiome, including diet, smoking, alcohol consumption, and overall lifestyle choices. For instance, high sugar intake can promote the growth of acidogenic bacteria, increasing the risk of dental caries. Conversely, a diet rich in fruits and vegetables can support a healthy microbial balance. Regular dental hygiene practices, such as brushing and flossing, are essential for maintaining this balance and preventing dysbiosis.

Maintaining microbial balance through proper oral hygiene, a balanced diet, and healthy lifestyle choices is essential for preventing disease and promoting overall well-being.

#### 2. Oral Health and General Health

Oral health is deeply interconnected with overall physical health. The mouth serves as a gateway to the body, and conditions in the mouth can impact systemic health. For example:

<sup>&</sup>lt;sup>1</sup> Archaea: a group of micro-organisms that are similar to, but evolutionarily distinct from bacteria.

- Cardiovascular Disease (CVD): <u>Periodontal disease</u> has been associated with an increased risk of heart disease and stroke. Chronic inflammation from gum disease may contribute to <u>atherosclerosis</u> (Dörfer et al., 2020).
- **Diabetes:** A bi-directional relationship exists between diabetes and periodontal disease, where poor glycaemic control worsens gum disease and vice versa (Chapple et al., 2018).
- **Respiratory Diseases:** Oral bacteria can be aspirated into the lungs, contributing to pneumonia and chronic obstructive pulmonary disease (COPD) (Scannapieco & Cantos, 2016).
- **Pregnancy Complications:** Periodontitis has been linked to pre-term birth and low birth weight (Ide & Papapanou, 2013).

#### 3. Oral Health and Mental Health

Poor oral health and mental health conditions reinforce each other in multiple ways. For example:

- **Depression and Anxiety:** Individuals with depression often have poorer oral hygiene, leading to higher rates of dental decay and periodontal disease (Kisely, 2016). Anxiety can also lead to conditions such as bruxism (tooth grinding), causing further oral health issues.
- **Eating Disorders:** Conditions like bulimia and anorexia can cause severe dental erosion due to repeated exposure to stomach acid (Lo Russo et al., 2019).
- **Cognitive Decline and Dementia:** Emerging evidence suggests a link between periodontal disease and cognitive decline in Alzheimer's disease (Dominy et al., 2019).

#### 4. General Health and Mental Health

General health and mental well-being are also closely linked. Chronic illnesses can lead to depression and anxiety, while mental health conditions can increase the risk of poor lifestyle choices, negatively affecting physical health. For example:

- Chronic Illness and Depression: Conditions like diabetes, cardiovascular disease, and chronic pain are linked to increased rates of depression (Moussavi et al., 2007).
- Stress and Immune Function: Chronic stress and anxiety can weaken the immune system, making individuals more susceptible to infections, including oral diseases (Glaser & Kiecolt-Glaser, 2005).

The interplay between oral health, general health, and mental health highlights the importance of an integrated approach to healthcare. Oral diseases can contribute to worsening systemic conditions and mental health disorders, while poor mental well-being can lead to neglect of oral hygiene, further worsening overall health.

Addressing these links requires a multidisciplinary strategy involving dentists, physicians, and mental health professionals.

## Part II: Oral Health for Persons with Intellectual Disability (ID)

## 5. Key Links Between Oral Health and Intellectual Disability

#### Poor Oral Hygiene and Increased Risk of Dental Diseases

- Individuals with ID often struggle with daily oral care due to motor impairments, cognitive limitations, or behavioural challenges. This leads to a higher prevalence of dental caries (cavities), gingivitis, and periodontitis (Anders & Davis, 2010).
- Dependence on Carers for oral hygiene may result in inconsistent or inadequate dental care (Faulks et al., 2017), due to some of the earlier mentioned challenges.

#### **Higher Prevalence of Malocclusion and Tooth Anomalies**

- Malocclusion (misaligned teeth) is more common in individuals with ID, especially in conditions such as Down syndrome and cerebral palsy (Oredugba, 2007).
- Congenital dental abnormalities, such as missing teeth (hypodontia) or extra teeth (supernumerary teeth), are also more frequent in some genetic disorders associated with ID (Morgan et al., 2012).

#### **Medication-Induced Oral Health Problems**

Many individuals with ID take long-term medications, such as antiepileptics, antipsychotics, and antidepressants, which can lead to:

- Xerostomia (dry mouth): Increases the risk of cavities and oral infections.
- Gingival hyperplasia (gum overgrowth): Common in those taking phenytoin for epilepsy (Rawson et al., 2019).
- Bruxism (tooth grinding): Seen in those taking certain psychiatric medications.

#### **Dietary Factors and Oral Health Risks**

- Individuals with ID may have sensory sensitivities or dietary restrictions that result in higher consumption of soft, processed, or sugary foods, increasing the risk of dental caries (McMillan & Goldsmith, 2021).
- Some may experience dysphagia (swallowing difficulties), affecting oral hygiene and leading to food retention in the mouth.

#### **Barriers to Dental Care**

- Fear and Anxiety: Individuals with ID may experience heightened dental anxiety, making routine dental visits challenging (Bertoli et al., 2020).
- Limited Access to Specialised Dental Services: Many dentists lack training in treating individuals with disabilities, leading to disparities in oral healthcare access.
- Communication Barriers: Those with nonverbal or limited communication skills may struggle to express oral pain, leading to undiagnosed or untreated conditions (Pezzementi & Fisher, 2005).

## 6. Examples of Health Conditions Associated with Oral Health Challenges

#### **Down Syndrome (DS)**

- Individuals with DS often have delayed tooth eruption, smaller-than-average teeth (microdontia), and high rates of periodontal disease due to immune dysfunction (Reuland-Bosma et al., 2011).
- Despite having fewer cavities than the general population, DS individuals experience severe gum disease at an earlier age, even with good oral hygiene. (National Down Syndrome Society., 2024 and Octafianto et al, (2023)

#### **Autism Spectrum Disorder (ASD)**

- Many individuals with ASD experience sensory sensitivities, making tooth brushing difficult and dental visits stressful.
- High rates of bruxism, self-injurious oral behaviours (e.g., biting lips or cheeks), and dietary-related dental issues are common (Loo et al., 2008).

#### Cerebral Palsy (CP)

- People who live with CP, do not necessarily have an intellectual disability. However, about 30 to 50 percent of children with Cerebral Palsy have some level of cognitive impairment - <u>Info here</u>.
   This can therefore add substantially to the overall medical complexity in CP. This can potentially impact maintaining oral health.
- CP is associated with poor muscle coordination, making oral hygiene difficult.
- Many individuals have malocclusion where the teeth are not properly aligned or the bite is irregular, enamel defects, and excessive drooling, which can lead to increased plaque accumulation and oral infections (Ghaith & Jaleel, 2021).

## **Recommendations for Improving Oral Health for**

- Specialised Training for Carers and Dentists: Education on adaptive oral hygiene techniques can improve daily care.
- Behavioural and Desensitization Techniques: Gradual exposure to dental visits can reduce anxiety.
- Fluoride Treatments and Sealants: Preventive measures can reduce the risk of cavities.
- Regular Dental Check-ups with Special Needs Dentists: Specialised professionals can better manage treatment challenges.

#### Part III: A Guide for South Australian Carers

Most Oral Health Care support principles apply to a variety of caring roles and age groups of persons Carers provide care for. Some strategies and resources in this section are of general value with some resources listed which focus on oral care strategies targeted to some of the additional support needs of specifically vulnerable persons. For example, additional support resources for people with Intellectual Disabilities, Dementia, or those who are frail.

## 7. The Importance of Oral Health - Summary

Maintaining good oral health is crucial for overall well-being. For individuals with intellectual disabilities, dementia, and similar conditions, oral health can significantly impact physical health, comfort, and quality of life. Challenges in self-care, communication barriers, and other factors often lead to neglected oral hygiene, resulting in various health issues.

#### **Impact on Physical Health**

Increased Risk of Dental Diseases: Individuals with intellectual disabilities or dementia are more susceptible to dental diseases due to difficulties in maintaining oral hygiene and accessing dental care.

#### **Systemic Health Complications:**

Poor oral health can exacerbate existing health conditions, such as cardiovascular diseases and diabetes, and may lead to respiratory infections.

#### Impact on Mental Health and Well-being

Poor oral health and mental health conditions reinforce each other in multiple ways.

#### Pain and Discomfort:

Dental issues can cause significant pain, leading to behavioural changes and decreased participation in daily activities.

#### **Nutritional Challenges:**

Oral discomfort may result in difficulty eating, leading to malnutrition or weight loss.

#### **Communication Barriers:**

Individuals with communication difficulties may struggle to express dental pain, leading to unaddressed issues and increased distress.

#### **Quality of Life:**

The concept of quality of life related to oral health requires consideration not only of factors such as malaise, pain or functional changes, but should also include emotional aspects and social functions associated with oral health. (Spanemberg, et al 2019)

## 8. General Strategies for Carers to Support Oral Health

As a Carer you have an important role in promoting and maintaining the oral health of the person you support. Here are evidence-based strategies and practical oral health care and support tips:

#### **Daily Oral Hygiene Practices**

- Assistance with Brushing and Flossing: Provide support with brushing twice daily using fluoride toothpaste and assist with flossing to remove interdental plaque.
- Use of Adaptive Tools: Utilise specialised toothbrushes, floss holders, or electric toothbrushes designed for individuals with limited dexterity or cognitive challenges.

#### **Regular Dental Check-ups**

- Schedule Routine Visits: Arrange regular dental appointments with professionals experienced in special needs dentistry. In Australia, some regions offer access to special needs dentists for individuals with intellectual disabilities or medical conditions requiring specialised care.
- Preparation for Appointments: Prepare the individual by explaining the process in clear terms. Using visual aids or social stories can help to reduce anxiety.

#### **Dietary Considerations**

- Limit Sugary Foods and Beverages: Encourage a balanced diet low in sugary snacks and drinks to prevent tooth decay.
- Promote Hydration: Ensure adequate water intake to maintain saliva flow, which helps protect against cavities and gum disease.

#### **Addressing Medication Side Effects**

- Manage Dry Mouth: Be aware that certain medications can cause dry mouth, increasing the risk of dental issues.
- Encourage regular sips of water and discuss saliva substitutes with a healthcare provider if necessary.

#### **Training and Education**

 Seek Professional Guidance: Engage in training sessions or workshops offered by dental health professionals to learn effective oral care techniques tailored to the needs of individuals with intellectual disabilities or dementia.

#### **Other Resources for Australian Carers**

- Inclusion Melbourne: Offers a comprehensive guide titled "Your Dental Health: A Guide for People with a Disability, Their Family Carers, Friends and Advocates," providing practical advice on maintaining oral health. Download: <a href="https://inclusionmelbourne.org.au/wp-content/uploads/2019/04/IM-Dental-Health-Publication-COMPLETE-2.pdf">https://inclusionmelbourne.org.au/wp-content/uploads/2019/04/IM-Dental-Health-Publication-COMPLETE-2.pdf</a>
- Dementia Australia: Provides resources on dental care for individuals living with dementia, including tips for carers. See: <a href="https://www.dementia.org.au/living-dementia/staying-healthy/dental-care">https://www.dementia.org.au/living-dementia/staying-healthy/dental-care</a>
- NDIS Quality and Safeguards Commission: Offers practice alerts and resources on oral health care for people with disabilities. Access: <a href="https://www.ndiscommission.gov.au/sites/default/files/2022-05/practice-alert-oral-health\_0.pdf">https://www.ndiscommission.gov.au/sites/default/files/2022-05/practice-alert-oral-health\_0.pdf</a>
- Supporting Frail Aged persons: SA Dental Service provides a toolkit called: Better Oral Health for Home Care via their website: <a href="https://www.dental.sa.gov.au/professionals/oral-health-resources/care-for-older-people-toolkit/home-care">https://www.dental.sa.gov.au/professionals/oral-health-resources/care-for-older-people-toolkit/home-care</a>
- SA Dental Service has a Special Needs Unit (SNU) which provides dental and oral health services for people with medical, physical and intellectual disabilities. Eligible adults with a disability or with complex medical conditions can be treated at all SA Dental clinics. However, clients with more complex special needs may require specialist care and may be referred to the

Special Needs Unit at the Adelaide Dental Hospital. Specialist services can only be accessed following a referral from a SA Dental clinic or directly from some medical providers. For more info, and resources, check out the Special Needs Unit website: .

https://www.dental.sa.gov.au/find-a-clinic/adelaide-dental-hospital#special-needs-unit-snu

• Interesting Video: There is also a very interesting podcast / video on the topic of oral health, the oral microbiome and its impact on general health etc. Worth to watch, despite it somewhat sensationalist title! See Dr Sampson's here: <a href="https://www.youtube.com/watch?v=p3fSwd1cF08">https://www.youtube.com/watch?v=p3fSwd1cF08</a>

By implementing these strategies and utilizing available resources, you can significantly improve the oral health and overall well-being of the individual in your care. Regular communication with dental professionals and staying informed about best practices in oral care will further support your efforts in providing effective care.

## 9. Special Section: Supporting frail older adults to maintain oral health.

Maintaining optimal oral health in frail older adults is crucial, as poor oral hygiene can contribute to various health complications, including systemic infections, malnutrition, and a decline in overall quality of life. Carers play a pivotal role in supporting the oral health needs of those people who are frail and ageing.

#### Key Strategies for Carers to support the oral health persons who are frail/aged:

- Daily Oral Hygiene: Assist with or supervise the brushing of teeth twice daily using fluoride toothpaste. Ensure dentures are cleaned regularly and removed at night.
- Conduct routine checks for signs of oral health issues, such as sores, swelling, or unusual changes in the mouth.
- Hydration: Encourage adequate fluid intake to prevent dry mouth, which can increase the risk of dental problems.
- Professional Dental Visits: Facilitate regular dental check-ups and seek prompt professional care for any dental concerns.
- Education: Utilise available resources to educate yourself about oral health care practices and stay informed about best practices.

#### Resources: Frail older adults

Several resources and strategies are available to assist Carers in providing effective oral care. Although some of these resources are designed to support the work of professional aged care support workers, they are also transferrable to in home strategies for Carers. If in doubt, please consult with health care professionals and dentists.

 The SA Dental Service has a comprehensive website and resource page addressing oral health of older people. You can access that site here:

https://www.dental.sa.gov.au/professionals/oral-health-resources/care-for-older-people-toolkit/residential-care/daily-oral-care

On that page (link above - scrolling down) there are comprehensive resources for those who provide daily oral health care for older adults. Special sections include, for example:

o a video discussing oral health's importance to general Health & hence the quality of life,

- o a guide for Carers of the elderly,
- o Dementia and oral care,
- o care instructions for the care of natural teeth,
- o the care of dentures and issues related to dry mouth due to medication or illnesses.
- Aged Care Dentistry website article: 'Special Considerations for Oral Health in the Elderly Population' provides an easy read insight into age related oral health issues:

See: https://www.agedcaredentistry.com.au/oral-health-for-elderly-population/

- Optimising Oral Health in Frail Older People. Published in the Australian Prescriber, this
  article discusses the link between oral health and systemic health, emphasizing the importance
  of regular oral care to prevent conditions like pneumonia and manage diseases such as
  dementia. It highlights the role of carers in ensuring consistent oral hygiene practices. See:
  <a href="https://australianprescriber.tg.org.au/articles/optimising-oral-health-in-frail-older-people.html">https://australianprescriber.tg.org.au/articles/optimising-oral-health-in-frail-older-people.html</a>
- Daily Oral Hygiene: Assist with or supervise the brushing of teeth twice daily using fluoride toothpaste. Ensure dentures are cleaned regularly and removed at night. This resource "Looking after your oral health" is aimed at aged care settings, but provides information that can be of value to Carers: <a href="https://www.agedcarequality.gov.au/sites/default/files/media/oral-health-daily-care-consumers.pdf">https://www.agedcarequality.gov.au/sites/default/files/media/oral-health-daily-care-consumers.pdf</a>

By staying proactive and informed, you as a Carer can make a significant difference in the oral health and overall quality of life for those you care for.

## 10. Special Section: Supporting Oral Health for Australian First Nation peoples.

Maintaining oral health among Aboriginal and Torres Strait Islander communities is essential for overall well-being. With access to specialist dental, general practitioners (GP) and general or Aboriginal Community Health Services often a particular issue for regional and remote communities in general, access issues are of particular concern to First Nations people who require specialist support and for their Carers.

A good reference point is the <u>National Guide to preventive healthcare for Aboriginal and Torres Strait</u>
<u>Islander people</u> – see Chapter 11 | Oral and dental health<sup>2</sup>

#### **Strategies for Carers and Community Members:**

- Daily Oral Hygiene: Encourage and assist with brushing teeth twice daily using fluoride toothpaste. Ensure dentures are cleaned regularly and removed at night.
- Regular Oral Assessments: Conduct routine checks for signs of oral health issues, such as sores, swelling, or unusual changes in the mouth.
- Hydration: Promote adequate fluid intake to prevent dry mouth, which can increase the risk of dental problems.

<sup>&</sup>lt;sup>2</sup> This national guide can be downloaded from the Royal Australian College of General Practitioners website: https://www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/national-guide

- Professional Dental Visits: Facilitate regular dental check-ups and seek prompt professional care for any dental concerns.
- Cultural Sensitivity: Utilize culturally appropriate resources and approaches to educate community members about oral health care practices.
- Contact Aboriginal Community Controlled Health Organisations ACCHOs for culturally appropriate services and advice further details in the resource section below.
- Discuss any health concerns with your health care professionals.

#### **Resources: First Nation Communities**

Several resources and strategies are available to assist individuals and Carers in promoting effective oral care within First Nation families and communities:

#### • Aboriginal Oral Health Program (AOHP) - SA Dental

The AOHP aims to improve the oral health of Aboriginal and Torres Strait Islander people by increasing oral health knowledge in the community and enhancing access to dental services. Initiatives include increasing the number of children accessing dental services and providing free priority dental services for eligible adults.

#### • Australian Indigenous HealthInfoNet - Oral Health Resources

This platform offers a comprehensive collection of resources related to oral health among Aboriginal and Torres Strait Islander people. It includes health promotion materials and practical tools designed to support oral health initiatives within Indigenous communities.

- Resources for Aboriginal and Torres Strait Islander Oral Health Dental Health Services Victoria This Victorian collection provides information relevant to Aboriginal and Torres Strait Islander oral health, including educational materials like "The Healthy Tribe I can help my body stay well" storybook, which aims to educate children about oral and general health. This resource contains information that could be of value for South Australian communities as well.
- Aboriginal Community Controlled Health Organisations (ACCHOs) play a critical role in supporting Aboriginal and Torres Strait Islander health in Australia. The table below identifies oral health services by ACCHOs in South Australia (Poirier, et al, 2022).

TABLE 1 Oral health programs delivered by Aboriginal Community Controlled Health Organisations in South Australia

Region (program/s)	Target population	Delivery model	Delivery setting	Delivered by	Mode of delivery
Port Augusta (1)	Women	In person	Community	Aboriginal Health Workers	Individual
APY lands (1)	All	In person	Dental clinic	Dental therapists	Individual
Adelaide (1)	Alla	In person	Dental clinic	Dental therapists	Individual
Whyalla (1)	All	Mixed	Health clinic	Aboriginal Health workers	Individual
Yalata (2)	All	In person	Community	Dental therapists	Individual
	Youth	In person	Schools	Dental therapists	Individual
Coober Pedy (1)	Alla	In person	Dental clinic	Dental therapist s	Individual

<sup>&</sup>lt;sup>a</sup>Programs also extend to non-Indigenous immediate family members of Aboriginal and Torres Strait Islander clients.

A map of service locations and ACCHO's contact details are available via this website: <a href="https://www.naccho.org.au/acchos">https://www.naccho.org.au/acchos</a>

• Oral Health Care for Older People in NSW: Carer Support Package

While not exclusively for Aboriginal communities, this support package offers practical oral health information tailored for Carers of older individuals. It includes guidance on daily oral care routines, recognizing oral health issues, and preventive measures, which can be adapted to support Aboriginal and Torres Strait Islander elders.

By leveraging these resources and implementing these strategies, carers and community members can significantly contribute to the oral health and overall well-being of Aboriginal and Torres Strait Islander individuals.

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