oral health & intellectual disability
a guide for dental practitioners

oral health is central to good overall health

Good oral health is required if people with intellectual disability are to:

- experience good overall health and wellbeing
- participate in their communities
- function to the best of their abilities

People with disability are at increased risk of poor oral health and face multiple barriers to accessing dental services.

This guide is for dentists, dental therapists, oral health therapists, dental hygienists and dental prosthetists. It outlines some of the barriers to good oral health experienced by people with intellectual disability. It provides strategies that dental practitioners can use to identify these barriers so that they can engage patients’ support networks and provide high quality dental care.

Most patients with mild or moderate disability can be treated successfully in the general dental clinic.

“Oral health is considered integral to general health, with poor oral health likely to exist when general health is poor and vice versa. Oral health refers to the standard of health of the oral and related tissues that enable an individual to eat, speak and socialise without active disease, discomfort or embarrassment. While oral diseases are common, they are largely preventable through population-level interventions (including water fluoridation), and individual practices such as personal oral hygiene and regular preventive dental care.”

(Centre for Oral Health Strategy NSW, 2013:4)
achieving better outcomes

Poor health is common in people with disability. The relationship between disability and poor oral health is more accurately viewed in light of the endemic, social disadvantage, neglect and poor support experienced by people with intellectual disability. The chart on the right side of page 2 illustrates the relationship between disadvantage, poor support, disability and oral health.

While there are some dental conditions specific to particular impairments or diagnoses (discussed later), the key challenge for the dental practitioner lies in addressing the support and psycho-social needs of patients, namely:

1. collaboration

Collaborating effectively with medical providers, key support professionals, accommodation services and families is essential to ensure optimum oral health outcomes and completion of home oral care plans, as well as facilitating the early identification of oral disease.

People with intellectual disability usually have at least one plan in place that is used as a central tool for support staff, organisations and family. This may be a Person Centred Plan or a Support Plan, and possibly a Behaviour Support Plan (see Communication, below), a Lifestyle Plan or Consistent Approaches. One of the best ways to ensure that your dental advice goes home with the patient and is put into practice is to have the advice – particularly advice about serious oral health concerns, treatments and home care – added to the person’s planning documents. This may require a discussion with the support professional or family or non-family carer who accompany the person to the consultation.

2. communication

Many people with intellectual disability communicate verbally and in ways that are similar to or the same as any other patient. Dental practitioners who take the time to communicate directly and build a relationship with these patients will achieve better outcomes than if other perspectives are prioritised over those of the patient. However, some people with intellectual disability do not or can not speak, while others can only do so with difficulty. For these patients, alternative methods of communication may be required. Demystifying communication is one of the most important factors in successfully treating patients with a disability. There are three aspects to good communication with patients with complex communication issues:

a. Use of communication techniques with patients who have communication barriers. This may necessitate the dental practitioner using techniques such as Tell, Show, Do, providing breaks and reassurance, and desensitisation.

b. Communication with key support professionals and family members. The dental practitioner needs to be aware that an individual may have several support professionals or carers and that the accompanying person may not be the main support. This will necessitate the dental office following up by email or phone, or providing written instructions. Parents may also be tired or stressed and may have experienced difficulties during prior dental treatment. Supporters, carers and family members will require clear explanations, printed or emailed information, and guidance in collaborating with other allied health professionals. Support professionals, family members and carers can also facilitate communication by supporting the patient’s use of communication devices.

c. Recognising that what is often referred to as behaviours of concern or challenging behaviour is better viewed through the lens of communication. A complete outline of the links between communication and behaviour is outside the scope of this guide. However, in summary, it can be said that most challenging behaviour represents communication relating to concerns or issues that are of particular relevance to the person is experiencing.

Tips or guidelines for communication will often be available in the person’s Behaviour Support Plan or Consistent Approaches documents. Support professionals may be able to share these documents – or sections of them – with dental practitioners.

See page 10 for more information about Positive Behaviour Support and Restrictive Practices.
working in partnership

Disability support professionals work across a range of services including family support, respite, recreation, accommodation, day programs, case management and behaviour support. It is important for dental practitioners to recognise that disability support professionals generally have very little health training. Health professionals should not assume health knowledge.

Disability support professionals work defined hours and many work in shifts as part of a team. Some support professionals will be committed long-term practitioners working in permanent positions. Others will be untrained casual staff who will be in the job for a short period.

For various reasons, the oral health of people with intellectual disability living in supported or low cost accommodation is generally not prioritised due to competing interests and support needs. People living in privately owned or rented accommodation may experience similar circumstances.

Good oral care can be achieved by ensuring effective collaboration and communication between all parties, including documenting assessment, treatment and daily oral care. Refer to the planning forms at the end of this Guide, Oral Health Assessment and Home Oral Care Plan, or visit inclusiondesignlab.org.au/dental.

People with disability

Dental practitioners and other healthcare professionals

Family/Carer

Support professionals & organisations

Good healthcare relies on respect, communication & collaboration

bridging the gap between oral and overall health

While poor oral health is a significant health concern in itself, the link between oral and systemic health is also well established in literature. Poor oral health has been linked to increased risk of cardiovascular disease, diabetes and other chronic conditions (Bascones-Martinez 2012). For example, diabetes has been linked to the presence of periodontal disease (Bascones-Martinez 2012) with patients having “six times higher risk of worsening glycaemic control and the development of the macro and microvascular complication of diabetes, in particular cardiovascular and kidney disease” (Watanabe 2011).

Individuals with disability have poorer outcomes including: extractions rather than fillings, increased severity of periodontal disease, and a lack of functional replacement of extracted teeth. (Mac Giolla Phadaig et al., 2014)

Individuals with disability have poorer outcomes including:

- Expirations rather than fillings
- Increased severity of periodontal disease
- A lack of functional replacement of extracted teeth

Inflammation constitutes a major mechanism for the observed link between oral diseases, specifically periodontitis, and several particular systemic diseases. There is evidence for an association between periodontal disease and diabetes, as well as emerging evidence for other conditions including: obesity; coronary artery disease; metabolic syndrome; [poor] oral health after menopause; helicobacter pylori; [and] adverse pregnancy outcomes.

The following table shows some of the causes, conditions and adverse effects experienced by people with intellectual and developmental disability.

<table>
<thead>
<tr>
<th>Difficulty of chewing</th>
<th>Possible requiring altered duration and frequency of meals</th>
<th>Poor or inadequate nutrition</th>
<th>Requiring a modified and possibly cariogenic diet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental decay &amp; tooth loss</td>
<td>Impact on speech, appearance, self esteem, eating and language development</td>
<td>May cause oral malodour</td>
<td>May adversely impact on social inclusion and participation</td>
</tr>
<tr>
<td>Periodontal disease</td>
<td>Caries and periodontal disease</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

medications

- Some medications may cause:
  - Gingival hyperplasia
  - Xerostomia
  - Hypersalivation

severe caries

- Necrotic tooth pulp
- Pain & distress
- Halitosis, cellulitis, sinusitis, bacteremia

aspiration of oral bacteria

- Aspiration pneumonia
- Recurrent infection
- Respiratory diseases: Oral care interventions have led to a 90% reduction in ventilator associated pneumonia (Hutchins et al., 2009).
- Dry, crusted saliva mixed with mucus from elsewhere in the gastrointestinal tract sitting around mouth and lips

The following table shows some of the causes, conditions and adverse effects experienced by people with intellectual and developmental disability.

- Use clear language and avoid jargon when communicating with patients and their support people.
- Document summaries of key points in relation to the assessments.
- Make sure information is recorded and conveyed clearly.
- Engage with support professionals to get an understanding of their level of experience and knowledge.
- Provide opportunities to practice the skills recommended in the oral care plan.
- Take responsibility for proactive healthcare and regular review to ensure interventions are implemented effectively and in a timely manner.
- Document your assessment, treatment and home oral care. Refer to the planning forms at the end of this Guide, Oral Health Assessment and Home Oral Care Plan, or visit inclusiondesignlab.org.au/dental.

Encourage the dissemination of these documents between all parties.
common conditions found in patients with intellectual disability

Among dentists who do treat individuals with intellectual and developmental disability, 99% have identified poor oral hygiene as the single greatest threat to their patients. (Binkley et al., 2014)

The following chart outlines some of the common issues experienced by people with a particular diagnosis. Dental practitioners should screen patients for issues common to patients with particular conditions. This list does not include all possible conditions or common issues.

<table>
<thead>
<tr>
<th>Diagnosis or condition</th>
<th>Common or occasional issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intellectual disability</td>
<td>Difficulty understanding health promotion strategies and the importance of good oral health</td>
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<tr>
<td></td>
<td>Reliance on carers and supporters to assist them with food selection, daily oral hygiene, and arranging dental treatment</td>
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<tr>
<td></td>
<td>Medication which may affect gingivae and saliva production, quality and function</td>
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<tr>
<td></td>
<td>Epilepsy and the associated risk of damaged oral structures and prostheses</td>
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<tr>
<td></td>
<td>Oro-motor dysfunction with reduced food clearing and contribution to occlusal issues</td>
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<tr>
<td></td>
<td>Poor diet (relating to access to information about healthy food, financial issues, peer modelling, constraints on time of support professionals etc)</td>
</tr>
<tr>
<td></td>
<td>Stressors related to accommodation and daytime activities whereby choice has been restricted</td>
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<tr>
<td></td>
<td>TMJ disorders</td>
</tr>
<tr>
<td>Down Syndrome</td>
<td>Developmental dental anomalies</td>
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<tr>
<td></td>
<td>Greater incidence of cardiac anomalies</td>
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<tr>
<td></td>
<td>Fine motor issues that compromise the ability to clean teeth effectively</td>
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<tr>
<td></td>
<td>Increased incidence of periodontitis</td>
</tr>
<tr>
<td></td>
<td>Increased incidence of epilepsy</td>
</tr>
<tr>
<td>Cerebral Palsy</td>
<td>Parafunction and attrition</td>
</tr>
<tr>
<td></td>
<td>Oro-motor dysfunction</td>
</tr>
<tr>
<td></td>
<td>Gastro-oesophageal acid reflux</td>
</tr>
<tr>
<td></td>
<td>Fine motor issues that compromise the ability to clean teeth effectively</td>
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<tr>
<td></td>
<td>Tactile intolerance</td>
</tr>
<tr>
<td></td>
<td>TMJ dysfunction</td>
</tr>
<tr>
<td></td>
<td>Dysphagia</td>
</tr>
<tr>
<td>Autism Spectrum Disorder</td>
<td>Sensory issues, such as increased or decreased sensitivity to touch, sounds, light, liquids, and temperature</td>
</tr>
<tr>
<td></td>
<td>Damaging oral habits are common including: bruxism, tongue thrusting, and self-injurious behaviour such as picking at the gingiva or biting the lips</td>
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<tr>
<td></td>
<td>Periodontal disease, contributed to by poor daily oral hygiene and medication, occurs in people with autism in much the same way it does in persons without developmental disabilities</td>
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<tr>
<td></td>
<td>Trauma and injury to teeth from falls or accidents that may occur in people with seizure disorders</td>
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<tr>
<td></td>
<td>Violent and self-injurious behavior triggered by the invasive nature of oral care, particularly when there has not been a positive desensitisation appointment to familiarise the patient with the staff, office and equipment using a step-by-step process</td>
</tr>
<tr>
<td>Rett Syndrome</td>
<td>Hypersalivation, micrognathia, abnormal chewing, narrow maxillary arch, and high arched palate</td>
</tr>
<tr>
<td></td>
<td>Bruxism, drooling, biting hands, digit/ hand sucking, and tongue protrusion as habits</td>
</tr>
<tr>
<td>Williams Syndrome</td>
<td>Malocclusion, hypodontia, malformed teeth, taurodontism, pulp stones, increased space between teeth, enamel hypoplasia and high prevalence of dental caries</td>
</tr>
<tr>
<td></td>
<td>Variation in dental development, agenesis of permanent teeth in combination with aberrations in tooth size and morphology may affect dental esthetics and complicate orthodontic and prosthodontic treatment</td>
</tr>
<tr>
<td>Fragile X</td>
<td>Significantly higher occurrence of malocclusion</td>
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</tbody>
</table>

The following conditions are not as common as those on the previous page. Better outcomes for patients with these conditions can be achieved through increased collaboration with patients’ support networks and enhanced oral home care.

Dental practitioners should remember that patients with intellectual disability often have complex issues such as:

- Financial considerations that may necessitate choice between oral care and other systematic care.
- Care providers being overwhelmed with the burden of complex medical care and day to day care at the expense of prioritising oral health. Dental practitioners may not be able to alleviate these burdens directly, however recognising that such stressors exist may enhance communication and understanding.
- Oral health problems failing to be recognised, discussed or considered by medical or other allied health practitioners.
- Medical treatment requiring the intake of medications, modified diets or alternative feeding methods that may also increase the risk of decay in these patients.
- Fine motor conditions such as Parkinson’s or arthritis presenting physical challenges to oral care routines.
A video based on this pathway, Dentistry and Disability, can be found at inclusiondesignlab.org.au/dental.
Across Australia, the use of restrictive practices is carefully regulated by senior practitioners. For instance, in Victoria, restrictive practices are mandated by the Senior Practitioner (Disability), Office of Professional Practice, as: chemical restraint, physical restraint, mechanical restraint, and seclusion. The use of consequences and the exercise of power are also identified as restrictive practices by most peak bodies and regulatory authorities. In line with the Disability Act (Vic) 2006, the use of restrictive practices in the delivery of support services to a person with disability must be approved through a regulated process that, in short, involves the application of Positive Behaviour Support (PBS) and a Behaviour Support Plan.

Across Australia, the incoming National Disability Insurance Scheme (NDIS) Quality and Safeguarding Framework places increased emphasis on PBS and ensuring that all available strategies are employed so that restrictive practices are avoided.

Dentists are empowered to use oral anxiolysis or sedation to manage the patient in the least invasive manner. However, collaboration between the disability support professional and the dental practitioner may lead to alternative approaches, particularly if avoiding the use of sedatives will allow the patient to express feedback about pain and symptoms. It should be noted that the actions of direct support professionals fall under the guidelines noted above, including in the dental surgery.

Visit the following sites for more information:
- Check if a restrictive intervention has occurred using this OPP tool: surveygizmo.com/s3/2741253/has-a-restrictive-intervention-occurred

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### Oral Health Assessment

The dental practitioner can use this form to outline dental issues, support needs, treatment, and follow up protocols for the patient. This form can be directly communicated to general practitioners and allied health professionals allowing for a shared understanding of the link between oral health and overall health in the patient’s life.

### Home Oral Care Plan

Dental practitioners can use this form to outline the ideal home care for the patient. This form is best completed with the input of the patient and any supporters who accompany them to the appointment. The form provides clear, simple directions for supporters so that they can gather helpful information using observation between appointments.

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### Dental Assessment (completed by dental practitioner)

Notes from discussion with support professional or carer. Include a brief review of Home Oral Care Plan.

**CHECKS FOR DENTAL PRACTITIONERS:**
- Develop rapport and familiarise the patient with the dental clinic/environment.
- Obtain understanding of patient’s tolerance for dental examination.
- Explain what will be completed today including sedation, medication and each step of the treatment.
**Dental observations (including treatment completed)**

**Follow up treatment required**

**NOTE TO DENTAL PROFESSIONALS:**
Write instructions clearly so the Medical Practitioner, the patient and carer clearly understand necessary treatment. Details clearly outlining procedures will ensure that appropriate transport, post assessment meals and direct support can be coordinated.

**Notes for the Medical Practitioner**

**Administration**

Date of appointment to complete above work

Date of next preventative treatment

Patient and support professional have been reminded to bring Home Oral Care Plan to all appointments.

A copy of this form has been provided to:

Medical Practitioner (as listed at the top of this form)

Support Professional / patient. Please write name below.

To download a copy of this form visit inclusiondesignlab.org.au/dental

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**The Home Oral Care Plan** describes the specific routine required for this individual. It includes information to support and maintain optimal daily oral care.

**Daily Oral Care Routine**

- **Brush teeth - Instructions:**
- **Toothpaste**
- **Interdental brush or Flossette - Type and size:**
- **Toothbrush - Type and size:**
- **Other**
- **Reminder to avoid:**

**Assistance and support for daily oral care routine**

Which part of the oral care plan can the person do themselves?

What do support professionals need to assist with?

List the skills required by support professionals to support the patient’s daily oral care routine:
To download a copy of this form, visit inclusiondesignlab.org.au/dental

The Plan should be taken to the Dentist and Medical Practitioner for review and update during assessment.

Updating this Plan
This Home Oral Care Plan should be viewed on a daily basis to ensure the routine is followed. The Plan should be taken to the Dentist and Medical Practitioner for review and update during assessment.

To download a copy of this form, visit inclusiondesignlab.org.au/dental