

## Unit 2: DENTAL CONDITIONS AND DENTAL HYGIENE

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### *DENTAL CONDITIONS AND DENTAL HYGIENE*

### DEFINITION

#### a. Dental Conditions

- Dental conditions, commonly called "dental problems," encompass various issues that compromise oral health and hygiene. These conditions range from cavities and tooth enamel erosion to infections and diseases affecting the gums. Beyond just physical discomfort and pain, dental problems can hamper an individual's ability to consume food properly. Moreover, they may adversely impact one's self-confidence and self-esteem due to the aesthetic and functional implications. Dental problems include cavities, tooth erosion, gum infections, and gum diseases.

#### b. Dental Hygiene

- Dental hygiene is the practice of maintaining clean teeth, gums, and mouth to prevent dental problems such as tooth decay, gum disease, and bad breath. It involves daily habits such as brushing and flossing, regular dental check-ups, and a healthy diet. Neglecting dental hygiene can lead to severe dental problems that can impact your overall health.

### ETIOLOGY

#### a. Dental Conditions

- Poor oral hygiene practices, such as inadequate brushing, flossing, and infrequent professional cleanings, allow plaque buildup that leads to tooth decay and gum disease. Dietary factors, including frequent consumption of sugary and acidic foods and drinks, erode tooth enamel and reduce saliva flow, making it easier for bacteria to accumulate. Tobacco use significantly increases the risk of oral cancer, gum disease, and tooth staining. Genetic predispositions can contribute to the development of certain dental problems like misaligned or weakly-enameled teeth. Additionally, some medications and systemic medical conditions can negatively impact oral health, while traumatic injuries to the

mouth can result in cracked or knocked-out teeth. Environmental factors, such as excessive fluoride exposure, can also lead to dental fluorosis and discoloration.

**b. Dental Hygiene**

- Lack of education and awareness about proper oral care techniques and the importance of maintaining good dental hygiene can lead to suboptimal habits. Busy schedules and forgetfulness can cause individuals to skip or neglect regular brushing and flossing routines. Socioeconomic factors, such as lower income levels, have been linked to worse oral hygiene practices. Additionally, certain psychological conditions like depression and anxiety have been associated with poorer dental care habits. Addressing these underlying causes, including improving oral health education, developing convenient routines, and providing access to dental services, can help promote better dental hygiene among the population.

**PREVALENCE & INCIDENCE**

<i>Locally</i>	<i>Internationally</i>
<ul style="list-style-type: none"><li>• The National Monitoring and Evaluation for Dental Survey (NMEDS, 2022) indicates that <b>87.4%</b> of Filipinos suffer from tooth decay or dental cavities while <b>48.3%</b> have periodontal disease.</li><li>• The Department of Health (DOH) considers dental caries or tooth decay a "silent epidemic," affecting as many as <b>73 million Filipinos</b>.</li></ul>	<ul style="list-style-type: none"><li>• Oral diseases affect an estimated <b>3.5 billion</b> people globally with <b>3 out of 4</b> people affected living in middle-income countries.</li><li>• Globally, an estimated <b>2 billion people</b> suffer from caries of <i>permanent</i> teeth and <b>514 million children</b> suffer from caries of <i>primary</i> teeth.</li></ul>

**SIGNS, SYMPTOMS, PATHOMECHANICS (A. Dental Conditions)**

Manifestations that the <b>Physician/Allied Health Professional</b>	<ul style="list-style-type: none"><li>• <b>Visual examination</b><ul style="list-style-type: none"><li>- Healthcare professionals can observe visible signs such as tooth decay (cavities), gum inflammation, swelling, discoloration, or abnormalities in tooth structure.</li></ul></li></ul>
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Perceive	<ul style="list-style-type: none"> <li>● <b>X-rays and imaging</b> <ul style="list-style-type: none"> <li>- Radiographic images can reveal hidden dental problems, such as impacted teeth, bone loss, or abnormalities in tooth roots or jaw structure.</li> </ul> </li> <li>● <b>Clinical assessment</b> <ul style="list-style-type: none"> <li>- Professionals may perform periodontal probing to assess gum health, check for tooth mobility, evaluate bite alignment, and identify oral lesions or growths.</li> </ul> </li> </ul>
Manifestations that the <b>Parents/Significant Others</b> Perceive	<ul style="list-style-type: none"> <li>● <b>Changes in behavior</b> <ul style="list-style-type: none"> <li>- Avoidance of certain foods or drinks- Individuals with dental conditions may avoid specific foods or beverages due to tooth pain, sensitivity, or discomfort.</li> <li>- Irritability, fussiness, or mood changes- Dental pain or discomfort can cause irritability, fussiness, or mood changes, especially during eating or oral care.</li> </ul> </li> <li>● <b>Oral hygiene challenges</b> <ul style="list-style-type: none"> <li>- Resistance, discomfort, or difficulty with oral care- Both children and adults with dental conditions may exhibit resistance, discomfort, or difficulty during brushing, flossing, or rinsing.</li> <li>- Difficulty eating or chewing- Dental conditions can lead to challenges in eating or chewing properly, causing discomfort or limitations in food choices.</li> </ul> </li> <li>● <b>Communication, expressions, and verbal complaints</b> <ul style="list-style-type: none"> <li>- Verbalizing pain, discomfort, or sensitivity- Individuals may verbally express tooth pain, discomfort, sensitivity, or other concerns to their parents, caregivers, or significant others.</li> <li>- Facial expressions or non-verbal cues- Wincing, grimacing, or other facial expressions may indicate discomfort or pain during eating or oral care.</li> </ul> </li> <li>● <b>Concern for oral health and support</b> <ul style="list-style-type: none"> <li>- Engagement in oral health discussions- Parents or significant others may discuss the dental condition, express concern, and seek guidance from dental professionals.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>- Encouragement to seek dental care- Significant others are crucial in motivating and supporting individuals to seek necessary dental care, scheduling appointments, and ensuring regular check-ups.</li> <li>- Assistance and support with oral care- Parents or significant others can provide assistance, reminders, or encouragement during oral hygiene routines, especially for children or those experiencing challenges.</li> </ul>
Manifestations that the <b>Patient</b> Experiences	<ul style="list-style-type: none"> <li>● <b>Pain or sensitivity</b> <ul style="list-style-type: none"> <li>- Patients may experience toothache, sensitivity to hot or cold temperatures, or discomfort when biting or chewing.</li> </ul> </li> <li>● <b>Bad breath</b> <ul style="list-style-type: none"> <li>- Persistent bad breath (halitosis) can be a sign of dental conditions, including gum disease or tooth decay.</li> </ul> </li> <li>● <b>Oral discomfort</b> <ul style="list-style-type: none"> <li>- Patients may feel discomfort or irritation in the mouth, including sore or swollen gums, ulcers, or a feeling of something stuck between teeth.</li> </ul> </li> </ul>
<b>Structural &amp; Anatomical Changes</b>	<ul style="list-style-type: none"> <li>● <b>Tooth loss</b> <ul style="list-style-type: none"> <li>- Dental conditions like advanced gum disease or trauma can result in tooth loss.</li> </ul> </li> <li>● <b>Changes in tooth alignment</b> <ul style="list-style-type: none"> <li>- Malocclusion or misalignment of teeth may affect bite and overall oral function.</li> </ul> </li> <li>● <b>Bone resorption</b> <ul style="list-style-type: none"> <li>- Severe dental conditions can lead to bone loss in the jaw, altering the support and stability of teeth.</li> </ul> </li> </ul>

## SIGNS, SYMPTOMS, PATHOMECHANICS (B. Dental Hygiene)

Manifestations that the <b>Physician/Allied Health Professional</b> Perceive	<ul style="list-style-type: none"><li>● <b>Plaque and tartar buildup</b><ul style="list-style-type: none"><li>- Healthcare professionals can observe the presence of plaque, a sticky film containing bacteria, as well as hardened tartar (calculus) on the teeth.</li></ul></li><li>● <b>Gum inflammation</b><ul style="list-style-type: none"><li>- Redness, swelling, and bleeding of the gums (gingivitis) can indicate poor oral hygiene.</li></ul></li><li>● <b>Tooth decay</b><ul style="list-style-type: none"><li>- The presence of cavities (dental caries) on the tooth surface suggests inadequate oral hygiene practices.</li></ul></li><li>● <b>Bad breath</b><ul style="list-style-type: none"><li>- Persistent bad breath (halitosis) can be a sign of poor oral hygiene and the presence of oral bacteria.</li></ul></li></ul>
Manifestations that the <b>Parents/Significant Others</b> Perceive	<ul style="list-style-type: none"><li>● <b>Visible signs of plaque or tartar</b><ul style="list-style-type: none"><li>- Parents or significant others may observe the presence of yellowish or brownish deposits on the teeth.</li></ul></li><li>● <b>Gum redness or bleeding</b><ul style="list-style-type: none"><li>- Parents may notice that the child's gums appear red, swollen, or bleed easily during brushing or flossing.</li></ul></li><li>● <b>Complaints of bad breath</b><ul style="list-style-type: none"><li>- Significant others may notice that the child or adult frequently complains of bad breath.</li></ul></li></ul>
Manifestations that the <b>Patient</b> Experiences	<ul style="list-style-type: none"><li>● <b>Complaints of bad breath</b><ul style="list-style-type: none"><li>- Patients may experience pain or discomfort when consuming hot, cold, sweet, or acidic</li></ul></li></ul>

	<p>foods or beverages due to exposed tooth surfaces.</p> <ul style="list-style-type: none"> <li>● <b>Gum sensitivity or tenderness</b> <ul style="list-style-type: none"> <li>- Patients may feel sensitivity or tenderness in the gums, especially during brushing or flossing.</li> </ul> </li> <li>● <b>Persistent bad breath</b> <ul style="list-style-type: none"> <li>- Patients may notice that they have chronic bad breath, even after brushing or using mouthwash.</li> </ul> </li> </ul>
<b>Structural &amp; Anatomical Changes</b>	<ul style="list-style-type: none"> <li>● <b>Tooth discoloration</b> <ul style="list-style-type: none"> <li>- Poor oral hygiene can lead to tooth discoloration, ranging from yellowing to brown or black spots on the enamel.</li> </ul> </li> <li>● <b>Gum recession</b> <ul style="list-style-type: none"> <li>- Inadequate oral hygiene practices can cause the gums to recede, exposing the tooth roots and leading to tooth sensitivity.</li> </ul> </li> <li>● <b>Bone loss</b> <ul style="list-style-type: none"> <li>- Advanced gum disease resulting from poor oral hygiene can lead to bone loss in the jaw, compromising the stability of teeth.</li> </ul> </li> </ul>

## POSSIBLE SPEECH-LANGUAGE PROBLEMS ASSOCIATED WITH THE CONDITION

### TYPES, COURSE, & PROGNOSIS

<b>Types</b>	<ol style="list-style-type: none"> <li>1. <b>Dental caries (tooth decay)</b> Occurs when a thin layer of plaque builds up on the surface of a tooth and transforms sugars present in foods and beverages into acids. These acids gradually break down the tooth structure over time. This</li> </ol>
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condition, also known as dental caries or tooth decay, manifests as cavities formed in the tooth due to bacteria reacting with sugar. It is a prevalent dental issue.

## **2. Periodontal (gum) disease**

Periodontal disease affects the tissues surrounding and supporting the teeth. It is characterized by symptoms such as bleeding or swollen gums (known as gingivitis), pain, and sometimes bad breath. In its more severe stages, the gum may recede from the tooth and supporting bone, leading to loose teeth and potential tooth loss. Poor oral hygiene and tobacco use are the main risk factors for periodontal disease.

: Gingivitis serves as an early stage of periodontal disease (PD), which is a serious oral condition causing permanent damage to the gums and jawbone. If left untreated, gingivitis can progress into PD. Periodontal disease arises from inadequate oral hygiene, exacerbated by smoking or a diet high in sugars. Many adults over 30 exhibit signs of gingivitis.

## **3. Bad Breath**

Bad breath, medically termed halitosis. Common causes include tobacco use, high-sugar diets, excessive consumption of coffee or alcohol, inadequate oral hygiene, and dry mouth. Additionally, bad breath can indicate underlying gum disease or periodontal disease, making it important not to overlook this symptom. Depending on the severity of the condition, professional dental treatments and natural remedies are available to address bad breath.

## **4. Dry Mouth**

Xerostomia, also known as Dry Mouth, is a condition marked by insufficient saliva production. Although it's typically not life-threatening, it can suggest an underlying problem or cause discomfort.

## **5. Tooth Sensitivity**

Dentin hypersensitivity is the term used to describe tooth pain or discomfort experienced after exposure to extreme temperatures, sweets, or highly acidic substances.

## **6. Edentulism (total tooth loss)**

The loss of teeth typically represents the culmination of a lifetime of oral health issues, primarily

advanced dental decay and severe gum disease, although it can also result from accidents or other factors. However, losing teeth can have significant psychological, social, and functional impacts, causing trauma, social setbacks, and limitations in everyday activities.

**7. Oral cancer**

Oral cancer encompasses cancers affecting the lip, various parts of the mouth, and the oropharynx, collectively ranking as the 13th most prevalent cancer worldwide. It tends to be more prevalent among men and older individuals, with higher mortality rates among men compared to women, and incidence rates varying significantly based on socio-economic factors. Primary causes of oral cancer include the use of tobacco, alcohol. The disease initiates with the formation of abnormal carcinoma cells, leading to the development of persistent mouth sores known as oral lesions in various areas of the oral cavity. Without early diagnosis and treatment, oral cancer can be life-threatening.

**8. Oro-dental trauma**

Dental trauma arises from injury to the teeth, mouth, and oral cavity. It can stem from oral factors like misalignment of teeth, as well as environmental factors such as unsafe playgrounds, risky behavior, road accidents, and violence. Treating dental trauma can be expensive and time-consuming, and in some cases, it may even result in tooth loss. This can lead to complications affecting facial and psychological development, as well as overall quality of life.

**9. Noma**

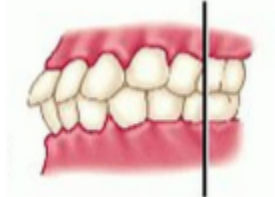


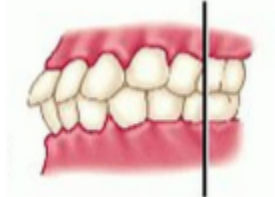


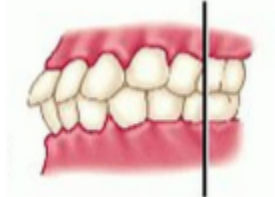


Noma is a serious and often fatal disease that primarily affects children between the ages of 2 and 6. It is more prevalent among children who are malnourished, have weakened immune systems, live in extreme poverty, or suffer from infectious diseases, all compounded by poor oral hygiene. The disease typically begins as a sore on the gums, which quickly evolves into acute necrotizing gingivitis, rapidly destroying soft tissues. Without intervention, it can progress to affect the hard tissues and skin of the face. However, early detection of noma allows for swift intervention through basic hygiene practices, antibiotics, and improved nutrition, which can halt its progression.

**10. Cleft lip and palate**

Orofacial clefts represent the most prevalent craniofacial birth defects. While genetic factors contribute



	<p>significantly, poor maternal nutrition, tobacco use, alcohol consumption, and obesity during pregnancy also influence their occurrence. In low-income areas, neonatal mortality rates associated with orofacial clefts are notably high. However, with appropriate surgical treatment for lip and palate clefts, complete rehabilitation is achievable.</p>
<b>Types of Malocclusion</b>	<p>Malocclusion is the medical term for a bad bite, where someone's teeth are misaligned and don't make proper contact. There may be an underlying issue with the upper or lower jaw. Many people have varying degrees of malocclusion. Their teeth don't quite fit together in an ideal way. Depending on the type and severity of the malocclusion, health problems can result, including sleep apnea and gum disease.</p> <p>Classification of Malocclusion</p> <p>Edward Angle initially classified malocclusion based on the relative position of the upper first molar. A perfect occlusion entails the cusp of the upper first molar aligning precisely within the groove of the lower first molar, with all other teeth conforming to the occlusal plane. Any deviation from this alignment is considered malocclusion, categorized into three classes.</p> <p>Malocclusions include overbites, underbites, and several other conditions. There are multiple possible causes of malocclusion, and they may overlap:</p> <ul style="list-style-type: none"> <li>• Genetic factors — Jaw shape and size are partly inherited, and some people are predisposed to develop misaligned teeth</li> <li>• Diet — An excessively soft diet, or a diet low in vitamins such as vitamin K, can contribute to a weaker jaw and misaligned teeth</li> <li>• Childhood habits — Thumb sucking, mouth breathing, and tongue thrusting are all habits that can affect tooth and jaw development over time</li> <li>• Injury or illness — Fractures, dislocations, or diseases that affect the jaw or teeth can all contribute to misalignment</li> </ul> <p>Whatever the underlying cause, orthodontic treatment and/or surgery can generally correct the issue, creating (or restoring) a perfect bite.</p>

	<table> <tr> <th>Class 1 Malocclusion (Neutroclusion)</th><th>Class 2 Malocclusion (Distocclusion)</th><th>Class 3 Malocclusion (Mesiocclusion)</th></tr> <tr> <td>The back teeth (molars) are aligned, but the front teeth are overlapping, overcrowded, or rotated. This is the most common kind of malocclusion.</td><td>Also known as overbite, The upper teeth overlap the lower teeth excessively, making the lower jaw appear smaller.</td><td>The lower jaw is pushed forward, and the lower teeth overlap the upper teeth. This is commonly called an underbite.</td></tr> <tr> <td></td><td></td><td></td></tr> <tr> <td>Class I Malocclusion</td><td>Class II Malocclusion</td><td>Class III Malocclusion</td></tr> </table>	Class 1 Malocclusion (Neutroclusion)	Class 2 Malocclusion (Distocclusion)	Class 3 Malocclusion (Mesiocclusion)	The back teeth (molars) are aligned, but the front teeth are overlapping, overcrowded, or rotated. This is the most common kind of malocclusion.	Also known as overbite, The upper teeth overlap the lower teeth excessively, making the lower jaw appear smaller.	The lower jaw is pushed forward, and the lower teeth overlap the upper teeth. This is commonly called an underbite.				Class I Malocclusion	Class II Malocclusion	Class III Malocclusion	<p>Within these three classes, there are seven common types of malocclusion. Orthodontic treatment options also vary depending on age and the type and severity of the malocclusion.</p>
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Class I Malocclusion	Class II Malocclusion	Class III Malocclusion												
<b>Course</b>	<p>Oral conditions and dental diseases affect the health of your teeth, gums, and surrounding tissues. Since oral health is interconnected with overall body health, it's crucial to promptly prevent, diagnose, and treat these issues. Maintaining healthy teeth via good oral hygiene brings about benefits for overall health. Dental issues like tooth decay and gum disease not only result in tooth loss but are also linked to significant chronic conditions such as heart disease, stroke, arthritis, and diabetes.</p>													
<b>Outcome</b> if Left Treated and/or Untreated	<p>Oral health conditions and dental diseases are prevalent among individuals of all age groups, with common issues including cavities, gum disease, bad breath, and dental anxiety, among others. Many dental diseases initially manifest in mild forms that are easily treatable if detected early. However, if left untreated,</p>													

	<p>these conditions can have a significant impact on overall health. It's essential to promptly consult a dentist if you experience symptoms of a common oral health condition or dental disease. Maintaining good oral health is crucial not only for boosting self-esteem but also for overall wellness and health. Dental problems like tooth decay and gum disease can lead to difficulties with chewing and discomfort. Adopting good dental hygiene practices, such as brushing properly twice a day, flossing daily, avoiding tobacco, alcohol, and sugary foods and drinks, and receiving regular dental care, is key to ensuring optimal oral health.</p>
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## HEALTHCARE RESOURCES AVAILABLE FOR DENTAL CONDITIONS AND DENTAL HYGIENE

<i>Children's Oral Health</i>	
<p><b>Cavities</b>, also known as caries or tooth decay, are the most common chronic diseases of childhood. Untreated cavities can cause pain and infections that may lead to problems with eating, speaking, playing, and learning. The following are what parents and caregivers can do to prevent and/or treat dental conditions associated with cavities.</p>	
<b>For Babies</b>	<ul style="list-style-type: none"> <li>• Wipe gums twice a day with a soft, clean cloth in the morning after the first feeding and right before bed to wipe away bacteria and sugars that can cause cavities</li> <li>• When teeth come in, start brushing twice a day with a soft, small-bristled toothbrush and plain water</li> <li>• Visit the dentist by your baby's first birthday to spot signs of problems early</li> <li>• Talk to your dentist or doctor about putting fluoride varnish on your child's teeth as soon as the first tooth appears. <ul style="list-style-type: none"> <li>○ <i>For children younger than 2, consult first with your doctor or dentist regarding the use of fluoride toothpaste.</i></li> </ul> </li> </ul>
<b>For Children</b>	<ul style="list-style-type: none"> <li>• Brush their teeth twice a day with fluoride toothpaste.</li> <li>• Help your child brush their teeth until they have good brushing skills. <ul style="list-style-type: none"> <li>○ <i>If your child is younger than 6, watch them brush. Make sure they use a pea-sized amount of toothpaste and always spit it out rather than swallow</i></li> </ul> </li> <li>• Ask your child's dentist to apply dental sealants when appropriate</li> </ul>

<b>Pregnancy Considerations</b>	<p>When you're pregnant, you may be more prone to gum disease and cavities, which can affect your baby's health. Follow the following steps to protect your oral health:</p> <ul style="list-style-type: none"> <li>• See a dentist before you deliver.</li> <li>• Brush your teeth twice a day.</li> <li>• Floss daily</li> </ul> <p>If you have nausea, rinse your mouth with 1 teaspoon of baking soda in a glass of water after you get sick. This helps wash stomach acid away and keep your tooth enamel safe.</p>
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<i>Adult &amp; Older Adult Oral Health</i>	
<p>Oral health problems in adults include the following:</p> <ul style="list-style-type: none"> <li>• <b>Untreated Cavities/Tooth Decay</b></li> <li>• <b>Gum Disease</b></li> <li>• <b>Tooth Loss</b></li> <li>• <b>Oral Cancer</b></li> <li>• <b>Chronic Diseases</b></li> </ul>	
<b>Regular Hygiene</b>	<ul style="list-style-type: none"> <li>• Brush with fluoride toothpaste</li> <li>• Practice good oral hygiene. Brush teeth thoroughly twice a day and floss daily between the teeth to remove dental plaque</li> <li>• Visit your dentist at least once a year, even if you have no natural teeth or have dentures</li> </ul>
<b>Common Risk Factors</b>	<ul style="list-style-type: none"> <li>• Do not use any tobacco products, If you smoke, quit.</li> <li>• Limit alcoholic drinks</li> </ul>
<b>Accompanying Conditions</b>	<ul style="list-style-type: none"> <li>• If you have diabetes, work to maintain control of the disease. This will decrease the risk of other complications, including gum disease. Treating gum disease may help lower your blood sugar level.</li> <li>• If your medication causes dry mouth, ask your doctor for a different medication that may not cause this condition. If dry mouth cannot be avoided, drink plenty of water, chew sugarless</li> </ul>

	<ul style="list-style-type: none"> <li>gum, and avoid tobacco products and alcohol.</li> <li>See your doctor or dentist if you have sudden changes in taste and smell</li> </ul>
<b>Caregiver Considerations</b>	<ul style="list-style-type: none"> <li>When acting as a caregiver, help older individuals brush and floss their teeth if they are not able to perform these activities independently.</li> </ul>

## SLP THERAPY & EVALUATION

<i>SLP Areas</i>	<i>Specific Areas of Contact Between Odontology &amp; SLP</i>	<i>Strategies</i>
<b>Articulation, Language Production, &amp; Feeding</b>	Teeth Development & Sound Distortion	<p><b>Assessment</b></p> <ul style="list-style-type: none"> <li>Oral Peripheral Mechanism Examination</li> <li>Speech Sound Analysis</li> </ul> <p><b>Treatment Strategies</b></p> <ul style="list-style-type: none"> <li>Indirect Therapy <ul style="list-style-type: none"> <li>Improving Prosody</li> <li>Increasing Loudness and Clarity</li> <li>Communication Strategies</li> </ul> </li> <li>Direct Therapy <ul style="list-style-type: none"> <li>Articulation Techniques</li> <li>Visual Aids</li> <li>Tactile Cues</li> </ul> </li> </ul>
	Uvular Influence in Articulation	<p><b>Assessment</b></p> <ul style="list-style-type: none"> <li>Oral Peripheral Mechanism Examination</li> <li>Speech Sound Analysis</li> </ul>

		<b>Treatment Strategies</b> <ul style="list-style-type: none"> <li>• Oral Placement Techniques <ul style="list-style-type: none"> <li>◦ Visual Aids</li> <li>◦ Tactile Cues</li> </ul> </li> <li>• Auditory Discrimination Training</li> <li>• Proprioceptive Techniques</li> <li>• Shaping Techniques</li> </ul>
	Role of Tongue and Molars in Feeding	<b>Assessment</b> <ul style="list-style-type: none"> <li>• Oral Peripheral Mechanism Examination</li> <li>• Feeding History</li> </ul> <b>Treatment Strategies</b> <ul style="list-style-type: none"> <li>• Oral Motor Exercises</li> <li>• Sensory Integration Techniques</li> <li>• Positioning and Postural Support</li> <li>• Neuromuscular Electrical Stimulation (NMES) (if applicable)</li> <li>• Feeding Therapy Techniques <ul style="list-style-type: none"> <li>◦ Shaping Techniques</li> <li>◦ Tactile Cues</li> </ul> </li> </ul>
	Tongue Ties	<b>Assessment</b> <ul style="list-style-type: none"> <li>• Oral Peripheral Mechanism Examination</li> <li>• Feeding History</li> </ul> <b>Treatment Considerations</b> <ul style="list-style-type: none"> <li>• Pre- and Post-Surgical Intervention</li> </ul>

		<ul style="list-style-type: none"> <li>○ Pre-Frenotomy Procedures <ul style="list-style-type: none"> <li>■ Massage and Touch Therapy</li> <li>■ Sucking Exercises</li> </ul> </li> <li>○ Post-Frenotomy Procedures <ul style="list-style-type: none"> <li>■ Tongue Stretches and Glides</li> <li>■ Blowing Exercises</li> <li>■ Chewing Exercises</li> </ul> </li> <li>● Non-Surgical Intervention <ul style="list-style-type: none"> <li>○ Oral Motor Exercises <ul style="list-style-type: none"> <li>■ Licking Exercises</li> <li>■ Chewing on textured objects</li> <li>■ Blowing exercises</li> </ul> </li> <li>○ Feeding Therapy <ul style="list-style-type: none"> <li>■ Positioning techniques for optimal breastfeeding</li> <li>■ Tactile cues to guide tongue placement during feeding</li> <li>■ Bottle-feeding techniques that promote proper sucking patterns</li> </ul> </li> </ul> </li> </ul>
	Cleft Lip and Palate	<p><b>Assessment</b></p> <ul style="list-style-type: none"> <li>● Oral Peripheral Mechanism Examination</li> <li>● Speech &amp; Feeding Evaluation</li> </ul>

		<b>Treatment Strategies</b> <ul style="list-style-type: none"> <li>• Pre-Surgical Speech Therapy <ul style="list-style-type: none"> <li>○ Improve sucking and swallowing patterns</li> <li>○ Stimulate oral motor development</li> </ul> </li> <li>• Post-Surgical Speech Therapy <ul style="list-style-type: none"> <li>○ Articulation Therapy</li> <li>○ Resonance Therapy</li> <li>○ Feeding Therapy</li> </ul> </li> <li>• Compensatory Strategies <ul style="list-style-type: none"> <li>○ Visual Cues</li> <li>○ Phonation Techniques</li> </ul> </li> </ul>
<b>Morphological Variations of the Facial Skeleton &amp; Oral Soft Tissue</b>	Short Labial Frenulum	<b>Assessment</b> <ul style="list-style-type: none"> <li>• Oral Peripheral Mechanism Examination</li> </ul> <b>Focus on Speech Concerns</b> <ul style="list-style-type: none"> <li>• If the frenulum limits lip movement and causes speech difficulties, like problems with /f/ and /v/ sounds or bilabial sounds, the SLP will focus on: <ul style="list-style-type: none"> <li>○ Articulation Therapy</li> <li>○ Alternative communication methods like picture cards or sign language</li> </ul> </li> </ul>
	Macrognathia & Micrognathia	<b>Assessment</b> <ul style="list-style-type: none"> <li>• Oral Peripheral Mechanism Examination</li> <li>• Speech Sound Analysis</li> </ul>



		<p><b>Treatment Strategies</b></p> <ul style="list-style-type: none"> <li>• Articulation Therapy <ul style="list-style-type: none"> <li>◦ Macrognathia: Compensation for Hindered Tongue Movement and Precise Placement</li> <li>◦ Micrognathia: Alternative tongue placements or compensatory strategies</li> </ul> </li> <li>• Oral Placement Techniques</li> <li>• Speech Modification Techniques</li> </ul>
<p><b>Neuromuscular Dysfunction</b></p>	<p>Weakness or paralysis of the muscles involved in controlling the movement of the lips, tongue, and jaw for articulation</p>	<p><b>Assessment</b></p> <ul style="list-style-type: none"> <li>• Oral Peripheral Mechanism Examination</li> <li>• Speech Sound Analysis</li> </ul> <p><b>Treatment Strategies</b></p> <ul style="list-style-type: none"> <li>• Oral Motor Exercises <ul style="list-style-type: none"> <li>◦ Facial Exercises</li> <li>◦ Tongue Exercises</li> <li>◦ Blowing Exercises</li> </ul> </li> <li>• Neuromuscular Electrical Stimulation (NMES) (if applicable)</li> <li>• Sensory Integration Techniques</li> <li>• Augmentation Techniques <ul style="list-style-type: none"> <li>◦ Increase effort</li> <li>◦ Prolongation techniques</li> <li>◦ Articulation techniques</li> </ul> </li> <li>• Speech Rate and Volume Control</li> </ul>

		<b>Alternative and Augmentative Communication (AAC) Systems</b> <ul style="list-style-type: none"> <li>• Low-tech (Picture Boards)</li> <li>• High-Tech (Speech-Generating Devices)</li> </ul>
	Incoordination of the muscles used for speech	<b>Assessment</b> <ul style="list-style-type: none"> <li>• Oral Peripheral Mechanism Examination</li> <li>• Speech Sound Analysis</li> </ul> <b>Treatment Strategies</b> <ul style="list-style-type: none"> <li>• Oral Motor Exercises <ul style="list-style-type: none"> <li>◦ Sequential Movements</li> <li>◦ Tongue Twisters</li> <li>◦ Blowing Exercises</li> </ul> </li> <li>• Sensory Integration Techniques</li> <li>• Biofeedback</li> <li>• Speech Rate and Pacing Strategies</li> <li>• Augmentation Techniques <ul style="list-style-type: none"> <li>◦ Increased Effort</li> <li>◦ Prolongation Techniques</li> </ul> </li> </ul>

#### THE HEALTHCARE TEAM FOR DENTAL CONDITIONS AND DENTAL HYGIENE

<b>Dentists/Dental Surgeons</b>	<ul style="list-style-type: none"> <li>• Primary care providers for oral health</li> <li>• Diagnose and treat a wide range of dental conditions, including cavities, gum disease, tooth decay, and root canals</li> <li>• Perform preventive care procedures like cleanings, fluoride treatments, and sealants, as well as restorative procedures like fillings, crowns, and bridges</li> </ul>
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	<ul style="list-style-type: none"> <li>• Oral surgeons are dentists with additional training to perform surgeries in the mouth and jaw, such as wisdom teeth removal, dental implant placement, and corrective jaw surgery</li> </ul>
<b>Orthodontists</b>	<ul style="list-style-type: none"> <li>• Dentists who specialize in straightening teeth and correcting misaligned bites</li> <li>• Use braces, retainers, and other corrective appliances to move teeth into their proper positions</li> </ul>
<b>Oral and Maxillofacial Surgeons</b>	<ul style="list-style-type: none"> <li>• Surgeons who specialize in treating conditions of the mouth, face, and jaws</li> <li>• Perform a wide range of surgeries, including complex tooth extractions, jaw reconstruction, facial trauma repair, cleft lip &amp; palate repair, and tumor removal</li> </ul>
<b>Speech-Language Pathologists</b>	<ul style="list-style-type: none"> <li>• Can collaborate with dentists and orthodontists to address speech difficulties caused by dental problems, such as missing teeth or cleft lip and palate</li> </ul>
<b>Periodontists</b>	<ul style="list-style-type: none"> <li>• Dentists who specialize in the treatment of gum disease</li> <li>• Provide deep cleanings (scaling and root planing), gum surgery (flap surgery), and bone grafting procedures to treat gum disease and support teeth</li> </ul>
<b>Implant Dentists</b>	<ul style="list-style-type: none"> <li>• Dentists with advanced training in placing dental implants—artificial tooth roots surgically placed in the jawbone to support crowns, bridges, or dentures</li> </ul>
<b>Prosthodontics</b>	<ul style="list-style-type: none"> <li>• Dentists who specialize in restoring and replacing missing teeth</li> <li>• Create dentures, bridges, crowns, and other dental prosthetics to improve a person's smile, function, and appearance</li> </ul>
<b>Oral Rehabilitative Professionals</b>	<ul style="list-style-type: none"> <li>• A team of dental specialists who work together to restore a patient's oral health and function</li> </ul>

<b>Physicians</b>	<ul style="list-style-type: none"> <li>• Play a role in oral health by identifying and managing systemic conditions that can affect oral health, such as diabetes and HIV/AIDS</li> <li>• May also prescribe medication to treat oral infections or manage pain</li> </ul>
<b>Psychologists</b>	<ul style="list-style-type: none"> <li>• Can help address dental anxiety and phobia, which can interfere with a person's ability to seek dental care</li> <li>• Can provide therapy to help patients develop coping mechanisms for dental fear and anxiety</li> </ul>
<b>Physiotherapists</b>	<ul style="list-style-type: none"> <li>• Can help treat temporomandibular joint disorder (TMJ), which can cause pain and discomfort in the jaw joint</li> <li>• May use massage, exercises, and other techniques to improve jaw mobility and reduce pain.</li> </ul>

#### **SUPPORT SYSTEMS FOR PEOPLE WITH DENTAL CONDITIONS AND DENTAL HYGIENE**

<b>Department of Health (DOH)</b>	<p>The primary responsibility of the DOH is to develop policies and guidelines for local government units. The program aims to achieve this objective by offering preventive, curative, and promotive dental healthcare services to Filipinos throughout their lives. This approach entails providing a comprehensive continuum of quality care through a set of essential basic oral health care (BOHC) services tailored to each stage of life, from infancy to old age.</p> <p>To ensure the full implementation of the Dental Health Program (DHP), the following actions will be taken:</p> <ul style="list-style-type: none"> <li>• Formulate policies and regulations to support the implementation of the DHP.</li> <li>• Guarantee financial accessibility to essential public and personal oral health services.</li> <li>• Establish relevant, timely, and accurate information management systems for oral health.</li> <li>• Ensure access to and delivery of high-quality oral health care services.</li> <li>• Train and motivate health professionals and auxiliary staff to effectively manage and provide quality oral health care.</li> </ul>
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<b>American Dental Association (ADA)</b>	Our mission is to empower dentists to thrive while promoting public health advancement. We advocate for public health by addressing vital issues like access to care and the regulatory framework governing dentistry. Additionally, we serve as a reliable source for cutting-edge research on oral health, offering practical practice guidelines, industry trend data, and various programs aimed at supporting personal health and professional success.
<b>Oral Health Foundation</b>	For almost five decades, the Oral Health Foundation has played a pivotal role in shaping global oral health through education and support. Throughout this time, our focus has been on enhancing people's attitudes and behaviors regarding oral care and hygiene. We collaborate closely with oral health educators, healthcare professionals, schools, and workplaces to promote and facilitate the delivery of oral health education, particularly in disadvantaged communities and areas with known oral health disparities.

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