

# Dental Hygiene Diagnosis

An ADHA White Paper



American  
Dental  
Hygienists'  
Association

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## **INTRODUCTION**

It is the position of the American Dental Hygienists' Association (ADHA) that the dental hygiene diagnosis is a necessary and intrinsic element of dental hygiene education and scope of practice.<sup>1</sup> ADHA supports dental hygiene curricula that lead to competency in the dental hygiene process of care: assessment, dental hygiene diagnosis, planning, implementation, evaluation and documentation.<sup>2</sup>

This white paper will assist dental hygiene educators with teaching dental hygiene students on developing a dental hygiene diagnosis based on the ADHA definition of dental hygiene diagnosis, differentiating between dental diagnosis and dental hygiene diagnosis, describing the current state of dental hygiene diagnosis in practice, explaining the importance of dental hygiene diagnosis, and outlining future recommendations for dental hygiene educators. This paper will also assist licensed clinicians with the correct application of dental hygiene diagnosis to support best practices. Equally important, this white paper is designed to provide understanding, clarity and guidance to policymakers during legislative and regulatory deliberations on the issue of diagnosis and scope of practice.

## **DEFINING DENTAL HYGIENE DIAGNOSIS**

In order to understand the term dental hygiene diagnosis and its significance to the process of care provided to patients, it is important to have an understanding of the basic term diagnosis.

Diagnosis is defined as

- 1) the art or act of identifying a disease from its signs and symptoms;
- 2) the decision reached by diagnosis.<sup>3</sup>

In other words, diagnosis is both a process and its outcome. Likewise, the dental hygiene diagnosis is both a process and its outcome. Without the process of diagnosis, a treatment plan — a required component of the dental hygiene process of care — is not possible.

**ADHA Definition of Dental Hygiene Diagnosis:** The identification of an individual's health behaviors, attitudes, and oral health care needs for which a dental hygienist is educationally qualified and licensed to provide. The dental hygiene diagnosis requires evidence-based critical analysis and interpretation of assessments in order to reach conclusions about the patient's dental hygiene treatment needs. The dental hygiene diagnosis provides the basis for the dental hygiene care plan.<sup>4</sup>

ADHA defines dental hygiene diagnosis as:

The identification of an individual's health behaviors, attitudes, and oral health care needs for which a dental hygienist is educationally qualified and licensed to provide. The dental hygiene diagnosis requires evidence-based critical analysis and interpretation of assessments in order to reach conclusions about the patient's dental hygiene treatment needs. The dental hygiene diagnosis provides the basis for the dental hygiene care plan.<sup>4</sup>

In contrast, the Commission on Dental Accreditation's (CODA) Accreditation Standards for Dental Hygiene Education Programs includes a limited definition of dental hygiene diagnosis in the Definition of Terms:

Dental Hygiene Diagnosis: Identification of an existing or potential oral health problem that a dental hygienist is qualified and licensed to treat.<sup>5</sup>

As the health care delivery system continues to change, the dental hygiene diagnosis must continue to be an integral component of dental hygiene care. When clinicians recognize that dental hygiene diagnosis is an essential phase of the process of care,<sup>6</sup> patient needs are more accurately reflected in professional communications, which supports the provision of treatment and appropriate referrals to other health care providers.

## **DENTAL HYGIENE DIAGNOSIS DISTINGUISHED FROM DENTAL DIAGNOSIS**

As the ADHA definition of dental hygiene diagnosis makes clear, the areas of diagnosis for a dental hygienist are focused on patient health behaviors, attitudes and oral health care needs that a dental hygienist is educationally qualified and licensed to treat. In contrast, the dental diagnosis is the identification of diseases or

conditions for which the dentist directs or provides the primary treatment.<sup>7</sup> Though a definition for the term diagnosis or dental diagnosis is not found in the CODA Accreditation Standards for Dental Education Programs or in the American Dental Association (ADA) Glossary of Dental Clinical and Administrative Terms, dentists focus on diagnosing and treating those conditions for which they are educated and licensed in the same manner that dental hygienists diagnose and provide care within the scope of their education and license. Dentists and dental hygienists work collaboratively as part of the oral health care team.

The dental hygiene diagnosis has been called complementary to the dental diagnosis and a method for encouraging collaboration between the practice of dental hygiene and dentistry.<sup>8</sup> All dental hygienists need to collaborate with dental practitioners for care outside the dental hygienist's scope of practice. This concept is essential to embrace for two reasons. The first involves changes in health care delivery, especially for vulnerable populations, that allow direct access\* to dental hygiene services. Especially in these settings, it is incumbent upon the dental hygienist to identify existing or potential oral health problems that a dental hygienist is qualified and licensed to treat.

The second reason for embracing the complementary and collaborative view of dental hygiene diagnosis and dental diagnosis is the interaction of oral health care professionals with other health care providers as interprofessional education and collaboration become the standard for educational and practice settings. In these settings, as in direct access settings, the dental hygiene diagnosis is essential for the dental hygienist's communication with health care professionals involved in the patient's care outside of dentistry who, for example, might not understand the significance of bleeding on probing, but will know that gingivitis or periodontal disease is a condition that is a health concern. Using the proper terminology of a dental hygiene diagnosis will assist patients in receiving the care they need and in accessing insurance coverage benefits for their care.

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\* Direct access refers to the ability of a dental hygienist to initiate treatment based on their assessment of a patient's needs without the specific authorization of a dentist, treat the patient without the presence of a dentist, and maintain a provider-patient relationship.<sup>9</sup>

## **CURRENT STATE OF DENTAL HYGIENE DIAGNOSIS IN EDUCATION AND PRACTICE**

Despite the widespread practice of dental hygienists performing dental hygiene diagnosis, as a result of a resolution brought forth by the ADA House of Delegates, CODA removed “dental hygiene treatment plan” and “dental hygiene diagnosis” from the Accreditation Standards for Dental Hygiene Education Programs effective January 1, 2010.

These terms had been part of the standards since 1998. The removal of “dental hygiene diagnosis” from the dental hygiene education standards was not supported by any evidence and does not correlate with the dental hygiene process of care. In fact, dental hygiene diagnosis was retained in the “definition of terms” used in the CODA dental hygiene education standards. Dental hygiene education programs have been including and many continue to include assessment, dental hygiene diagnosis, planning, implementation, evaluation and documentation as education competencies as supported by ADHA research.<sup>10</sup>

ADHA conducted an online survey of licensed dental hygienists in the 50 states and the District of Columbia in the fall of 2012 to collect information on personal demographics, prior and current education, current employment, continuing education, membership in professional associations, workforce issues, job satisfaction and attitudes and opinions regarding the current issues facing dental hygienists in the U.S. today. A total of 6,968 registered dental hygienists responded to the survey. **Eighty-five percent** of licensed dental hygienists indicated that they conduct dental hygiene diagnosis in their clinical practice.<sup>11</sup>

In November 2015, ADHA conducted an online survey of dental hygiene program directors.<sup>10</sup> The survey was sent to program directors in all levels of dental hygiene programs. Of the program directors responding to the question (n=213), **100 percent** indicated that their program offers clinical education in the following areas:

- Dental hygiene assessment
- Treatment planning
- Documentation
- Prophylaxis
- Patient education

**Ninety-nine percent** of the program directors responding indicated that dental hygiene diagnosis was commonly offered in clinical education courses.

Effective January 1, 2016, CODA revised the Accreditation Standards for Dental Hygiene Education Programs, and created a new standard 2-18 in the “Patient Care

Competencies” section, which states:

Where graduates of a CODA accredited dental hygiene program are authorized to perform additional functions required for initial dental hygiene licensure as defined by the program’s state specific dental board or regulatory agency, program curriculum must include content at the level, depth, and scope required by the state. Further, curriculum content must include didactic and laboratory/preclinical/ clinical objectives for the additional dental hygiene skills and functions. Students must demonstrate laboratory/preclinical/clinical competence in performing these skills.<sup>5</sup>

## **Dental Hygiene Diagnosis in State Statute**

The new standard 2-18 is significant as applied to dental hygiene diagnosis since state dental hygiene practice acts govern scope of practice. State statutes are typically silent on what degree of patient evaluation is included in the dental hygiene scope of practice. However, in 2004 and 2009 respectively, Oregon and Colorado became the first states to specifically authorize the dental hygiene diagnosis as part of the dental hygienist’s scope of practice. Oregon state statute and state regulation specifically include diagnosis within the definition of dental hygiene and permit dental hygienists to diagnose, treatment plan and provide dental hygiene services.<sup>12</sup>

Under Colorado state statute, dental hygienists may “perform dental hygiene assessment, dental hygiene diagnosis, and dental hygiene treatment planning for dental hygiene services.”<sup>13</sup> As the dental hygiene profession continues to evolve, it is increasingly more important that dental hygiene diagnosis be recognized and explicitly named in state statutes and regulations. This allows dental hygienists to work to the top of their education and more efficiently and effectively bring people into the oral health pipeline, making referrals as warranted.

## **Dental Hygiene Diagnosis: What Does It Look Like?**

There are several proposed conceptual models of dental hygiene diagnosis, including the Darby and Walsh model and the Swigart and Gurenlian model. The former utilizes the dental hygiene human needs conceptual model by basing the dental hygiene diagnosis on assessed deficits in eight human needs related to dental hygiene care.<sup>7</sup> The latter is a combination of the former model and the medical model and focuses on problem solving and decision making to arrive at a dental hygiene diagnosis that is readily understood and used by a wide variety of health care providers.<sup>14</sup> For examples of how the models can be implemented, see Appendix A.

## Comparison of Dental Hygiene Diagnosis and Dental Diagnosis Models

Dental Hygiene Diagnosis (Darby and Walsh Model) <sup>7</sup>	Dental Hygiene Diagnosis (Swigart and Gurenlian Model) <sup>14</sup>	Dental Diagnosis <sup>7</sup>
Identifies an unmet human need (human need deficit)	Identifies health conditions, risk status, and readiness for health interventions relevant to dental hygiene care	Identifies a specific oral disease
Identifies conditions or problems (unmet human needs) within the scope of dental hygiene practice	Identifies health conditions or problems within the scope of dental hygiene practice for which the dental hygienist provides care, coordinates care for interprofessional collaborative treatment, and makes necessary referrals for continued care	Identifies conditions or problems for which the dentist directs the primary treatment
Often deals with patient's perceptions, beliefs, attitudes and motivations regarding his/her oral status	Uses evidence that supports the dental hygiene diagnosis including pathophysiologic findings, the clinician's expertise, and the patient's perspective about his/her health status	Often deals with the actual pathophysiologic changes
May change as the patient's responses and behaviors change	Dynamic process that is influenced by changes in health conditions, patient's responses and behaviors, and treatment interventions that are implemented	Remains the same for as long as the disease is present

Chart adapted and used with permission Darby & Walsh Dental Hygiene Theory and Practice 4<sup>th</sup> edition

## IMPORTANCE OF DENTAL HYGIENE DIAGNOSIS

Dental hygiene diagnoses identify patient needs that can be addressed by dental hygiene interventions in individualized treatment plans.<sup>6,7</sup> These may include, but are not limited to, multiple diagnoses pertaining to:

- general health status and related impact on vital signs, risks for medical emergencies and selection of topical and local anesthetic agents;
- risk for drug interactions with local anesthetic agents and other medications used during treatment;
- risk for adverse events from inadequate pain control and anxiety and impact on plans for pain management;

- risks for oral infections, including bacterial, fungal and viral infections;
- level of health literacy and impact on compliance and behavioral changes related to self-care; and
- risks for infectious diseases and/or cancers of the head and neck.<sup>14</sup>

Diseases can be addressed only if diagnosed.<sup>15</sup> After completing thorough risk and oral assessments and a health history review, the dental hygienist establishes the dental hygiene diagnoses specific for the individual patient. In many cases, there will be more than one dental hygiene diagnosis for a patient. Each one will need to be carefully considered when developing the dental hygiene treatment plan. Only after making the dental hygiene diagnosis can the clinician formulate a plan that focuses on dental hygiene education, patient self-care practices, prevention strategies, and treatment and evaluation protocols to address the patient's oral health needs.<sup>14</sup>

A vital aspect of the dental hygiene process of care is conveying the diagnosis to the patient. Naming the condition and thereby providing the patient with a dental hygiene diagnosis is important to communication and the patient's understanding of his or her condition and the treatment plan. Patients are more likely to accept treatment if a diagnosis is established and explained.<sup>15</sup> For instance, in periodontal diseases, early, accurate periodontal diagnosis is pertinent in order to deter the progression of the disease.<sup>15</sup> Gaining patient acceptance for dental hygiene treatment is the first step in improving individual oral health outcomes and establishing the patient as a partner in the process.<sup>14</sup> This communication will involve the patient's informed consent to care, which is required by most state statutes. There are generally six components to the consent process; these may vary by state, but frequently include diagnosis, purpose of the proposed treatment, risks, likelihood of success, alternatives and prognosis.<sup>16</sup>

Many oral conditions require a lifetime of preventive interventions and regular maintenance to stop progression. Documenting the dental hygiene diagnosis is necessary to identify the patient's current oral health status, which also serves as a reference point for planning future continuity of care. Dental hygiene diagnoses are used to formulate a dental hygiene care plan, to communicate oral health status and related treatment needs to the patient, to gain patient acceptance of projected interventions, and to improve overall dental hygiene outcomes for patients.

## **RECOMMENDATIONS**

With the ADHA leading the transformation of dental hygiene education and preparing the profession for the 21<sup>st</sup> century, dental hygiene educators are responsible for educating clinicians who are competent providers in both the current and future health care system. Dental hygienists will increasingly become providers

within interprofessional care teams. A growing number of dental hygienists may seek opportunities to become advanced practitioners, pursuing higher education and specialized knowledge that will enable them to work in a variety of health care settings, treating a more diverse patient population. Patients at any age, in any health care setting, can present with complex medical histories with multiple comorbidities, which requires clinicians to have a more sophisticated set of diagnostic skills in order to render safe treatment. The ability to formulate dental hygiene diagnoses requires a strong educational foundation that prepares clinicians to accurately assess risk factors for disease, diagnose oral and systemic health conditions, and plan for the delivery of comprehensive care.

To this end, educators must prepare both future clinicians and future faculty members to formulate and use dental hygiene diagnosis in the classroom and in clinical practice. Graduate programs that have curricular emphasis on preparing advanced clinicians should devote time to improving the diagnostic skills of their students to better equip them for advanced practice. Given that diagnosis is a critical component of both the dental hygiene process of care and the ADHA Standards for Clinical Dental Hygiene Practice, every effort should be made to reinstate dental hygiene diagnosis into the CODA dental hygiene education standards.<sup>6,17</sup> In conformance with ADHA policy, state statutes and regulations must be clear in recognizing dental hygiene diagnosis within the dental hygiene scope of practice.<sup>1</sup>

### **Recommendations**

1. Educators must prepare future clinicians and future faculty members to formulate and use dental hygiene diagnosis in the classroom and clinical practice.
2. Graduate programs that have curricular emphasis on preparing advanced clinicians should devote time to improving the diagnostic skills of their students to better equip them for advanced practice.
3. The CODA Dental Hygiene Review Committee should formally recommend and request that dental hygiene diagnosis be reinstated in the Accreditation Standards for Dental Hygiene Education Programs.
4. State statutes should be amended to allow dental hygienists to practice to the full extent of their education. State statutes and regulations should explicitly include dental hygiene diagnosis.

### **CONCLUSION**

Dental hygiene diagnosis, as part of the dental hygiene process of care, is an essential element to providing dental hygiene care to the public. Educators are essential in establishing a foundational knowledge of dental hygiene diagnosis and facilitating the application of dental hygiene diagnosis in a clinical setting. As the

landscape of health care continues to change, dental hygienists as primary oral health care providers must utilize the dental hygiene diagnosis and dental hygiene process of care in the delivery of care to improve the lives of the patients they serve.

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## Appendix A

### Examples of Dental Hygiene Diagnosis

#### Darby and Walsh Model

A 72-year-old white male presents with brown, soft, crumbling enamel on multiple mandibular teeth at the gingival margin. While taking the medical and dental health history, it is discovered that the patient has xerostomia from his cardiac medications and sucks on sweet candies daily to alleviate dry mouth symptoms.

*Dental hygiene diagnosis #1:* Unmet need of biologically sound and functioning dentition caused by excessive consumption of sweet candies as evidenced by brown, soft, crumbling enamel of multiple teeth at the gingival margin.

Treatment: Refer for evaluation of restorative needs and educate the patient on strategies to maintain healthy teeth including the recommendation of sugarless candies and gums with xylitol and fluoride varnish application.

*Dental hygiene diagnosis #2:* Unmet need of skin and mucous membrane integrity of head and neck caused by cardiac medications as evidenced by xerostomia.

Treatment: Patient education and prescription recommended: salivary substitute rinses for xerostomia, provide dietary assessment and counseling for oral disease, and discuss link between oral and systemic health.

#### Swigart and Gurenlian Model

A 56-year-old overweight male presents with hypertension. Patient states he is taking the medication hydrochlorothiazide (HCTZ). He has smoked one pack of cigarettes per day for the last 40 years. Due to dental fear, he has not been to a dental office for four years. The oral health exam reveals generalized moderate periodontitis with 4-6 mm periodontal pocketing.

<b>Assessments</b>	Health history and dental history evaluations Social, economic, cultural, lifestyle, and oral habit considerations Vital signs; IO/EO exam; Full mouth radiographs Complete periodontal exam and complete hard tissue exam Risk assessments: dental caries; periodontal; oral pathology Salivary flow test (revealed xerostomia) Blood glucose testing (normal results) One day dietary recall (revealed high intake of fermentable carbohydrates)
<b>Dental Hygiene Diagnosis</b>	#1 General Health Factors: Hypertension; potential for other cardiovascular diseases given he is overweight #2 Generalized moderate periodontitis #3 Xerostomia (possible side effect from HCTZ medication) #4 Potential for head and neck and lung cancers due to smoking history

	<p>#5 Dental caries risk due to xerostomia and diet  #6 Patient anxiety (patient stated)  #7 Knowledge deficit (has not been to dental office for four years)</p>
<p><b>Planning</b></p>	<p>Referrals: Dietitian; ear, nose, and throat (ENT) physician for sleep apnea evaluation; cardiologist to evaluate cardiovascular disease  Stress reduction protocol; vitals taken every appointment  <u>Patient education</u>: Discuss results of salivary flow test, periodontal evaluation, and risk assessments; systemic/lifestyle changes; nutritional counseling; discuss need for meticulous patient self-care practices; recommendations for xerostomia <i>Ask, Advise, Refer</i> model for smoking cessation  Teach patient head and neck cancer self-exam  Four appointments for nonsurgical periodontal therapy (NSPT) with local anesthetic 1:100,000 epinephrine (2 cartridge maximum per appointment). Re-check blood pressure after local anesthetic administered.  Nitrous oxide-oxygen analgesia each appointment as needed for anxiety  Evaluate for possible orthostatic hypotension prior to dismissing patient  Four-six week re-evaluation appointment to include periodontal exam, use of local-delivery antimicrobials if needed, polishing, fluoride varnish application, and referral to periodontist pending results from NSPT  Determine periodontal maintenance intervals (2, 3, or 4 month)  Present and document dental hygiene care plan  Obtain and document informed consent</p>

**Acknowledgement:** Sincere appreciation is extended to the members of the Dental Hygiene Diagnosis Task Force, other ADHA committee members and staff who were involved in the writing, review and final design and production of this ADHA white paper.

**Dental Hygiene Diagnosis Task Force Membership:**

Rachel Kearney, RDH, MS, Ohio, Chair

Ann Eshenaur Spolarich, RDH, PhD, Arizona

Darlene Swigart, RDH, BS, California

Marilynn Rothen, RDH, MS, Washington

Susan Callahan Barnard, DHSc, RDH, New Jersey

**ADHA Staff:**

Pam Steinbach, RN, MS, Director of Education and Research

Michelle Smith, RDH, MS, Manager of Dental Hygiene Education

Ann Lynch, Director, Governmental Affairs

ADHA Board of Trustees Advisor:

Diana Saylor, RDH, Tennessee