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WHITE PAPER

# DENTAL HYGIENE DIAGNOSIS

## Defining the Essential Role of Diagnostic Decision-Making in Dental Hygiene

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WHITE PAPER

# Dental Hygiene Diagnosis

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# Executive Summary

## Dental hygiene diagnosis is essential to comprehensive, person-centered care focused on health promotion, disease prevention, and clinical excellence.

Dental hygienists rely on complex clinical reasoning to provide safe, comprehensive, person-centered care. Dental hygiene diagnosis is a critical link between assessment and individualized treatment planning and is integral to the dental hygiene process of care. Dental hygiene diagnoses are not merely academic constructs; they consistently support professional autonomy, accountability, evidence-based decision making, and clear clinical judgment while strengthening interdisciplinary communication and responsibility for patient outcomes. Without this diagnostic framework, patient care risks becoming task-oriented rather than individualized and outcome-driven. This white paper examines dental hygiene diagnosis as a defining component of professional practice and offers recommendations to advance its recognition, application, and documentation.

# Introduction

## What is Dental Hygiene Diagnosis?

Across all professions, a diagnosis represents the conclusions, determinations, decisions, or judgments reached through a systematic evaluation of findings. In dental hygiene, diagnosis is an essential component of clinical practice. Dental hygienists interpret assessment data to make informed, evidence-based decisions that guide patient care.

For example, when a patient presents with elevated blood pressure, the dental hygienist recognizes the potential risk for a medical emergency, implements stress-reduction measures, and refers the patient for medical evaluation. In a school-based sealant program, the dental hygienist assesses each child's dentition, diagnosing the presence or absence of dental caries to determine sealant eligibility. Similarly, when heavy biofilm accumulation and early signs of demineralization are identified, the dental hygienist diagnoses a high caries risk and provides fluoride varnish, oral hygiene instruction, and dietary counseling. When a patient reports homelessness, a diagnosis related to social determinants of health guides the dental hygienist in making appropriate referrals. These diagnoses are grounded in professional education, clinical evidence, and ethical responsibility and are critical to ensuring patient safety and well-being.[1] Dental hygiene diagnoses, therefore, extend well beyond the periodontal disease diagnosis that must be established for every patient.

**Diagnosis**
In diagnosis, the root -gnosis means "knowledge," the prefix dia- means "through," and the suffix -sis denotes a process.[6-7] Together, they describe the systematic process of determining a disease or condition by thoroughly understanding and interpreting its signs, symptoms, and underlying factors.

Each patient encounter involves a diagnostic process that includes analyzing findings, identifying needs or risks, and recommending appropriate interventions. This process parallels the diagnostic reasoning used in various fields, including nursing, paramedics, mechanics, plumbing, and business management. However, dental hygienists practice within specific ethical and professional frameworks. According to the American Dental Hygienists' Association (ADHA) Standards for

## Dental Hygiene Diagnosis Facilitates Communication with the Dentist

Clinical Dental Hygiene Practice[2], dental hygienists are obligated to provide patient care based on thorough assessment, comprehensive diagnosis, and evidence-based decision-making. The longstanding miscon-ception that dental hygienists "do not diagnose" must be dispelled; diagnostic reasoning is employed routinely in every clinical interaction and is fundamental to sound clinical judgment.[3-5]

Dental hygienists cannot make decisions within their defined scope of practice without using dental hygiene diagnosis (DHDx). This diagnostic framework is essential for effective communication with the dentist to ensure comprehensive, person-centered care. In all practice settings, whether supervised or independent, dental hygienists are expected to gather, interpret, and synthesize clinical data, reporting significant findings that support overall diagnostic and treatment planning processes.

While dental hygienists do not diagnose the need for specific restorative or surgical procedures, they provide key diagnostic information that enhances the efficiency and accuracy of dental treatment planning. For example, a dental hygienist might diagnose the need for periapical radiographs prior to the dental examination to facilitate a more com-plete diagnostic assessment. In states that permit independent dental hygiene practice, dental hygienists might diagnose the need for dental sealants and provide the service accordingly.

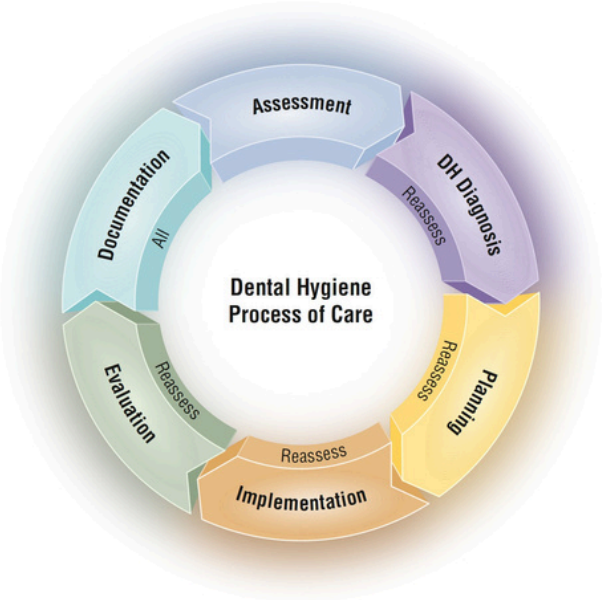
Dental hygienists function more effectively as collaborative members of the dental team when they apply DHDx to support the overall patient care plan. Importantly, DHDx is not an expansion of duties; it is a current and expected component of professional practice.[2]

# ADHA Definition and Standards of Clinical Dental Hygiene Practice

The ADHA recognizes the essential role of DHDx in person-centered care and defines DHDx as "the identification of an individual's health behaviors, attitudes, and oral health care needs for which a dental hygienist is educa-tionally qualified and licensed to provide."[2] Dental hygiene care is fundamentally aimed at maintaining health and preventing the onset of disease.[2] Early intervention and disease prevention are achievable only when dental hygiene diagnoses are accurately identified and appropriately addressed.

Formulating a dental hygiene diagnosis involves critically analyzing information gathered from health history forms, patient interviews, and thorough clinical assessments.[2] As a foundational element of preventive care, identified risk factors must be systematically interpreted to support sound clinical judgment and effective care planning. Person-centered care also necessitates integrating the patient's individual values, preferences, and needs into the diagnostic process.[2]

By synthesizing health history information, systemic health considerations, and clinical and risk assessment findings, dental hygienists develop diagnostic statements that guide the care plan, ensuring that all aspects of the patient's oral and overall health needs are addressed. When all relevant categories are considered, multiple diagnostic statements are typically generated for each patient. The resulting care plan should address each diagnostic statement through appropriate clinical interventions, patient education, self-care strategies, counseling, preventive measures, referrals when indicated, and follow-up at subsequent appointments.[2]

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## Commission on Dental Accreditation (CODA)

The Commission on Dental Accreditation (CODA) defines DHDx as the "identification of an existing or potential oral health problem that a dental hygienist is qualified and licensed to treat." [8] CODA establishes national standards for dental hygiene education programs to ensure that graduates possess the knowledge, skills, and professional judgment required to provide safe, effective, and ethical patient care. As part of these expectations, CODA mandates that dental hygiene curricula incorporate the dental hygiene process of care as a systematic framework guiding clinical decision-making and service delivery.[8] The six components of the dental hygiene process of care are assessment, DHDx, planning, implementation, evaluation, and documentation.[2]

According to CODA Standard 2-13, students must demonstrate competence in all phases of the process of care, including the ability to analyze and interpret assessment data to identify a patient's oral health needs. This analytical component forms the basis of the DHDx and requires the integration of critical thinking and problem-solving skills, as emphasized in Standards 2-13 and 2-23.[8] In this context, critical thinking encompasses evaluating the relevance of clinical findings, distinguishing between normal and abnormal conditions, assessing risk factors, and prioritizing care in alignment with patient needs, preferences, and evidence-based guidelines. These problem-solving abilities are not merely academic expectations; they are essential professional competencies that directly influence the quality and safety of patient care.

Dental hygiene educators play a central role in cultivating these competencies by designing curricula, learning experiences, and assessments aligned with CODA standards. Through this alignment, educators ensure that future dental hygienists are prepared to analyze patient data, formulate accurate dental hygiene diagnoses, and integrate those diagnoses into comprehensive, person-centered care plans that reflect the highest standards of professional practice.

The emphasis on DHDx also aligns with the ADHA position that dental hygienists are responsible for identifying and addressing oral health needs within their scope of practice.[2] This diagnostic step is integral to promoting continuity in coordination of care to support interprofessional and collaborative practice. When graduates enter the profession proficient in the process of care and capable of formulating accurate diagnoses, they strengthen the delivery of comprehensive care that supports health promotion, disease prevention, and clinical excellence.

## A Brief History of Dental Hygiene Diagnosis

The evolution of the DHDx can be traced to early textbook discussions that explored the role of diagnostic decision-making in dental hygiene practice.[9-11] Historically, dental hygienists worked primarily under dentist supervision, focusing on prophylaxis and preventive education without a formally recognized diagnostic role.[12]

As educators and professional leaders began to emphasize critical thinking and patient-centered care, the clinical application of DHDx expanded.[13-14] The ADHA formalized the concept in its 2016 White Paper, defining DHDx as the hygienist's clinical judgment regarding the patient's oral health needs, risks, and behaviors within the scope of practice. This clarification distinguished the DHDx from both dental and medical diagnoses.[15]

Qualitative research evaluating dental hygienists' use of DHDx confirmed both its application in practice and its importance in guiding care.[5] Integration of the concept into dental hygiene curricula and incorporation into the Standards for Clinical Dental Hygiene Practice further established DHDx as a core step within the dental hygiene process of care, linking assessment to planning, implementation, and evaluation.[2,16]

International scholarship continues to advance the understanding and application of DHDx, with growing emphasis on interprofessional collaboration and risk-based, person-centered models. This body of work underscores the ongoing relevance of DHDx and its potential for continued development within global oral healthcare systems.[17-19]

Emerging technologies, such as artificial intelligence, are also entering the discussion as diagnostic adjuncts capable of interpreting radiographs and annotating pathology to support clinical decision-making. However, questions remain regarding provider perceptions and the integration of AI into existing workflows.[20-23]

## Current Status in State Practice Acts[24]

Notably, three states explicitly reference DHDx within their dental practice acts (e.g., Colorado, Oregon, and Maine, with some variation in interpretation among additional states). In contrast, 20 states authorize dental hygienists to perform comprehensive assessments and develop treatment plans within the dental hygiene scope of practice. Through these processes, dental hygienists engage in critical thinking and apply the principles of DHDx necessary to formulate accurate and effective care plans.

**Dental Hygiene Diagnosis in State Practice Acts**

| | |
|---|---|
| **3** | **Explicitly reference DHDx** in practice acts (CO, OR, ME) |
| **20** | Authorize **comprehensive assessments** and treatment plans |
| **38** | Permit **sealant placement** without prior dentist exam |
| **42** | Allow **independent prophylaxis** without prior evaluation |

Thirty-eight states permit dental hygienists in community health settings to diagnose the need for dental sealants and place them without a prior dentist examination, demonstrating the profession's recognized competency, clinical judgment, and diagnostic expertise. Similarly, 42 states allow dental hygienists practicing independently to provide prophylaxis without prior dentist evaluation, underscoring their ability to classify periodontal conditions and determine whether a prophylaxis or more advanced treatment is indicated. Oregon allows expanded practice dental hygienists, with a collaborative agreement with a dentist and after a dental diagnosis, to place Interim Therapeutic Restorations (ITR) without supervision, reflecting increased professional autonomy.[25] Colorado maintains similar supervision requirements for ITRs, while also permitting dental hygienists to prescribe and place silver diamine fluoride (SDF) without dental supervision.[26] Collectively, these provisions reflect widespread recognition of dental hygienists' diagnostic capabilities and highlight the essential role they play in patient assessment, diagnostic decision-making, preventive care, and treatment planning across diverse practice environments.

Despite this expectation of dental hygiene professionals, inconsistent terminology across state practice acts continues to create confusion regarding the definition and acceptability of DHDx. Nevertheless, regardless of jurisdiction, it is well established that dental hygienists are responsible for interpreting assessment findings, determining the dental hygiene diagnoses, and formulating the dental hygiene care plan.

# Standardization of Terminology

The DHDx is incorporated in dental hygiene educational curricula where its instruction fosters diagnostic reasoning, enhances student autonomy, and builds confidence in formulating person-centered care plans. Despite this integration, standardized terminology for DHDx remains limited.[16] Curricular surveys highlight variation in how programs define and teach the diagnostic process, emphasizing the need for unified language and standardized diagnostic concepts.[16]

This discrepancy in terminology is further complicated by differences in state scope-of-practice regulations, which influence whether dental hygienists are legally authorized to perform a DHDx.[24, 27-30] Even as educational programs advance, these regulatory and terminological inconsistencies present ongoing challenges to consistent implementation.

The Maine Board of Dental Practice provides a clear example of concise language, defining dental hygiene as "the delivery of preventative, educational and clinical services supporting total health for the control of oral disease and the promotion of oral health provided by a dental hygienist." Further defining DHDx as the "identification of an existing oral health problem that a dental hygienist is qualified and licensed to treat" including, dental hygiene assessment, dental hygiene diagnosis and dental hygiene treatment planning and implementation in the identification, prevention and management of oral disease."[31]


Additionally, the Colorado Dental Practice Act defines "dental hygiene diagnosis" as the identification of an oral health problem that a dental hygienist is qualified and licensed to treat within the dental hygiene scope of practice and emphasizes behavioral risks and physical conditions related to oral health and explicitly distinguishes the DHDx from the dental diagnosis, noting that dentists confirm conditions "outside the scope of dental hygiene practice".[26]

Evidence from practice supports the benefits of clear terminology. Qualitative interviews with clinical dental hygienists demonstrate that using the DHDx to guide patient conversations improves patient understanding during decision making.[5] Moreover, when dental hygienists broaden their diagnostic responsibilities to include formal documentation of the DHDx, the likelihood of improved systemic and oral health outcomes can increase.[32]

Taken together, these studies depict a profession in transition advancing toward greater autonomy and clarity of practice while navigating the complexities of embedding the DHDx across all phases of the dental hygiene process of care.

# Contemporary Models of Dental Hygiene Diagnosis

## Dental Hygiene Diagnosis Model
(Gurenlian and Swigart)[14, 33]

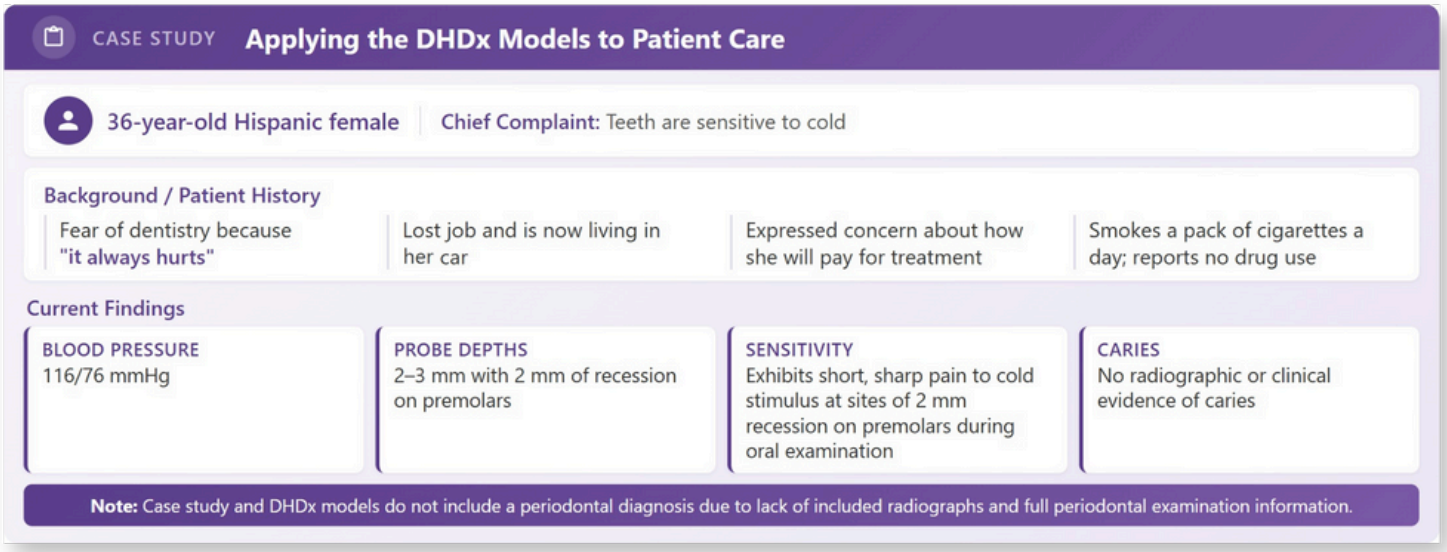
The Dental Hygiene Diagnosis (DHDx) Model, developed by Gurenlian and Swigart, categorizes diagnostic statements into ten primary domains: systemic health, patient needs, values and preferences, behavioral health, social determinants of health, extraoral and intraoral assessment, dental assessment, and four categories related to periodontal health. Each diagnosis derived from patient assessment is accompanied by contributing factors that identify the underlying causes or etiologies. The model's final column outlines potential care-planning interventions such as treatment, education, counseling, and referrals, designed to address both the diagnosis and its contributing factors.

Presented in a clear, chart-based format, the DHDx Model is intended to support practical application in clinical patient care. The authors note, however, that the model is not exhaustive; additional assessment categories, diagnostic statements, contributing factors, and interventions may be necessary to meet the diverse needs of the populations served by dental hygienists.

## Human Needs Model
(Darby and Walsh)[34]

The Human Needs Model, developed by Darby and Walsh, delineates eight categories of human needs: protection from health risks; freedom from fear and stress; freedom from pain; a wholesome facial image; skin and mucous membrane integrity of the head and neck; biologically sound and functional dentition; conceptualization and problem-solving; and responsibility for oral health. These categories align with patient needs identified during the assessment phase of care.

Within this framework, assessment findings, specifically the signs and symptoms observed, are used to determine which human needs remain unmet, forming the foundation for diagnosis. Once these unmet needs are identified, targeted care plan interventions are developed. Following communication of the care plan to the patient, individualized goals and expected outcomes are collaboratively established to guide care delivery and evaluation.



## **Dental Hygiene Diagnosis Model** (Gurenlian & Swigart)

| Assessment Category | Dental Hygiene Diagnosis (DHDx) | Contributing Factors (due to) | Care Planning (Treatment, Education, Counseling, Referrals) |
|---|---|---|---|
| **Behavioral Health** *(Client fear expressed)* | **Patient reported dental anxiety/fear** | Previous dental experiences | • Stress reduction protocol<br>• Possible nitrous oxide-oxygen analgesia |
| **Social Determinants of Health**[35] *(Employment; finances; housing; personal safety)* | **Personal safety concerns; financial strain; housing barriers** | Lost job, homelessness, living in car, expressed concerns regarding paying for dental treatment | • Referral/education: Findhelp.org for local resources<br>• Referral to social services<br>• Referral to local women's shelter<br>• Referral for dental payment assistance program |
| **Dental Assessment** *(Intraoral pain or sensitivity)* | **Dentinal hypersensitivity** | Exposed root surfaces; patient reported short, sharp pain to cold at sites of 2mm premolar recession | • Referral to dentist for evaluation<br>• Oral health self-care education for brushing technique<br>• Dispense soft-headed toothbrush<br>• Apply professionally applied desensitizing agents<br>• Recommend/dispense toothpaste with desensitizing properties<br>• Appointment for re-evaluation |
| **Extraoral/Intraoral** | **High oral cancer risk** | Tobacco use | • Smoking/tobacco cessation counseling<br>• Instructions for oral cancer self-exam<br>• Referral to physician |

### Diagnostic Statements for Dental Hygiene Diagnosis Model (Gurenlian & Swigart)

- Patient reported dental fear due to previous dental experiences.
- Personal safety concerns due to lost job, homelessness and living in a car.
- High risk for oral cancer due to tobacco use (smoking).
- Financial strain (employment) and housing barriers due to lost job, homelessness, living in a car, and expressed concerns regarding paying for dental treatment.
- Dentinal hypersensitivity due to exposed root surfaces, and patient reported short, sharp pain to cold at sites of 2mm premolar recession.

## **Human Needs Model** (Darby and Walsh)

| Unmet Human Need | Etiology (due to) | Signs & Symptoms (as evidenced by) | Patient Goals & Expected Outcomes | Interventions | Dental Hygiene Diagnosis |
|---|---|---|---|---|---|
| **Protection from health risks** | • Tobacco use (smoking)<br>• Lack of financial and housing stability | • Smokes 1 pack/day<br>• Unemployed/loss of job<br>• Living in car | • Reduce smoking to <10 cigarettes/day by target date<br>• Utilize resources for job/housing search<br>• Report positive change in employment/housing status | • Educate on health/oral health risks of smoking<br>• Tobacco cessation using motivational interviewing<br>• Provide resources/referrals for homelessness and unemployment assistance | *Unmet human need for protection from health risks due to tobacco use, lack of financial and housing stability, as evidenced by smoking (1 pack/day), unemployed status, and unhoused status (living in car).* |
| **Freedom from fear and stress** | • Fear of dentistry<br>• Risk to personal safety<br>• Anxiety about payment | • Past dental experiences; comment "it always hurts"<br>• Loss of job/living in car | • Report improved comfort in dental environment by end of appointment<br>• Complete application for financial assistance program by next appointment | • Implement stress reduction protocol<br>• Provide resources/referrals for financial support programs | *Unmet human need for freedom from fear and stress due to fear of dentistry, risk to personal safety, and anxiety about payment, as evidenced by past dental experiences, comment "it always hurts," loss of job/living in car.* |
| **Freedom from pain** | Patient reported tooth sensitivity to cold | Short, sharp pain to cold stimulus at sites of 2mm recession on premolars during oral exam | • Discuss potential causes and treatments by end of appointment<br>• Report using recommended products by next visit<br>• Report satisfaction with improvement/elimination of sensitivity | • Educate on sensitivity due to dentinal exposure<br>• Educate on causes of recession<br>• Recommend OTC products for sensitivity<br>• Provide product samples | *Unmet human need for freedom from pain due to patient reported tooth sensitivity to cold, as evidenced by short, sharp pain to cold stimulus at sites of 2mm recession on premolars during oral exam.* |
| **Biologically sound and functional dentition** | Dentinal hypersensitivity | No radiographic or clinical evidence of caries; short, sharp pain to cold stimulus at sites of 2mm recession on premolars | • Explain oral self-care recommendations by end of appointment<br>• Demonstrate recommended brushing technique<br>• Demonstrate recommended interdental cleaning techniques | • Discuss benefits of 1.1% NaF toothpaste; provide samples<br>• Dietary guidance for dental healthy choices<br>• Educate on brushing/interdental cleaning techniques<br>• Provide soft bristle toothbrush and interdental devices<br>• Prophylaxis; sodium fluoride varnish<br>• Refer to dentist for evaluation | *Unmet human need for biologically sound and functional dentition due to dentinal hypersensitivity, as evidenced by no radiographic or clinical evidence of caries, short, sharp pain to cold stimulus at sites of 2mm recession on premolars.* |

### Diagnostic Statements for Human Needs Model (Darby & Walsh)

- Unmet human need for protection from health risks due to tobacco use and lack of financial and housing stability as evidenced by smoking a pack of cigarettes a day, unemployed/loss job and living in her car.
- Unmet human need for freedom from fear and stress due to fear of dentistry and risk of personal safety, anxious about payment for cost of dental services, as evidenced by, past dental experiences and comment "it always hurts", loss of job/living in her car.
- Unmet Human Need for freedom from pain due to patient reported tooth sensitivity to cold as evidenced by patient exhibiting short, sharp pain when exposed to cold stimulus at sites of 2mm recession on premolars during oral examination.
- Unmet Human Need for biologically sound and functional dentition due to dentinal hyper-sensitivity as evidenced by no radiographic or clinical evidence of caries, the patient exhibited short, sharp pain to cold stimulus at sites of 2mm recession on premolars during oral examination.

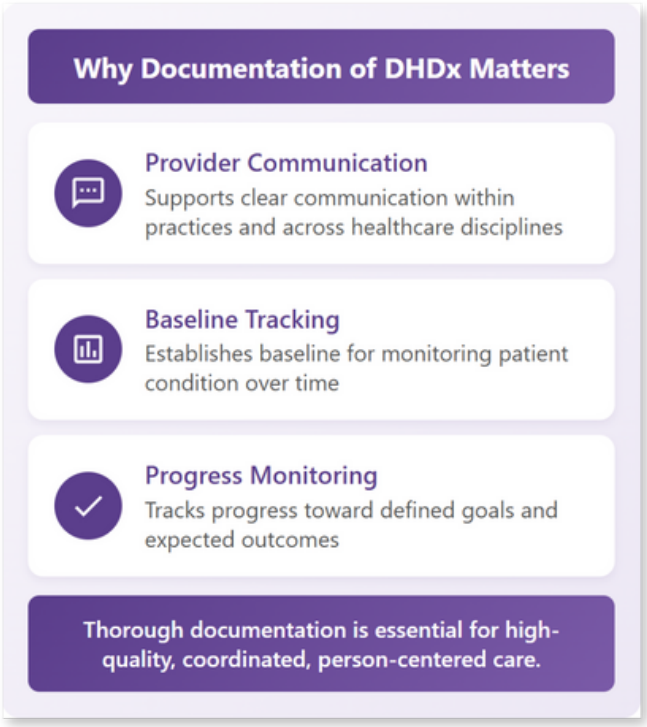
# Documentation of DHDx

## Importance of Documenting DHDx in the Patient Health Record

According to the ADHA Standards for Clinical Dental Hygiene Practice (2025), ethical responsibility to patients includes maintaining accurate and thorough documentation within the healthcare record.[2] Such documentation must encompass all collected assessment data as well as dental hygiene diagnostic statements that reflect the patient's identified needs.

Comprehensive documentation fulfills several critical functions: it supports clear and effective communication among providers within a practice and across healthcare disciplines, establishes a baseline for monitoring the patient's condition over time, and tracks progress toward defined goals and expected outcomes. As assessment findings evolve between appointments, the corresponding dental hygiene diagnoses must be updated to accurately represent the patient's current status.

To promote clarity and consistency, terminology should be precise and universally recognized, ensuring that any provider can readily interpret the patient's health record. Thorough documentation of assessment findings, diagnostic statements, and interventions is therefore essential for the delivery of high-quality, coordinated, person-centered care.



## Recommendations

To advance the consistent and meaningful use of dental hygiene diagnosis, the following recommendations address clinical practice, education, regulation, and accreditation standards.

1. Dental hygienists embrace and utilize DHDx terminology and full scope of DHDx as an essential component of the process of care in ethical dental hygiene practice.
2. State dental practice acts incorporate standardized and specific terminology for DHDx.
3. Dental hygiene educators intentionally design and integrate curriculum incorporating all categories for DHDx that lead to diagnostic statements which guide the comprehensive care plan.[2]
    - Systemic health factors
    - Behavioral health factors
    - Social determinants of health factors[35]
    - Periodontal disease classification
    - Hard and soft tissue conditions
    - Individual needs, values, and preferences
4. The CODA Dental Hygiene Review Committee reinstate DHDx into the CODA accreditation standard 2-13, utilizing 'dental hygiene diagnosis' as the definition for analysis of findings and use of critical thinking.

## Conclusions

Dental hygiene diagnosis is a structured, evidence-based process used to identify diseases or conditions by interpreting clinical signs, symptoms, and contributing factors. As a fundamental component of clinical practice, it requires dental hygienists to analyze assessment data and make informed decisions that direct patient care. The scope of DHDx has expanded beyond objective clinical findings to encompass systemic, social, and behavioral risk factors.

Contemporary models of DHDx should be adopted to promote consistent application in both educational and clinical environments. These models connect assessment to treatment planning, implementation, and evaluation, supporting risk-based, person-centered care. Furthermore, it is critical to standardize DHDx terminology within the profession and across state dental practice acts to ensure clarity, consistency, and alignment in practice.

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## American Dental Hygienists' Association

The American Dental Hygienists' Association (ADHA) is the only organization representing the professional interests of the more than 220,000 dental hygienists in the United States. Dental hygienists are preventive oral health professionals, licensed in dental hygiene, who provide educational, clinical and therapeutic services that support whole-body health through the promotion of optimal oral health. To learn more about the ADHA, dental hygiene or the link between oral health and general health, visit adha.org.

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