

# EVERYTHING YOU NEED TO KNOW ABOUT GENETIC ORAL TESTING IN DENTAL PRACTICE



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Melissa K. Turner, is a fresh force of change and is on a powerful mission to transform the future of dentistry for both patients and practitioners. An award-winning speaker, key opinion influencer, and hygienist, Melissa represents a new generation in dentistry through a focus on inclusion, practitioner well-being, and innovative technology. She is a 2022 recipient of the Sunstar Award of Distinction, the dental hygiene industry's highest honor, and is a top dental content creator nationwide. She leads the Cellerant Best of Class Hygiene Awards as their Chief Hygiene Officer and Director of Social Strategy. Learn more and contact her at [www.melissakturner.com](http://www.melissakturner.com)

With the advancement of technology and AI, oral testing is now a popular tool for dental hygienists...but how can you differentiate between the many products on the marketplace? Do all oral tests look at human genetics? Should you prioritize in-office testing over send-away test kits? What's the difference between salivary diagnostics, genomic sequencing, screening and predictive tests? And how can these tests impact patient education and improve oral health? In this article, I'll walk through a brief overview of the various types of oral testing products on the market – from salivary testing and diagnostics, to DNA sequencing, inflammatory biomarkers, and cancer screenings – and specifically help you understand how oral genetic testing with human cells will help your patients take ownership of what happens in their mouth and body.

Over the last two years, I've spent countless hours researching oral testing methods and have also tested many of the oral and salivary tests available to us as hygienists. Throughout this journey, I've realized there are several misnomers and myths

that we face on a regular basis which I'd like to address here so we can together create a strong foundation:

**Salivary testing versus oral testing:** For many years, I lumped all oral tests together under the term “salivary test.” It was only after diving into my research that I realized “oral test” is the more accurate term. Why? Because not only can we test saliva, but we can also test dental biofilm, microbial DNA and byproducts, skin cells, breath, and in the future, perhaps even snot!

**Most oral tests do not provide an official diagnosis:** The reality is most types of oral tests in the market in dentistry today only provide information that allows us to screen our patients for the potential of certain conditions or predict that our patients may be at risk for certain conditions. In order for an oral test to be able to diagnose a disease, the test would have to go through rigorous and costly government approval processes and typically needs to be sent to a lab.

**Most oral tests do not test human DNA:** Don't let the names fool you! Even if a test includes “DNA” in the



brand name it does not mean it is testing human DNA. Most oral tests on the market that claim to analyze or report on DNA are testing microbial DNA. While this is still very helpful information, as licensed professionals it is our duty to ensure we fully understand the capability of the test.

Recently I had the privilege of trying out the new OralRisk Genetic Test, which is the first of its kind. OralRisk analyzes human DNA to identify a predisposition to both dental caries and periodontal disease. The interesting thing to note is this is a once-in-a-lifetime test – the results are the same whether you take it as an infant or as an adult. What I find interesting is that OralRisk identifies 25 markers associated with dental caries and 35 markers linked to periodontal disease.

How do we best incorporate this into our clinical practice? In an ideal world, I would utilize this type of human genetic test at every new patient appointment and include the fee in the new patient appointment fee. After assessments and radiographs, I would then proceed to explain the process to the patient and begin swabbing the gums. Because

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this test is looking at human DNA, it does need to be sent to a lab to provide ample time to process the cells.

One of the most important aspects of oral testing is for the dental hygienist to understand the results of the test. Once the results come back, a follow-up appointment with the patient should be scheduled to review the results, provide clarification, and suggest action items. Keep in mind this follow-up appointment does not have to be completed in the office; instead, it can be completed via virtual appointment or even telephone.

Oral testing is a great tool to provide valuable insights into a patient's health and uncover disease and disease progression. Whether you utilize oral tests to screen, predict or diagnose disease, the information gathered empowers dental professionals to develop personalized protocols and empowers the patient to take ownership of their health, one tooth at a time! 🦷