

## Dental Diagnostic Testing

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Research in areas related to oral health is a constant, ongoing process. Dentists are always looking for new and better ways to treat the dental health problems of their patients, and this research often provides them this opportunity. One of the newest developments is the use of diagnostic tests to determine a patient's risk level or the most appropriate course of treatment.

Dental decay is the most common disease worldwide. Tests are now available that allow dentists to determine the risk level of any given individual. One test uses saliva collected from the patient's mouth to culture, or grow, the destructive bacteria for a twenty four hour period. The bacterial colonies are then counted, giving an idea of the patient's risk due to the level of these bacteria in the mouth. Another test uses a cotton swab to collect a sample from the patient's teeth. This is then analyzed for the level of Adenosine Tri-Phosphate (ATP), a chemical compound related to energy usage by the bacteria. This gives a measure of the activity level of the bacteria, with higher levels being associated with an increased risk for dental decay.

A second area where testing is now available is for gum disease, which affects the majority of adults and in it's more advanced stages is associated with an increased risk for cardiovascular disease, heart attacks, strokes, and makes controlling blood sugar harder for people with diabetes. One of the available tests again uses saliva collected from the person's mouth. It is sent to the laboratory for analysis which then gives the dentist a report on the specific type of bacteria present and their levels. This allows for the treatment to be specifically directed at the bacteria causing the infection for the most effective results. Another test available for gum disease is one that checks for a genetic predisposition to be more easily affected by gum disease. This allows a way to screen patient's to know who requires early intervention and the most aggressive treatment in order to prevent damage to the gum and bone tissue which leads to tooth loss.

Ongoing developments in oral health care are making dental care more patient specific and effective then ever. If you would like more information on this topic please call my office at 724-537-5505 or visit [www.ada.org](http://www.ada.org) or [www.agd.org](http://www.agd.org). Thank you for taking the time to read this article and have a great day.