



Saliva Test May Help Diagnose Gum and Heart Disease

A self contained saliva test kit developed by a University of Michigan School of Dentistry professor in collaboration with government agencies and the private sector is now undergoing limited preliminary testing at two U.M. sites.

“For years, oral health care professionals have talked about a close connection between a person’s saliva and his or her bloodstream,” said William Giannobile, a professor of dentistry and associate professor of biomedical engineering who developed the test kit. “There are a significant number of potential applications for this device because of its ease of use and its portability.”

The device is a hand-held, battery-powered rapid test kit that is being used to test saliva samples from several dozen patients to determine if they have periodontal disease or cardiovascular disease biomarkers. Once the device makes the market, the kit will allow dentists to test patients in their offices and learn, in 15 minutes or less, if their patients have those diseases. The link between periodontal (gum) disease and heart disease has already been established, but this test could be helpful as a screening when extensive periodontal screening is not possible.

Saliva is becoming a popular test substance for physicians, dentists, and drug testers. Saliva may contain many of the same proteins and other molecules that blood and urine do. Some of these molecules can reveal the presence of diseases such as cancer. Others can be used to predict the number of cavities in a person’s teeth and perhaps even where in the mouth the cavities will develop, according to new research.

Saliva is relatively easy to collect and doesn’t require needles. Saliva testing for drugs of abuse is also a growing trend in the workplace. The United States Department of Health and Human Services is currently developing guidelines for adopting oral fluid testing.

The collection and testing of Saliva is a terrific innovation in health testing. Blood is not so easily accessible, and these new tests have great implications in the improvement of oral and overall health for the American public.