



The Canary System is Proven to Detect Caries Under Opaque Sealants

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The Journal of Investigative and Clinical Dentistry has published a study entitled "Comparison of The Canary System and DIAGNOdent for the in vitro detection of caries under opaque dental sealants." This paper concluded that The Canary System can aid in the detection and monitoring of the status of tooth structure and caries beneath sealants.

"Dental sealants are an excellent preventive tool for treating pits and fissures in posterior teeth," said Dr. Stephen Abrams, President of Quantum Dental Technologies. "Recent publications from the American Dental Association, American Academy of Pediatric Dentistry and the CDC all conclude that sealants should be an essential part of oral health care delivery. Unfortunately, over time, the bond with the fissure will degrade, allowing the ingress of oral fluids and bacteria, creating the ideal environment for caries to develop. Without The Canary System, these lesions are not detected until they have destroyed a large amount of tooth structure."



The energy conversion technology, PTR-LUM, that powers The Canary System enabled investigators to find caries beneath 2mm. of Helioseal® F, Embrace WetBond, Delton®, UltraSeal XT® plus sealants on 105 potential sound and carious pit/fissure sites on occlusal surfaces of 40 extracted human molars and premolars. Marked pits/fissures were scanned with The Canary System and DIAGNOdent before and after sealant placement. Using polarized light microscopy as the validation tool, the status (carious/non-carious) of each examined pit/fissure was confirmed. The accuracy of The Canary System was not affected by any sealant; DIAGNOdent produced a high number of false positive readings.

"Many dental sealants contain opacifying agents that exhibit intrinsic autofluorescence properties, resulting in false positives when scanned with DIAGNOdent, which uses fluorescence technology. The Canary System uses PTR-LUM technology which can 'see-through' opaque sealants, giving clinicians a quantifiable measurement of the status of the enamel crystal structure," said Dr. Koneswaran Sivagurunathan.

The Canary System, with its unique crystal structure diagnostics, can, quantify, image, monitor and record changes in the structure of enamel, dentin and cementum. It can detect caries beneath opaque sealants, around the margins of restorations, and beneath interproximal, occlusal and smooth surfaces. The Canary Cloud enables dentists to view and manage this data and track Canary usage in the office.

Visit www.thecanarysystem.com or email sales@thecanarysystem.com to request additional information.