Quantum Dental Technologies Introduces Revolutionary Caries Detection Device to the US Dental Marketplace

Caries detection system finds carious lesions before conventional methods, allowing dental professionals to detect and monitor caries across the entire spectrum of the disease process.

Toronto, Ontario (February 18, 2013) – Quantum Dental Technologies (QDT), a Canadian diagnostic device company, introduces The Canary System to US dentists and hygienists at the 2013 Chicago Dental Society Midwinter Meeting. The Canary System offers breakthrough technology for evidence-based detection and monitoring of dental caries without the need for dental x-rays.

The system uses “Energy Conversion Technology,” a combination of Photothermal Radiometry and Luminescence Technology (PTR-LUM), to identify and measure tooth decay. This technology is directly linked to the status of the tooth’s crystal structure and not bacterial porphyrins.

The system’s handheld laser emits a low-power, pulsating light to collect unique signatures of luminescence and heat released from the tooth. This laser light interacts differently with healthy enamel than with decayed enamel, providing the dentist with a tool to identify carious lesions as deep as 5mm below the tooth surface and as small as 50 microns in size.

According to Dr. Stephen Abrams, President and Co-Founder of QDT, “The Canary System is the only caries detection device linked to the crystal structure of the tooth instead of the presence of bacteria, and is the only device that can detect decay on all tooth surfaces, including interproximal areas and around the margins of restorations or fillings. The Canary System detects and monitors caries across the entire spectrum of the disease process so it becomes an integral part of the preventive and restorative aspects of oral health care.”

The Canary System is noninvasive and helps preserve the integrity of the tooth and the entire dentition. It can detect caries in a number of clinical situations, including smooth enamel surfaces, root surfaces, occlusal surfaces, interproximal regions, around existing amalgam or composite fillings, and beneath dental sealants.

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“We need to shift from a surgical approach to disease management and prevention. If decay is identified, dentists can also place a restoration earlier than otherwise would have been found using conventional approaches, thus preventing more serious complications,” says Abrams.

The system’s interactive software provides patient reports that clearly define which teeth need special attention, which are healthy, and which have caries. The reports also provide dentist recommendations and instructions for treatment so patients can better manage their oral health. The reports can be printed or accessed from The Canary Cloud so patients can monitor their treatment progress on an ongoing basis. The Canary System is designed to engage patients in their oral health care. Abrams further explains, “Utilizing this device offers patients a wellness approach to dentistry and provides earlier access to preventative care.”

The Canary System is the product of over 12 years of research and development which includes 55+ peer-reviewed journal articles, 6 patent families, and supported with two clinical trials performed under FDA CFR 21 guidelines. The system has been available for sale in Canada and Europe since 2011.

About Quantum Dental Technologies

Quantum Dental Technologies (QDT) is a Canadian diagnostic device company focused on the field of oral health care. The company was founded in 2006 by Dr. Stephen Abrams and Dr. Andreas Mandelis who designed and developed The Canary System. The Canary System is a patented technology to provide dental professionals with an innovative approach to aid in the diagnosis, prevention and management of dental caries. For more information, please visit www.thecanarysystem.com.

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