

# Filtering the Light

Taking DentLight's DOE Oral Cancer Screening System for a test drive.

by DR. JOHN FLUCKE

## ABOUT THE AUTHOR

John Flucke, DDS, is Technology Editor for Dental Products Report and dentistry's "Technology Evangelist." He practices in Lee's Summit, Mo., and has followed his passions for both dentistry and technology to become a respected speaker and clinical tester of the latest in dental technology, with a focus on things that provide better care and better experiences for patients. He blogs about technology and life at [blog.denticle.com](http://blog.denticle.com).



As dentists and hygienists, we're blessed to be in such a wonderful profession. Dentistry has an amazing track record of innovation that has improved the lives of our patients in amazing ways. The best part is we continue to innovate and find ways to make our treatment easier, more predictable, and longer lasting. Those are great benefits to our patients.

In the last few years, we've also seen a tremendous amount of innovation in technology that not only can make our routine exams more thorough, but has the potential to save lives and improve the quality of life of our patients as well. This technology is in the arena of oral cancer screening.

For years, we've done oral cancer screening with an operatory light and our highly trained eyes. While that is a good start, many of us graduated from that exam to using magnification via surgical telescopes and some type of auxiliary lighting system mounted on those surgical telescopes. This allowed viewing the tissues magnified and better lit, which helped to better identify areas of concern.



**Enhanced vision** DentLight's DOE system lets clinicians see more through high-contrast magnified fluorescence filters attached to loupes. The filters can be flipped up and down to assist with identifying abnormalities during an exam.



## DentLight's DOE Oral Cancer Screening System

A rechargeable, battery-powered, cordless dental oral health examination system, DOE™ is designed for visualization of mucosal abnormalities and oral lesions including oral cancer based on magnified fluorescence imaging technology.

in San Francisco this past September and hard launched at the recently held Greater New York Dental Meeting.

## Testing it out

The device consists of a high-powered LED light on a cordless wand. There are 2 LED "heads" that come with the system, one that emits white light and one that emits violet. The heads can be quickly and easily swapped from the body of the device. The white light can be used to aid in a routine visual exam, and then the violet light is used to look for more underlying areas.

It also comes with loupes that have flip-up filters. The filters are placed over the telescopes when the violet light is used. They are a high-contrast filter that greatly increases the doctor's ability to see subtleties in the tissues being examined. When not needed, the filters can be flipped up similar to curing filters on LED headlamps and the loupes can be used for other purposes. The optics are the "flip-up" type and can easily be switched between users if need be, so sharing them is not a problem.

To perform the exam, the doctor puts on the loupes and performs the exam

## New lights

However, the oral cancer exam really began to change with the influx of companies such as Zila with ViziLight, LED Dental with VELscope, AdDent with the MicroLux DL, and Trimara with Identafi 3000 Ultra. All of these companies advocate using special wavelengths of light that help the practitioner more readily locate and visualize areas that may be of concern.

Obviously, anything that helps the doctor and hygienist be more accurate in their detection of oral cancer is a huge benefit to the patient. These devices provide light that penetrates the tissue and shows areas of concern as noticeably darker than the surrounding tissues.

Now a new company has entered the market. DentLight out of Richardson, Texas is probably best known for its small and powerful curing light, the Fusion. However, the company also sells surgical telescopes (DentLight Loupes) and several different models of LED headlamps.

At the Chicago Midwinter meeting in 2010, the company approached me and showed me a prototype device that combined several of its products into one impressive oral cancer exam product.

The product was soft launched at the California Dental Association meeting



**Oral cancer screening options** There are numerous systems and technologies available to help clinicians provide enhanced oral cancer screening exams including, (clockwise from left) Trimara's Identafi 3000 Ultra, AdDent's MicroLux DL, LED Dental's VELscope and Zila Pharmaceutical's ViziLite with T-Blue.

using no filters and the white LED head. Once this initial exam is completed, the violet LED head is attached, and the doctor flips down the high-contrast filters on the glasses. The exam is then repeated with the violet light.

The white light also can be used for other functions such as transillumination. One other nice feature of the system is that owners can buy a curing head for the device and convert it into the DentLight Fusion curing light.

The kit comes with everything you need and is currently priced at less than \$2,000.

We've put the device through its paces in my office for about 6 months now and have been very pleased with its performance and with the increased visibility it

provides. While wearing the magnification and using the filters, tissue exposed to the violet light appears as a greenish color while potential areas of concern show up dark. The contrast is extremely good, which makes the exam process easier to perform. To be thorough, I am still doing an exam using my Orascope 4.8 telescopes and LED light first and then repeating the exam with the violet light and filters. I feel that process is less likely to miss anything.

Patient acceptance has been outstanding. I've always done oral cancer screenings and have always made a point to tell my patients about it and why I'm doing it. Now they know that I'm just doing more to try and ensure their health. ●