



MICHAEL MANCUSO/THE TIMES

Dr. David I. Schor uses a VELscope to check for early signs of oral cancer on NJ DeVico in his Lawrenceville office. Healthy tissue lights up under the blue light of the new equipment. Oral cancer hits about 37,000 Americans each year, half of whom don't survive more than five years.

Put early detection where your mouth is

BY NJ DeVICO
SPECIAL TO THE TIMES

David I. Schor considers himself the doctor of technology. He has every piece of equipment dentistry has to offer in his Lawrenceville office at Imagine Advanced Dental Arts. So he was not surprised when he received an e-mail from Leon Rapport, a manufacturer's representative for Voorhees-based Mid-Atlantic Dental Sales, asking him if he'd like to be one of three dentists in New Jersey to test the VELscope, a diagnostic tool that can help detect oral cancer.

Every year 37,000 Americans are diagnosed with the disease; half of them die within five years. And while that statistic has not changed in 50 years, the age of the typical patient has. Most oral cancer patients used to be older than 40; now 25 percent of newly diagnosed cases are younger, with no known risk factors.

"The problem is most dentists do a very cursory oral cancer exam," says Schor. "According to recent polls, 15 percent of patients said their dentist checks for oral cancer."

Schor says more may be checking without their patients being aware of it, but, "Are they palpating the lymph nodes in the neck? Are they examining the intraoral soft tissue?"

"A proper oral cancer exam looks for changes in structure. When basement membranes—the cells of the tongue, cheek and lips beneath the epithelial layers—become dysplastic, or break down, you can't see it. By the time these changes are visible on the surface, considerable damage may have occurred.

"If there's a sore on the tongue with a broken tooth adjacent to it, or the patient is wearing an ill-fitting denture, we recognize the reason for the lesion. But if there's no clinical cause, it could be oral cancer, which developed from the basement membrane.

"The VELscope takes one minute. It's not a complicated test," says Schor.

The instrument shines a light in the blue range, 430 nanometers, onto the oral soft tissue. Healthy cells fluoresce as they are excited by the absorbed light energy and emit a different wave length. A series of filters for blue and visible light in the VELscope allow the practitioner to see the natural fluorescence of the cells — an obvious green glow.

Dysplasia causes a chemical change in the cellular structure that destroys the fluorophors. Instead of fluorescence, there's darkness.

"If you see black, that's a reason for concern," says Schor. "You must then correlate these findings with a clinical exam."

There are three major risk factors for oral cancer. Alcohol and tobacco use are Nos. 1 and 2. "What is really scary," says Schor, "is HPV—human papilloma virus. It's a sexually transmitted disease and more younger people are getting it because of oral sex. Prior to the last few years, 90

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MOUTH

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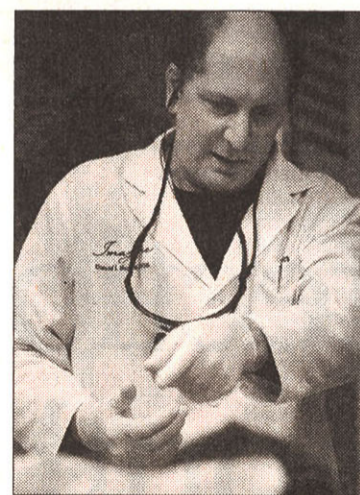
percent of oral cancer patients were older than 50."

Even more frightening is advanced oral cancer. During an externship at New York's Memorial Sloan Kettering Hospital, Schor assisted in head and neck surgeries, including a glossectomy, the total removal of a cancerous tongue.

Because the floor of the mouth is one of the most vascular parts of the body, "commando surgery" may be performed. "Sometimes, with cancer of the gum and mandible, half the jaw must be removed, and all the lymph nodes in the neck are taken as a precaution," Schor says.

To avoid these and other horrors he's witnessed, Schor advises: "Eliminate the risk factors; follow a regular oral hygiene program at home; and have regular professional exams. Get screened with a VELscope every year, or twice a year for people at risk.

"Fifty percent of the U.S. population doesn't see a dentist regularly — only for emergencies. You're not going to catch anything early," he warns.



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Dr. David I. Schor talks to a patient in his Lawrenceville office. He's been testing a new instrument to help detect the early signs of oral cancer.