



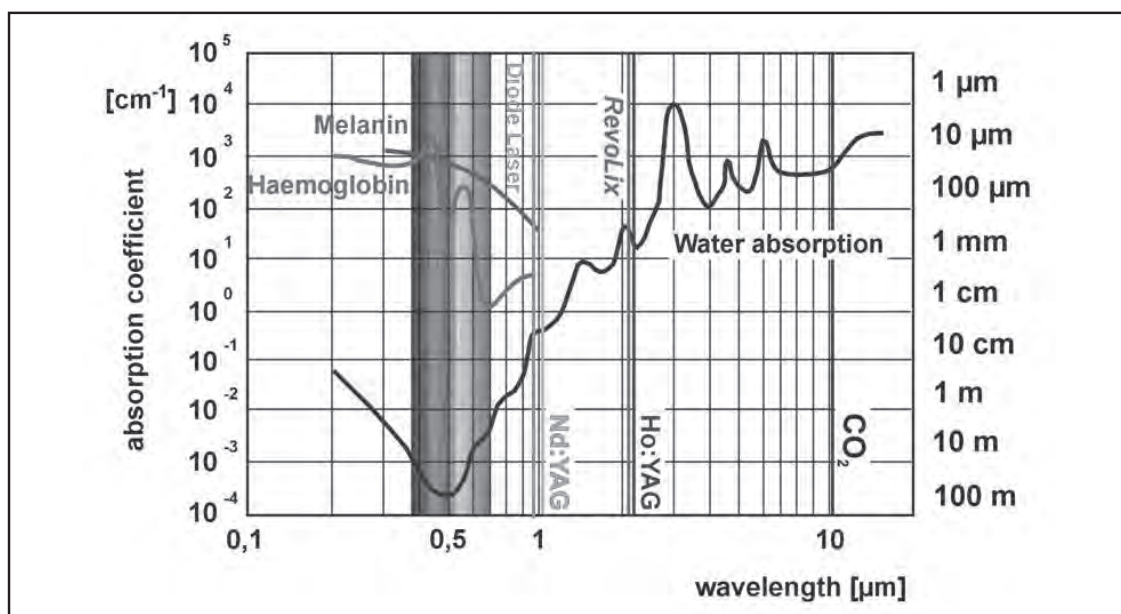
LASER: OPPORTUNITY FOR OTOLARYNGOLOGY

This is a golden age of otolaryngology with many new opportunities, and a shift in procedures from the hospital operating room to the office.” So says Seth H. Dailey MD, Assistant Professor, University of Wisconsin, School of Medicine and Public Health. Dr. Dailey is excited about the opportunities for patients and for the profession. Lasers figure prominently into the armamentarium of new opportunities.

The CO₂ laser has long been a standard for cutting and ablation in ENT procedures. However, it is limited because there is not a cost-effective flexible delivery system. The **2013 nm Revolix Jr.** by **Lisa Laser** provides a truly flexible alternative. In 2006 Steven Zeitels, MD and colleagues (Harvard Dept. of Surgery) had the following to say, “Recently a new laser was designed that functions similarly to a CO₂ laser; however,

its energy can be delivered through a small glass fiber (0.365 to 0.550 mm). It is a diode-pumped solid-state laser that produces a continuous-wave beam with a wavelength of 2013 nm that has a target chromophore of water.” The laser, by Lisa Laser, is used in many different specialties such as urology, GYN, Gastro, General Surgery and is now used in ENT for a variety of procedures, including: papillomatosis, microinvasive carcinoma, benign supraglottic lesions, edema, and granuloma. The fibers are now also available as small as 0.273 mm. In the article the authors also noted “The [Revolix] laser was used effectively in all cases, under both local and general anesthesia.”

Andrew Blitzer, MD, DDS (Professor of Clinical Otolaryngology, Columbia University) says, “Laser is just another way to cut tissue, but what comes with it is



Wavelengths and laser types.

precision. Ablative lasers allow tenths of millimeters of precision. You have a precise way of removing tissue with no bleeding or minimal bleeding. The healing is more rapid. You can do procedures on mucosal surfaces that weren't readily available to us. I think it's just fabulous."

Dr. Blitzer also comments on the importance of wavelength. At a 10.6 micron wavelength, "The CO₂ laser will bounce off glass and can't be put through a fiber. When it is 2 micron you can deliver the energy through a fiber."

The Revolix Jr., with a wavelength of 2 microns (2013 nm), is an easily portable laser that can be used both in office and hospital settings: creating opportunity for cost-savings and the comfort of working with the same device in both locations. The target chromophore of the Revolix Jr. is water—the same as the carbon dioxide laser. However, the Revolix Jr. offers better hemostasis, has an optical fiber system that does not require an articulated mirror arm, and the flexible fibers may be passed trans-nasally, allowing


greater opportunity for office-based procedures.

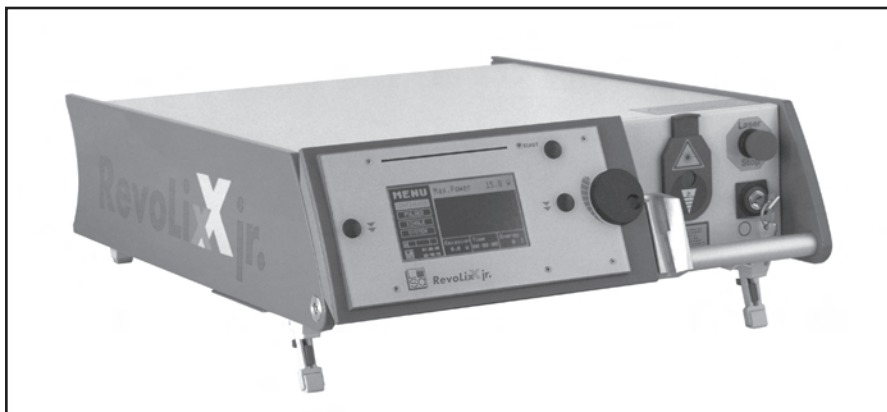
The Revolix Jr. also has advantages over shorter wavelength diode lasers (800 to 1000 nm) by virtue of its shallower depth of penetration, approximately 0.2 mm. Other diode lasers may penetrate much deeper with an absorption length as much as 10 to 20 mm, varying with the availability of hemoglobin. In contrast, the water-specific Revolix Jr. beam, which penetrates tissue only 0.2 mm beyond the tip of the fiber and tissue damage, extends only 0.3 to 0.4 mm beyond the depth of the cut.

The fibers used to deliver laser energy are not all the same. In contrast to some other materials, Dr. Blitzer notes, "The nice thing about glass fibers is that they can be sterilized. The end can be cut off. I can get about 30 uses per fiber." Thus, glass fibers offer utility and very significant cost savings. As noted by Peter Allen of Lisa Laser, "If a surgeon were to do 100 procedures per year this could result in a procedural cost savings of over \$200,000 per year compared to other available laser options."

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The new RevoLix Jr. laser operates in a continuous wave mode. It cuts and vaporizes circulated and white tissue without deep penetration, uncontrolled necrosis, generation of pressure waves or trauma to adjacent tissue and organs. Dr. Dailey finds this laser is particularly applicable to surgery for partial laryngectomies, ablations of mass lesions (such as recurrent laryngeal papillomatosis), and debulking of mass lesions such as tumors or inflammatory lesions. With a full range of reusable fibers from 273 microns to 1000 microns, the RevoLix Jr. is the ideal surgical instrument for both in-office and operating room procedures. All fibers are 3 meters in length and are shipped non-sterile. 



The 2013 nm Revolix Jr. by Lisa Laser is available with fibers as small as 0.273 mm.

To Learn More

In today's complex arena of laser surgery, the Revolix Jr. by **Lisa Laser** stands out for its effectiveness, flexibility, hemostasis, safety, and cost-efficiency. To learn more, contact Lisa Laser at 1-925-468-0433, or send email to pallen@lislaserusa.com.