Solea: The first CO₂ laser system FDA cleared for hard- and soft-tissue ablation

Additional features help make transition from drill to laser an intuitive process

By Convergent Dental Staff

- The first CO₂ laser system cleared by the FDA to cut hard and soft tissue, Solea® has a unique wavelength at 9.3 microns that allows dentists to safely and effectively perform caries removal and cavity preparations, reducing the need for the drill.

Solea performs differently from any other laser in several significant ways.

Solea vaporizes enamel by emitting a wavelength that matches the peak absorption of laser energy into hydroxyapatite, resulting in smoother margins versus erbium lasers, which vaporize water within the tooth and essentially chip enamel away.

The first computer-aided preparation (CAP) system in dentistry, Solea integrates computer controls engineered for speed, precision and, most importantly, ease of use.

A key component of Solea’s technology is the use of galvos, computer-controlled motors that move mirrors inside the handpiece, manipulating the beam up to 10,000 times per second in precise patterns based on the selected tissue and spot size.

Three additional key features—a easy-to-use touchscreen, the first and only variable speed foot pedal and a familiar handpiece—were designed to make the transition from a drill to a laser an intuitive process.

Dentists can choose between different spot sizes ranging from 0.25 mm to 1 mm and can select the desired tissue type (enamel, dentin or soft tissue) by simply pressing the touchscreen.

Dentists can also control the speed with which they cut by adjusting the amount of pressure that they apply to the variable speed footpedal, which adjusts Solea’s pulse repetition rate from 20 to 10,000 Hz.

Applying the latest advances in digital dental technology, Solea offers dentists a future of practicing dentistry without the drill.

Visit booth No. 239 here at the Hinman Dental Meeting to cut both hard- and soft-tissue samples with Solea. For more information, visit www.convergentdental.com.