There is no such thing as a universal laser that covers all indications equally well in the field of laser dentistry. Instead, the sector offers a wide range of different units for specific areas of application. Differentiating features include the respective characteristic wavelength, the medium and the form of signal produced by the laser. As far as wavelength is concerned, the spectrum of light emissions extends from the ultraviolet over the visible region all the way into the far infrared. When it comes to the search for the right laser, interested dentists will find the concentrated expertise of the innovative dental industry and the associated trading companies presented at IDS 2013 in Cologne.

The CO₂ laser, a gas laser, opens up completely new possibilities in soft-tissue surgery. Its applications include frenectomies, vestibuloplasties and hyperplasia removals, where it is used as a minimally invasive scalpel replacement. Furthermore, it can also be used to smooth scars resulting from an apicectomy. Dentists looking for a laser for hard-tissue applications will turn to an Er:YAG laser. This can be used both for caries removal and enamel conditioning and for oral surgery procedures. Such applications include, for example, incisal ridge defects, lesions due to cleaning and multilayer constructions of dentin adhesives. The erbium laser also represents a worthwhile investment for a practice that is active in the field of paediatric dentistry, as it can be used for minimally invasive therapy of an incipient caries. What’s more, the laser works without physical contact and with minimal discomfort to the patient.

Diode lasers can be used to carry out both gingival surgical procedures and endodontic treatments. Multimorbid patients in particular profit from this form of therapy, which is why this technique provides an additional benefit for a practice, especially in the light of ongoing demographic change. Patients suffering from diabetes are much less frequently affected by wound-healing impairments after laser therapy, and the majority of patients receiving Marcumar can also be treated without the need for the internist to make changes to the blood-thinning medication.

IDS takes place in Cologne every two years and is organized by the Gesellschaft zur Förderung der Dental-Industrie mbH (GFDI), the commercial enterprise of the Association of German Dental Manufacturers (VDDI), and is staged by Koelnmesse GmbH, Cologne. “Trade visitors from practices and laboratories will have a unique opportunity during the International Dental Show, the world’s largest trade fair for dental medicine and dental technology, in Cologne from 12 to 16 March 2013,” said Dr. Markus Heibach, Executive Director of the VDDI.