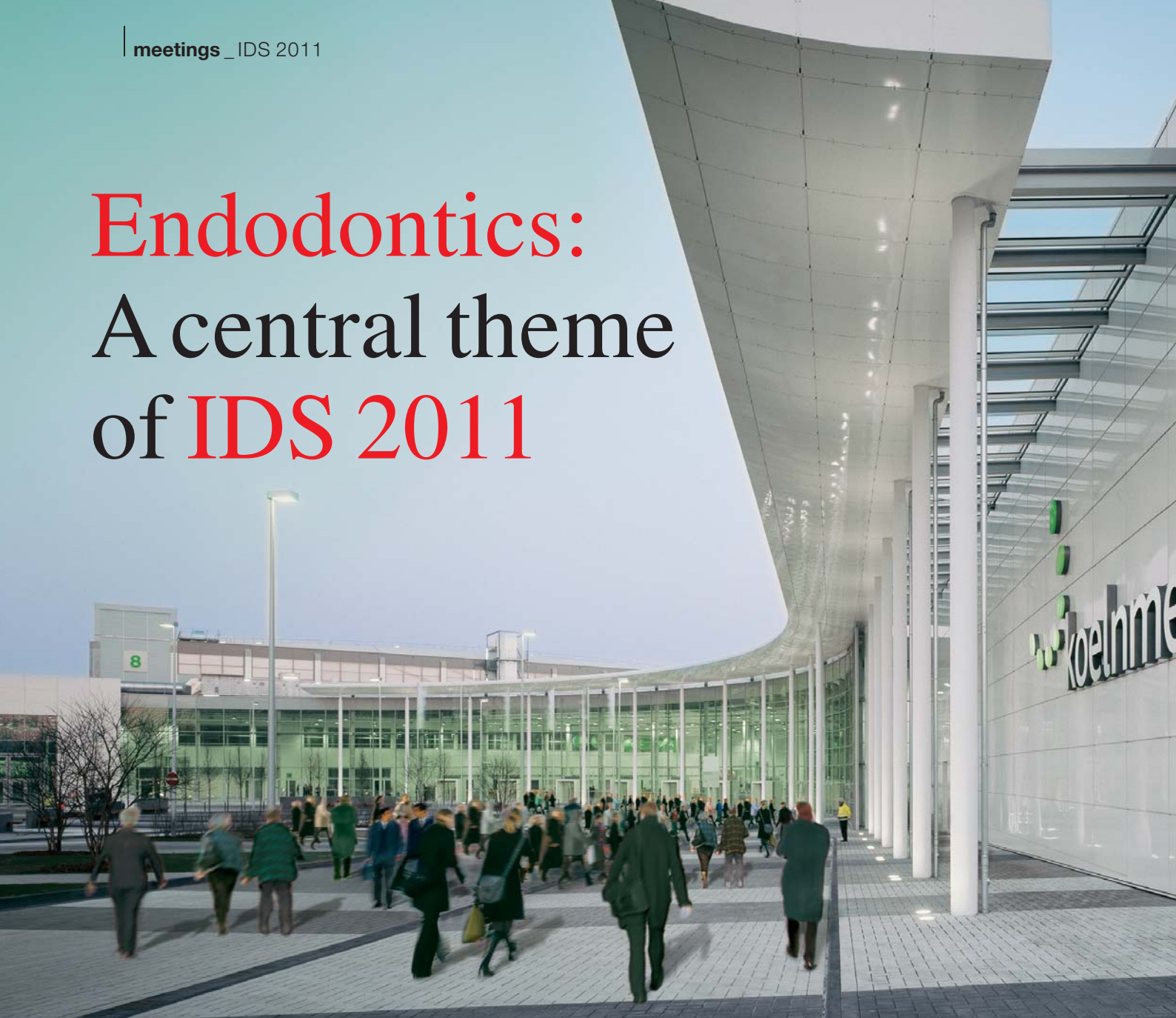


Endodontics: A central theme of IDS 2011



Endodontics provides an important foundation for long-term and lasting tooth preservation. In light of an ageing society, this dental discipline is increasingly gaining importance. With evidence-based success rates of up to 85 per cent for treatments performed *lege artis*, endodontics has long been established in the range of therapies offered by general dentists, while at the same time offering a variety of tasks for specialists. According to Dr Martin Rickert, Chairperson of the Board of the Association of German Dental Manufacturers (VDDI), "The impressive scientific and technological progress in the field of endodontics has improved the odds of long-term tooth retention tremendously and puts this speciality at the centre of a prophylactic-conservationist approach to dentistry." The latest methods employed in conservation therapy include manual and automatic root-canal preparation, efficient rinsing methods during disinfection, and modern instruments and materials for obturation. Today, even the treatment of

anterior teeth with fractured crowns and roots is possible through the use of advanced *fiber post* systems, amongst other techniques. Additionally, if root-canal revision should become necessary, endodontic specialists have a range of minimally invasive microsurgical treatment options available to them, including the treatment of complex endo-periodontal lesions.

The many years of intense collaboration between a large number of specialists and companies in the dental industry have resulted in the well-engineered instruments and material systems available today that increase accuracy of diagnosis and, above all, improve treatment of root-canal lesions. Modern imaging techniques, for example, allow the precise visualisation of the root canal and thus enable both endometry up to the apex and the exact determination of the file position during preparation. Digital X-rays and digital volumetric tomography are also becoming increasingly important. Moreover, high-



determined by means of either X-rays or modern electromagnetic measuring units that cause no additional exposure to radiation. Effective chemicals that can be enhanced via ultrasound-supported or hydrodynamic methods are used to irrigate root canals, which frequently determines the failure or success of the procedure. Modern sealer adhesives and cements based on composites are available for bacteria-tight obturation. Classic methods, primarily gutta-percha techniques, can also be used. There has been significant progress in this regard as well. For example, new equipment systems for warm vertical condensation ensure better adaptation of the thermally plasticised gutta-percha to the canal walls. The 34th International Dental Show (IDS) will be a particularly valuable source of comprehensive information for anyone wishing to learn about the entire spectrum of new developments in endodontics.

Aside from routine tasks that can be performed by general dentists, endodontics also offers a challenging field of work for specialists, which includes complex revisions, root-end resections, and the restoration of teeth with fractured crowns and roots. In order to complete these treatments successfully, experts have a wide variety of tools available to them, such as loupe systems or surgical microscopes that permit minimally invasive microsurgical endodontic surgery.

At the next IDS, which will be held from 22 to 26 March 2011, the solutions offered by endodontic specialists and renowned companies in the dental industry will demonstrate the integration of standard endodontic services and specialisation opportunities into the day-to-day routine of a dental surgery. Interested trade visitors can take advantage of this expertise and experience during the fair. Visitors will also have the opportunity to ask questions and discuss problems with the experts at a unique international forum. IDS is the ideal opportunity for dentists and dental technicians to gain the latest information on endodontics, as well as learn to implement it in their dental surgery and to integrate complex treatment systems at an expert level. Successful endodontic treatment increases the likelihood of tooth preservation, makes for satisfied patients and ultimately enhances the image of the dentist's surgery.

"From 22 to 26 March 2011, the International Dental Show in Cologne—the world's largest trade fair for dental medicine and dental technology—will be the best place for dentists interested in endodontics and their assistants to talk to specialists from the exhibiting companies and experienced users about the whole spectrum of modern endodontic concepts and current trends in treatments and diagnostics," concludes Dr Markus Heibach, President of the VDDI.

resolution intra-oral cameras are used for the time-saving online documentation of the treatment, as well as for diagnostic purposes.

Another important trend is the increased use of mechanised root-canal preparation. In particular, computer-designed file geometries with optimised conicities and cutting edges result in greater safety and efficiency. Modern materials, such as nickel-titanium or titanium-niobium alloys, have vastly improved the durability of rotating preparation and revision files, thus virtually revolutionising endodontic treatment options. A conical preparation is now also possible in severely curved root canals. High-performance, electronically controlled drive units with torque control largely help to eliminate fracturing when using the mechanised files.

Technological progress has also been made in other areas of endodontics. The working length is

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