

CAD/CAM

international magazine of digital dentistry

4²⁰¹⁵



| opinion

Data security: How not to become the next Ashley Madison

| case report

Immediate loading with dynamic navigation implant surgery

| industry report

Digital Denture: Complete denture prosthetics for the 21st century

A close-up photograph of the DSi 6000 Impression Scanner. The device is a black, handheld unit with a silver-colored scanning head. A dental impression tray, containing a pink wax model of a tooth and a green silicone impression material, is being scanned by the device. The scanner is mounted on a black base.

DSi 6000 Impression Scanner REVOLUTION

5 reasons to join our distribution network

1

Excellent result scanning incisors

Our co-linear technology enables scanning in deep holes and undercuts.

4

Shortens the workflow process

For most cases, the dentist can send the STL file directly to production, after design with CAD software, no need for gypsum model.

2

No need for powder

Conoscopic Holography technology enables scanning of a wide variety of impression materials, without the use of powder or spray.

5

Reducing costs

Save delivery costs and gypsum models for most cases.

3

Bite registration

Triple tray scanning with automatic bite registration.

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Beyond any measure

Dear Reader,

_During the last several years, CAD/CAM technology has undergone enormous development and is still one of the most innovative segments in dentistry. This was plainly evident at the beginning of the year at the International Dental Show in Cologne, where dozens of manufacturers presented new systems, as well as CAD/CAM solutions and software.

There is no doubt that digital technology has changed dental offices and laboratories forever. Digital imaging, digital impressions, guided surgery, CAD/CAM-supported manufacturing processes and high-quality materials increase the precision of implant structures and prosthetic restorations, and facilitate better diagnostics and treatment planning.

Digitalisation of dental offices is not limited to the fabrication of dental restorations: a computerised office also means the collection and storage of data. Patient data is increasingly stored in digital format. The more sophisticated the program used, the greater the amount of patient information collected, and it is imperative that this data be stored securely.

In this issue of the **CAD/CAM** magazine, you will find very well-illustrated and documented articles on guided implant surgery, CAD/CAM-supported restorative dentistry, digital denture manufacture, as well as practice management and data security. Lina Craven explains the key role of a treatment coordinator in the dental practice, and highly experienced information technology professional Naz Haque presents his opinion on data protection and the relevant legislation in the UK. Also informative is the interview with Israeli-based dentist Dr Andy Wolff, who has worked as a medical expert in dental malpractice litigation for many years. He explains, among other matters, why patients tend to go to court more often nowadays, and what medical professionals can do to protect themselves against legal disputes.

I hope you will find this issue illuminating and that the knowledge you gain is applicable in your daily practice.

Yours faithfully,



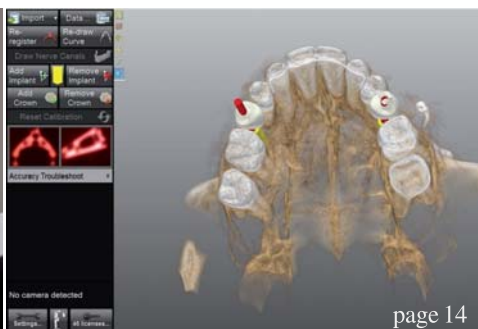
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Managing Editor



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Cover image courtesy of DENTSPLY Implants
(www.dentsplyimplants.com)



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Restoring happiness

Patients rely on you in order to eat, speak, and smile with confidence. It can be said, you are actually restoring quality of life and happiness.

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Comprehensive solutions for all phases of implant dentistry



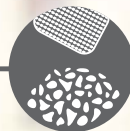
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“Patients tend to go to court more often nowadays”

An interview with Dr Andy Wolff, Israel



Dr Andy Wolff talking to DTI Group
Editor Daniel Zimmermann.
(© Kristin Hübner/DTI)

_Be it a careless error or a case of misjudgement, even the most experienced practitioner can make a mistake. In fact, statistics indicate that it is likely that every general dentist will be involved in a malpractice suit at some point in his or her career. Israeli-based dentist Dr Andy Wolff has worked as a medical expert in dental malpractice litigation for many years and has seen almost everything, ranging from slight negligence to severe overtreatment. Dental Tribune International had the opportunity to speak with him recently about the steady increase in litigation in the field and simple measures that can help prevent many malpractice incidents in the first place.

_Dental Tribune International: *Dr Wolff, you have been a medical expert in dental malpractice litigation for many years now. Why is it so important to increase awareness of this topic?*

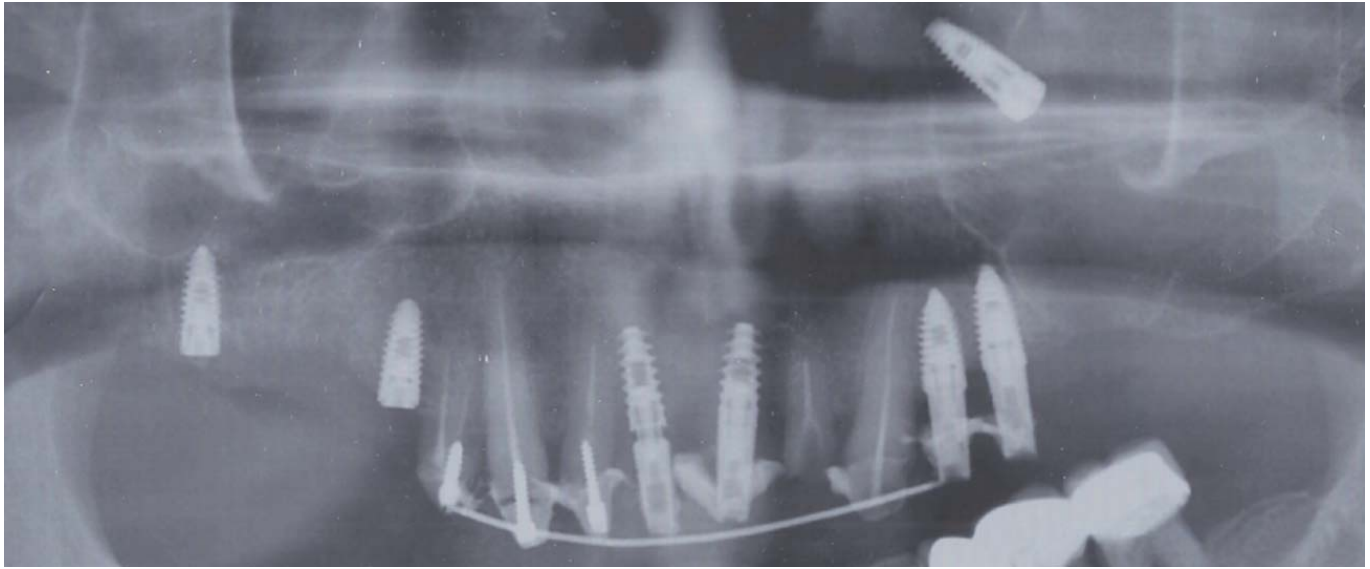
Dr Andy Wolff: So much literature out there tells dentists how to do things—whether it is placing implants or improving efficacy with the newest technology—but there are no books on how not to do things or, more precisely, what can happen when something has gone wrong. This aspect is no less important, both for the patient affected and for the clinician, who might be facing legal consequences.



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Displacement of dental implant into the maxillary sinus of a 70-year-old male patient. (© Dr Andy Wolff)

Many may think that it is not relevant to them, but every smart physician knows that things occasionally go wrong and no one is immune. By documenting dental malpractice incidents and by talking and writing about these, I aim to raise awareness and therefore help prevent future incidents.

—In your experience, what types of malpractice are most common?

There are definitely many cases in the neurological field. As a medical expert, I am confronted with many instances of damaged nerves caused while placing an implant, during tooth extractions or through an injection. It is common and it happens quickly. Typically, it is an inadvertent mistake, because the clinician was either in hurry or impatient. However, the consequences for the patient are mostly very dramatic and often beyond repair.

—Aside from nerve damage, is there an area where mistakes are more likely?

If I had to choose one, I would say it is implants. I recently had a very disconcerting case where an oral surgeon did all the preliminary examination work meticulously, the CT scan, the radiographs, everything. For that reason, he knew for certain that he was working with a bone structure of 11 mm, yet he used an implant that was 13 mm long in the treatment. Maybe he was just mistaken or the assistant handed him the wrong implant and he did not recheck it, but the result was that he hit a nerve.

In this particular case, the dentist was a specialist, an experienced surgeon. Without raising the question of guilt—although the surgeon was without a doubt responsible for the damage—

cases like this show that mistakes really can happen to anybody.

—So expertise does not preclude mistakes, but there are undoubtedly also cases that result from negligence and hubris.

I certainly see many cases in which dentists have carried out a treatment for which they were not qualified. I remember an incident in which a general practitioner injured nerves on both sides of the mouth during an implant treatment. That is truly unbelievable. I have seen many cases over the years, but nothing quite like that.

In another case, a dentist extracted a third molar without the requisite training. He should have referred the patient to a specialist, but he chose to do it himself—possibly because it earned him another US\$200 to 300 (£130 to 190)—with the result that the patient now has to live with chronic pain for the rest of her life.

—Can injured nerves regain normal function eventually?

Mostly, damage is irreversible. There are exceptions, of course, either if the damage was not too severe or if the nerve was inside a canal. Potentially, an injured nerve can regain function over time. However, if it is an exposed nerve, such as the lingual nerve, the damage is generally irreversible, although there are some microsurgery procedures that may improve the situation. Interventions like this, however, carry extremely high risks themselves and might even aggravate the situation.

—With the consequence that patients partially lose sensation in the mouth or face?

A collage of hexagonal images representing various aspects of New York City. The central hexagon features the Statue of Liberty in red. Surrounding it are other hexagons showing the Empire State Building, a smiling woman, a person in a lab coat, and various cityscapes and landmarks.

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