The use of computed tomography (CT) in dentistry dates back more than 30 years. The ability to assess a patient’s individual anatomy in three dimensions proved to be an invaluable diagnostic tool for dental implant and oral surgery procedures. However, it did not catch on right away. There were many barriers for both doctor and patients because these large and expensive imaging devices were located in hospitals or radiology centers, and the cost of obtaining a scan on film was prohibitive. Of course, there were also issues with patient exposure to increased radiation dosage.

Fast forward to about 17 years ago, with the advent of cone beam computed tomography (CBCT). These devices had a smaller footprint, lower cost, and could be placed in a dental office for a single practitioner or group practice. The reduced radiation was a real breakthrough, and this combination became a new catalyst for the use of 3-D imaging in dentistry: improving the diagnostic capabilities for a wide variety of procedures including, but not limited to, dental implants, oral surgery, bone grafting, TMD treatment, endodontic therapy, orthodontics, and airway analysis.

With certain barriers removed, CBCT has become an essential tool that has been utilised to improve accuracy in the diagnostic and treatment planning phase while helping to reduce complications with associated procedures. However, even today in 2017, many practitioners still rely solely on periapical and panoramic radiology, which is why further education continues to be a focus of this and other publications. Fortunately, we have new catalysts for which CBCT is an important foundational step—moving from the diagnostic phase to the desired treatment outcome with important links to CAD/CAM and 3-D printing technologies. As CBCT was the initial catalyst, the ability to export the DICOM data and send it to either an expensive industrial or an in-office low-cost 3-D printer to produce a mandible or maxilla that clinicians can hold in their hand to touch, examine, and plan, has provided the dental industry with a new and exciting catalyst to enhance the acceptance of using these technologies.

We look forward to bringing our readers current techniques, innovative treatment modalities, clinical case presentations, and much more within the pages of our publications, in the hopes that it will have a positive impact on the manner in which we deliver patient care.

Respectfully,

Dr Scott D. Ganz
Editor in Chief