

Euro Dentistry Congress 2019: CBCT- a myriad of privileges from diagnosis to treatment planning in dentistry - Khadiza Begum - Gothe University of Frankfurt

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Cone beam computed tomography (CBCT) is a medical imaging technique of X-ray computed tomography where the X-rays are divergent, forming a cone. CBCT systems have been designed for imaging hard tissues of the maxillofacial region. The increasing availability of this technology provides the dental clinician with an imaging modality capable of providing a three-dimensional representation of the maxillofacial skeleton with minimal distortion.

This article is intended to elaborate and enunciate on the various applications and benefits of CBCT, in the realm of oral and maxillofacial surgery and Prosthodontics, over and beyond its obvious benefits in the rehabilitation of patients with implants. With the onus of meticulous reconstruction of near ideal occlusion resting on the prosthodontist, CBCT provides a unique imaging option, which can be a boon in various aspects of Prosthodontic practice - from imaging of the temporomandibular joint for accurate movement simulation, to

template assisted maxillofacial reconstruction or even over denture therapy and CBCT guided implant surgery.

CBCT could play a crucial role in lessening the burden of a hectic dental routine for the clinician and critically contribute to accurate and effective treatment for the patient. The fact that measurements from the CBCT are routinely accurate throughout the maxilla and mandible makes this an excellent imaging modality for planning implant placement.

Using these features, an implantology can gain confidence in treatment planning for complex surgical procedures such as sinus lift and ridge augmentation, apart from gaining a secure sense during intricate extraction procedures and implant placement - with or without a surgical guide.

The countless advantages of this 3D imaging technique over conventional methods had brought a revolution in almost all the fields of dentistry from early diagnosis to treatment planning.