

## The Dental Application of Cone Beam CT Imaging

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### Image Article

The use of new imaging technologies in dentistry for diagnosis and treatment evaluation is gaining popularity [1]. Cross-sectional 3D computed tomography (CT) offers a more accurate visualization of the craniofacial structures than the 2D method [2,3] and naturally avoids superimposition and issues caused by amplification.

Medical CT (MDCT) was used in dentistry to take pictures right from the start. Concentrations on MDCT demonstrated the accuracy and dependability of 3D CT evaluations of dental procedures [4]. Despite these advantages, MDCT uses a significantly higher effective dose than conventional radiographs that make use of dental and maxillofacial imaging. Because of this, it is unrestricted in its application for routine assessments, particularly those related to growth and cephalometric research. In addition, MDCT is an expensive method, and dental specialists and small clinics do not effectively open scanners for maxillofacial imaging (Figure 1).

Another method for maxillofacial imaging, known as cone beam computed tomography (CBCT), was first described in a paper by Mozzo P, et al. [5]. It was only recently proposed. A CBCT check uses a substitute sort of getting that the practice MDCTs. Because the x-ray source produces a cone-shaped beam, it is possible to capture



Figure 1: Dental cone beam CT imaging.

the image in a single shot rather than individually capturing the cut as in MDCT. This method of imaging has the following advantages significantly less radiation than MDCT, the possibility of individual overlap-free reconstructions, and the import and export of DICOM data for various applications. In addition, this imaging technology enables three-dimensional (3D) imaging and data, providing a picture of the craniofacial and dental designs needed for orthodontics and maxillofacial careful applications.

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