

Reducing Radiation Exposure to the Head and
Neck Region during Maxillary Incisors
Imaging Using a Limited Cone-beam X-ray CT

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Radiation exposure was compared among four imaging techniques : Limited Cone-beam X-ray CT (3DX-FPD) ; spiral CT (CT) ; panoramic X-ray (panoramic) ; and occlusal radiography (occlusal).

Radiation exposure was 55.43 mSV with CT, 36.84-10.56 mSV with 3DX-FPD, 16.89 mSV with panorama and 0.87 mSV with occlusal. Compared to CT, radiation exposure with 3DX-FPD was markedly smaller.

In addition, 3DX-FPD appears clinically useful for orthodontics because of its high resolution, superior anti-artifact measures, and clear imaging.

Key word : Limited Cone-beam X-ray CT, spiral CT, orthodontic treatment, 3DX-FDP