Intraoral Radiography: Occlusal Techniques


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Maxillary Occlusal Views
  Anterior Occlusal View (C)
  Standard Occlusal View (B)
  Lateral Occlusal View (Left or Right (MxR))
  True Occlusal View (A)

Mandibular Occlusal Views
  Anterior Occlusal View (D)
  True Occlusal View (E)
  Lateral Occlusal View (Left or Right (MdR))
For all of the occlusal views the 8" round PID is used, because of the increased size of the image receptor. The anterior and lateral occlusal views in both jaws are similar, in that they are identical to extreme bisect-the-angle periapical projections.

For the anterior occlusal views, in adults #4 size films or plates are placed on the occlusal surfaces of the teeth. The tube side of the receptor faces the occlusal surfaces of the arch being radiographed. The long axis of the receptor is usually directed in an antero-posterior direction. The receptor extends about 1/4 inch labial to the teeth. In pediatric patients, #2 size receptors are used, with the long axis running from side to side. In this case less of the receptor extends labially.
The angle between the long axis of the teeth and the receptor is bisected and the central ray of the beam is aimed at 90° to this bisecting plane, centered through the area of interest (see figure below). In the maxilla, the central ray is aimed through the tip of the nose, in the mandible just above the chin point. If the patient has his occlusal plane horizontal, the angle for each of these views is about 60°, that for the maxilla aimed downward, that for the mandible upward.
In the anterior occlusal technique the central ray of the x-ray beam is aimed at 90° to the plane bisecting the angle between the long axis of the tooth and the long axis of the receptor.
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In the lateral occlusal projections, the long axis of the receptor runs obliquely, so that the long side extends buccal to the teeth by about 1/4 inch, and runs parallel to the buccal surfaces of the teeth. The central ray is, once again, aimed at 90° to a plane bisecting the long axis of the teeth and the receptor, like a large bisect-the angle technique. The central ray is aimed just below the corner of the eye.
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All of the above produce radiographs that are like bisecting angle periapical radiographs, but on larger receptors. In the maxilla there is one view, the maxillary standard occlusal view, that is like a foreshortened periapical view. It shows more of the area of the nose, and is used not so much to look at the teeth as the surrounding area. The receptor is placed similar to that for the anterior occlusal view, except that the long axis runs from side to side. The central ray is aimed downward through the bridge of the nose at about 70°.
The true occlusal views are different. As with the other occlusal views, the receptor for each is placed on the occlusal surfaces of the teeth. The long axis of the receptor usually runs side to side, and the receptor extends about 1/2 inch to the labial of the arch. In the maxilla, if using film, this should only be done using an intra-oral cassette with screens and appropriate screen film. This cassette is about the size of a #4 size film. Since the cassette cannot be sterilized, it must be sealed in a small plastic bag.
The central ray for the maxilla is aimed through vertex, the high point of the top of the skull, downward at about 110°, that is, downward toward the front of the face, at the center of the receptor. In the mandible the central ray is aimed at 90° to the center of the receptor. Each depicts the teeth aligned in a horseshoe shaped arch, and can be used for locating foreign bodies. The mandibular view should show the cortices of the bone, to show fractures and periosteal reactions. The maxillary view is not a good one because the brain and skull cause so much secondary radiation that the image has poor contrast.