This document is provided as an informational resource for AVDC Equine residents who are generating an equine dental radiograph set for Credentials Committee review. It is not intended to be a comprehensive guide to equine dental and nasal radiography. It is a companion document to the Radiograph Requirement – Information for Equine Residents file, which is available in the Radiology section of the Information for Registered Residents page and the Equine Training Program Information page of the AVDC web site.

**Standard Views**

**Occlusal Intraoral Views of the Maxillary Incisor and Canine Teeth – Bisecting Angle Technique**

The imaging plate/sensor is placed in the mouth so that the edge of the plate/sensor is contacting the mesial aspect of the maxillary 2nd premolars. In some cases, the direct digital (DR) sensor can be turned 45 degrees, so that the corner of the sensor is advanced between the maxillary cheek teeth.

The central beam is directed 90 degrees to the plane that bisects the angle between the incisor reserve crown-root and the imaging plate. Due to the curvature of the incisors, the reserve crown-root, rather than the clinical crown, is used to determine the angle between the tooth and the imaging plate/sensor.
**Oblique Views** are obtained by shifting the radiograph generator 15 degrees laterally and directing the central beam on the maxillary 3rd incisor.

**Lateral Extraoral View of the Maxillary Canine Teeth**

The plate/sensor is positioned on the side of the head, with the diastema between incisors and cheek teeth centered.

As a straight lateral view will superimpose the right and left canine teeth, the central beam is directed in either a slight rostrocaudal (or caudorostral) direction and/or a slight ventrodorsal (or dorso-ventral).

**Occlusal Intraoral Views of the Mandibular Incisors and Canine Teeth, Bisecting Angle Technique**

The plate/sensor is placed in the mouth to the level of the mesial edge of the mandibular 2nd premolars. Adequate sedation is used to prevent chewing motion.

The central beam is directed perpendicular to the imaginary line that bisects the angle formed by the reserve crown-root of the incisors.

The oblique occlusal views are obtained by moving the generator 15-30 degrees left or right, centering the beam on the 3rd incisors.
**Lateral Extraoral View of the Mandibular Canine Teeth**

The plate is positioned on the side of the horse’s head, with the mouth open or closed.

The central beam is directed as the diastema between the incisors and cheek teeth. Separation of the reserve crown-root of the mandibular 3rd incisors and canine teeth will vary, and it may not always be possible to isolate the canine tooth root.

A slightly (10-30 degree) VD or DV oblique or rostrocaudal or caudorostral oblique angle may improve isolation of the mandibular canine teeth.

**Maxillary Cheek Teeth: Extraoral Views (Orthogonal Projections)**

The mouth is opened widely with a speculum or an incisor bite block.

The plate/sensor is placed on the side of the head, with the center over the rostral aspect of the facial crest.

The central beam is 30 degrees dorsal to the plane of the palate for the dorsoventral projection, and 45 degrees ventral to the plane of the palate for the ventrodorsal projection.

This angle may be adjusted to >45 degrees in the younger horse, so that the apices of the cheek teeth are not superimposed on the crowns of the contralateral arcade. Note that this is the same positioning for imaging the ipsilateral mandibular cheek teeth apices.

Similarly, the crowns of the ipsilateral mandibular cheek teeth are usually projected in the D30V projection of the maxillary cheek teeth.
Maxillary Cheek Teeth: Intraoral View (Bisecting Angle, Orthogonal Projection)

The mouth is maintained in an open position with a full mouth speculum.

The indirect radiography (CR) plate (4x8 inches) is placed on the occlusal aspect of the cheek teeth and against the palate.

The central beam is directed perpendicular to the plane that bisects the angle formed by the long axis of the tooth and the imaging plate.

In the young horse, the bisecting angle technique may project the apices off the imaging plate, and the image will have to be purposefully foreshortened to include the apices and 5 mm of apical alveolar bone.

Mandibular Cheek Teeth: Extraoral Views (Orthogonal Projections)

The mouth is opened fully with a speculum or bite block. The plate/sensor is placed on the side of the horse’s head, with the center of the plate over the rostral end of the facial crest.

The clinical crowns of the mandibular cheek teeth are imaged by directing the central beam 10-30 degrees to the plane of the palate in a dorsoventral direction, as previously described for the DV view of the maxillary cheek teeth. With the plate/sensor on the horse’s left side, this would image the crowns of the left mandibular cheek teeth, and the image would be presented with the rostral cheek teeth to the viewer’s left.

To image the apices of the mandibular cheek teeth, the central beam is directed in a ventrodorsal direction, 45-60 degrees to the plane of the palate, as previously described for imaging the apices of the maxillary cheek teeth. With the plate/sensor on the horse’s left side, this view would be presented with the horse’s rostral cheek teeth on the viewer’s left.
Mandibular Cheek Teeth, Intraoral Imaging (Parallel Technique, Orthogonal Projection)

The mouth is opened with a speculum, and the horse must be sedated adequately to eliminate tongue movement.

The CR plate (2-3 x 8 inches) is placed between the tongue and the mandibular cheek teeth.

The beam is directed perpendicular to the plane of the plate. Slight (5-10 degree) ventrodorsal obliquity will increase the amount of reserve crown-root imaged.

Dorsoventral Views

The mouth is closed for these projections.

The plate/sensor is placed under the head, flat against the ventral aspect of the mandibles.

Central beam is directed perpendicular to the plane of the palate, centered on the line connecting the rostral end of the right and left facial crests.

The offset mandible views are obtained with similar positioning, except that the mandible is held to the left or right.
Lateral (Sinus) View

The mouth can be closed or open for this view.

The plate or sensor is placed on the side of the head, with the center of the plate over the rostral end of the facial crest, insuring that adequate plate is available for imaging the dorsal aspect of the head.

The central beam is directed perpendicular to the plane of the plate/sensor, at the level of the rostral end of the facial crest.

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