Equine Radiographic Positioning Guide
## Credits

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natalie Allio</td>
<td>Positioning content, imaging, consulting</td>
</tr>
<tr>
<td>Greg Fava</td>
<td>Project manager</td>
</tr>
<tr>
<td>Andy Fu</td>
<td>Consulting</td>
</tr>
<tr>
<td>Nate Fu</td>
<td>Photography, design</td>
</tr>
<tr>
<td>Lindsay Petersen</td>
<td>Project coordinating, design</td>
</tr>
<tr>
<td>Natalie Tachibana</td>
<td>Project coordinating, design</td>
</tr>
<tr>
<td>Ned Waters</td>
<td>Positioning content, imaging, consulting</td>
</tr>
</tbody>
</table>

Special thank you to Dr. Russ Peterson for the use of Sheika and his facility at Peninsula Equine in Menlo Park, CA.

Eklin Medical Systems, Inc. 1605 Wyatt Drive, Santa Clara, CA 95054 USA 408.492.0057 or 1.800.819.5538

Copyright © 2006 Eklin Medical Systems, Inc. All rights reserved. 10/06
**X-Ray Unit Position:** Lateral to foot.

**X-Ray Beam Angle:** Parallel to ground, perpendicular to mid-sagittal plane.

**Panel Position:** Against medial aspect of foot, perpendicular to beam.

**Preparation:** Place foot on block.
**X-Ray Unit Position:** Dorsal to foot.

**X-Ray Beam Angle:** Angled down 45°, parallel to mid-sagittal plane, centered on coronary band. (Alternate method: beam angle parallel to ground)

**Panel Position:** Against palmar aspect of foot, perpendicular to beam.

**Preparation:** Place foot on block.
X-Ray Unit Position: Dorsal to foot.

X-Ray Beam Angle: Angled down 60°, parallel to mid-sagittal plane, centered coronary band.

Panel Position: Center foot on tunnel. Place panel in tunnel.

Foot Preparation: Clean foot to avoid artifacts from debris. Pack sulci with “Play Doh” or similar material.
**X-Ray Unit Position:** Dorsal to foot.

**X-Ray Beam Angle:** Angled down 65°, parallel to mid-sagittal plane, centered 1/2-inch above coronary band.

**Panel Position:** Center foot on tunnel. Place panel in tunnel.

**Foot Preparation:** Clean foot to avoid artifacts from debris. Pack sulci with “Play Doh” or similar material.
**X-Ray Unit Position:** Behind leg.

**X-Ray Beam Angle:** Angled down 45°, parallel to mid-sagittal plane, centered between bulbs of heel on palmar pastern.

**Panel Position:** Center foot on tunnel. Place panel in tunnel.

**Foot Preparation:** Clean foot to avoid artifacts from debris. Pack sulci with “Play Doh” or similar material.
**X-Ray Unit Position:** Dorsal to foot, 45° lateral from mid-sagittal plane.

**X-Ray Beam Angle:** Angled down 60°.

**Panel Position:** Center foot on tunnel. Place panel in tunnel.
X-Ray Unit Position: Dorsal to foot, 45° medial from mid-sagittal plane.

X-Ray Beam Angle: Angled down 60°.

Panel Position: Center foot on tunnel. Place panel in tunnel.
X-Ray Unit Position: Lateral to pastern.

X-Ray Beam Angle: Parallel to ground, perpendicular to mid-sagittal plane.

Panel Position: Against medial aspect of pastern, perpendicular to beam.

Preparation: Place foot on block.
**X-Ray Unit Position:** Dorsal to pastern.

**X-Ray Beam Angle:** Angled down 30°, parallel to mid-sagittal plane.

**Panel Position:** Against palmar aspect of pastern, perpendicular to beam.
**X-Ray Unit Position:** Dorsal to pastern, 45° lateral from mid-sagittal plane.

**X-Ray Beam Angle:** Angled down 20°.

**Panel Position:** Against palmar medial aspect of pastern, perpendicular to beam.

**Preparation:** Place foot on block.
**X-Ray Unit Position:** Dorsal to pastern, 45° medial from mid-sagittal plane.

**X-Ray Beam Angle:** Angled down 20° - 30°.

**Panel Position:** Against palmar lateral aspect of pastern, perpendicular to beam.

**Preparation:** Place foot on block.
**X-Ray Unit Position:** Lateral to fetlock.

**X-Ray Beam Angle:** Parallel to ground, perpendicular to mid-sagittal plane.

**Panel Position:** Against medial aspect of fetlock, perpendicular to beam.
**X-Ray Unit Position:** Dorsal to fetlock.

**X-Ray Beam Angle:** Angled down 30°, parallel to mid-sagittal plane, centered on fetlock joint.

**Panel Position:** Against palmar aspect of fetlock, perpendicular to beam.
**X-Ray Unit Position:** Dorsal to fetlock, 45° lateral from mid-sagittal plane.

**X-Ray Beam Angle:** Angled down 20°, centered on fetlock joint.

**Panel Position:** Against palmar medial aspect of fetlock, perpendicular to beam.
X-Ray Unit Position: Dorsal to fetlock, 45° medial from mid-sagittal plane.

X-Ray Beam Angle: Angled down 20°, centered on fetlock joint.

Panel Position: Against palmar lateral aspect of fetlock, perpendicular to beam.
**X-Ray Unit Position:** Lateral to flexed fetlock.

**X-Ray Beam Angle:** Parallel to ground, perpendicular to mid-sagittal plane, centered on flexed fetlock joint.

**Panel Position:** Against medial aspect of flexed fetlock, perpendicular to beam.
**X-Ray Unit Position:** Lateral to metacarpus.

**X-Ray Beam Angle:** Parallel to ground, perpendicular to mid-sagittal plane.

**Panel Position:** Against medial aspect of metacarpus, perpendicular to beam.
**X-Ray Unit Position:** Dorsal to metacarpus.

**X-Ray Beam Angle:** Parallel to ground and mid-sagittal plane, centered mid-metacarpus.

**Panel Position:** Against palmar aspect of metacarpus, perpendicular to beam.
X-Ray Unit Position: Dorsal to metacarpus, 45° - 55° lateral from mid-sagittal plane.

X-Ray Beam Angle: Parallel to ground.

Panel Position: Against palmar medial aspect of metacarpus, perpendicular to beam.
**X-Ray Unit Position:** Dorsal to metacarpus, 30° - 45° medial from mid-sagittal plane.

**X-Ray Beam Angle:** Parallel to ground.

**Panel Position:** Against palmar lateral aspect of metacarpus, perpendicular to beam.
**X-Ray Unit Position:** Lateral to carpus.

**X-Ray Beam Angle:** Parallel to ground, centered on carpal joint.

**Panel Position:** Against medial aspect of carpus, perpendicular to beam.
X-Ray Unit Position: Dorsal to carpus.

X-Ray Beam Angle: Parallel to ground, centered on carpal joint.

Panel Position: Against palmar aspect of carpus, perpendicular to beam.
**X-Ray Unit Position:** Dorsal to carpus, 55° lateral from mid-sagittal plane.

**X-Ray Beam Angle:** Parallel to ground, centered on carpal joint.

**Panel Position:** Against palmar medial aspect of carpus, perpendicular to beam.
**X-Ray Unit Position:** Dorsal to carpus, 55° medial from mid-sagittal plane.

**X-Ray Beam Angle:** Parallel to ground, centered on carpal joint.

**Panel Position:** Against palmar lateral aspect of carpus, perpendicular to beam.
X-Ray Unit Position: Lateral to flexed carpus.

X-Ray Beam Angle: Parallel to ground, perpendicular to mid-sagittal plane, centered on flexed carpal joint.

Panel Position: Against medial aspect of carpus, perpendicular to beam.
**X-Ray Unit Position:** Dorsal and proximal to flexed carpus.

**X-Ray Beam Angle:** Angled down 45°.

**Panel Position:** Against proximal metacarpal region, parallel to ground.

**Limb Position:** Partial flexion of carpus (about 3/4), radius angled cranially, metacarpus parallel to ground.
X-Ray Unit Position: Dorsal and proximal to flexed carpus.

X-Ray Beam Angle: Angled down 45°.

Panel Position: Against proximal metacarpal region, parallel to ground.

Limb Position: Maximum flexion of carpus (about 3/4), radius pushed as far cranial as possible, metacarpus parallel to ground.
X-Ray Unit Position: Dorsal and proximal to flexed carpus.

X-Ray Beam Angle: Angled down 70°.

Panel Position: Against proximal metacarpal region, parallel to ground.
X-Ray Unit Position: Palmar to carpus, 55° lateral from mid-sagittal plane.

X-Ray Beam Angle: Parallel to ground, centered on carpal joint.

Panel Position: Against dorsal medial aspect of carpus, perpendicular to beam.
X-Ray Unit Position: Lateral to hind pastern.

X-Ray Beam Angle: Parallel to ground.

Panel Position: Against medial aspect of hind pastern, perpendicular to beam.

Preparation: Place foot on block.
**X-Ray Unit Position:** Dorsal to hind pastern.

**X-Ray Beam Angle:** Angled down 20°- 30°, parallel to mid-sagittal plane.

**Panel Position:** Against plantar aspect of hind pastern, perpendicular to beam.

**Preparation:** Place foot on block.
X-Ray Unit Position: Dorsal to hind pastern, 45° lateral from mid-sagittal plane.


Panel Position: Against plantar medial aspect of hind pastern, perpendicular to beam.

Preparation: Place foot on block.
X-Ray Unit Position: Dorsal to hind pastern, 45° medial from mid-sagittal plane.


Panel Position: Against plantar lateral aspect of hind pastern, perpendicular to beam.

Preparation: Place foot on block.
X-Ray Unit Position: Lateral to hind fetlock.

X-Ray Beam Angle: Parallel to ground, perpendicular to mid-sagittal plane.

Panel Position: Against medial aspect of hind fetlock, perpendicular to beam.
X-Ray Unit Position: Dorsal to hind fetlock.

X-Ray Beam Angle: Angled down 30°, parallel to mid-sagittal plane, centered on hind fetlock joint.

Panel Position: Against plantar aspect of hind fetlock, perpendicular to beam.
X-Ray Unit Position: Dorsal to hind fetlock, 45° lateral from mid-sagittal plane.

X-Ray Beam Angle: Angled down 20°, centered on hind fetlock joint.

Panel Position: Against plantar medial aspect of hind fetlock, perpendicular to beam.
**X-Ray Unit Position:** Dorsal to hind fetlock, 45° medial from mid-sagittal plane.

**X-Ray Beam Angle:** Angled down 20°, centered on hind fetlock joint.

**Panel Position:** Against plantar lateral aspect of hind fetlock, perpendicular to beam.
**X-Ray Unit Position:** Lateral to flexed hind fetlock.

**X-Ray Beam Angle:** Parallel to ground, perpendicular to mid-sagittal plane, centered on flexed hind fetlock joint.

**Panel Position:** Against medial aspect of flexed hind fetlock, perpendicular to beam.
**X-Ray Unit Position:** Lateral to metatarsus.

**X-Ray Beam Angle:** Parallel to ground.

**Panel Position:** Against medial aspect of metatarsus, perpendicular to beam.
**X-Ray Unit Position:** Dorsal to metatarsus.

**X-Ray Beam Angle:** Parallel to ground, centered on mid-metatarsus.

**Panel Position:** Against plantar aspect of metatarsus, perpendicular to beam.
**X-Ray Unit Position:** Dorsal to metatarsus, 45° - 55° lateral from mid-sagittal plane.

**X-Ray Beam Angle:** Parallel to ground.

**Panel Position:** Against plantar medial aspect of metatarsus, perpendicular to beam.
X-Ray Unit Position: Plantar to metatarsus, 35° - 45° lateral from mid-sagittal plane.

X-Ray Beam Angle: Parallel to ground.

Panel Position: Against palmar medial aspect of metatarsus, perpendicular to beam.
**X-Ray Unit Position:** Dorsal to metatarsus, 35° - 45° medial from mid-sagittal plane.

**X-Ray Beam Angle:** Parallel to ground.

**Panel Position:** Against plantar lateral aspect of metatarsus, perpendicular to beam.
**X-Ray Unit Position:** Lateral to tarsus.

**X-Ray Beam Angle:** Angled down 5°, centered on tarsal joint.

**Panel Position:** Against medial aspect of tarsus, perpendicular to beam.
**X-Ray Unit Position:** Dorsal to tarsus.

**X-Ray Beam Angle:** Parallel to ground, centered on tarsal joint.

**Panel Position:** Against plantar aspect of tarsus, perpendicular to beam.
**X-Ray Unit Position:**  Dorsal to tarsus, 45° lateral from mid-sagittal plane.

**X-Ray Beam Angle:**  Parallel to ground, centered on tarsal joint.

**Panel Position:**  Against plantar medial aspect of tarsus, perpendicular to beam.
X-Ray Unit Position: Plantar to tarsus, 35° - 45° lateral from mid-sagittal plane.

X-Ray Beam Angle: Angled up 5°, centered on tarsal joint.

Panel Position: Against palmar medial aspect of tarsus, perpendicular to beam.
**X-Ray Unit Position:** Dorsal to tarsus, 45° medial from mid-sagittal plane.

**X-Ray Beam Angle:** Parallel to ground, centered on tarsal joint.

**Panel Position:** Against plantar lateral aspect of tarsus, perpendicular to beam.
**X-Ray Unit Position:** Plantar and proximal to flexed tarsus.

**X-Ray Beam Angle:** Angled down 60° - 65°, centered on flexed tarsus.

**Panel Position:** Against proximal aspect of metatarsal region, parallel to ground.
**X-Ray Unit Position:**  Lateral to stifle joint.

**X-Ray Beam Angle:**  Parallel to ground, perpendicular to mid-sagittal plane of stifle joint.

**Panel Position:**  Against medial aspect of stifle joint, perpendicular to beam.
**X-Ray Unit Position:** Posterior (caudal) to stifle joint.

**X-Ray Beam Angle:** Angled down 5°.

**Panel Position:** Against anterior (cranial) aspect of stifle joint, perpendicular to beam.
**X-Ray Unit Position:**  Plantar to stifle joint, 40° - 50° lateral from mid-sagittal plane.

**X-Ray Beam Angle:**  Parallel to ground.

**Panel Position:**  Against cranial medial aspect of stifle joint, perpendicular to beam.
**X-Ray Unit Position:** Proximal to stifle joint as close to mid-sagittal plane as possible.

**X-Ray Beam Angle:** Angled down 60° - 70°.

**Panel Position:** Against cranial aspect of proximal tibia, parallel to ground.

**Leg Position:** Leg flexed with tibia parallel to ground.
X-Ray Unit Position: Lateral to skull.

X-Ray Beam Angle: Parallel to ground, centered on facial crest.

Panel Position: Opposite side of head, perpendicular to beam.
**X-Ray Unit Position:** Dorsal to skull.

**X-Ray Beam Angle:** Angled down, perpendicular to sinus bones, centered below level of eyes.

**Panel Position:** Under horse’s head, perpendicular to beam.
X-Ray Unit Position: Lateral to skull.

X-Ray Beam Angle: Angled down, perpendicular to sinus, 35° - 45° caudal from mid-sagittal plane, centered on sinus.

Panel Position: Against opposite side of skull, perpendicular to beam.
**X-Ray Unit Position:** Lateral to mandible.

**X-Ray Beam Angle:** Angled down, perpendicular to mandible, 30°- 40° caudal from mid-sagittal plane, centered mid-mandible.

**Panel Position:** Against opposite side of mandible, perpendicular to beam.
**X-Ray Unit Position:** Lateral to spine.

**X-Ray Beam Angle:** Parallel to ground, centered on cranial cervical spine.

**Panel Position:** Against opposite side of spine, perpendicular to beam.
**X-Ray Unit Position:**  Lateral to spine.

**X-Ray Beam Angle:**  Parallel to ground, centered on middle region of spine.

**Panel Position:**  Against opposite side of cervical spine, perpendicular to beam.
X-Ray Unit Position: Lateral to spine.

X-Ray Beam Angle: Parallel to ground, centered on caudal cervical spine.

Panel Position: Against opposite side of spine, perpendicular to beam.
Positioning Nomenclature

Cranial ← Caudal

Proximal

Distal

Dorsal

Ventral

Dorsal

Palmar

Plantar
Oblique Views

Dorsolateral-palmaromedial (DLPMO)

Dorsomedial-palmarolateral (DMPLO)

Palmarolateral-dorsomedial (PLDMO)

Palmaromedial-dorsolateral (PMDLO)

Mid-sagittal plane
Caudal: Directional term used to describe parts of the head, neck, and body positioned toward the tail from any given point. The term caudal may also be used to describe aspects of the limbs above the carpal and tarsal joints that face toward the tail.

Cranial: Directional term used to describe parts of the neck, body, and tail positioned toward the head from any given point. The term cranial may also be used to describe aspects of the limbs above the carpal and tarsal joints that face toward the head.

Distal: Lower aspect of limb(s), away from the body.

DLPMO: Directional term used to describe the direction of the X-Ray beam with the beam entrance dorsolateral and the exit palmaromedial/plantaromedial.

DMPLO: Directional term used to describe the direction of the X-Ray beam with the beam entrance dorsomedial and the exit palmarolateral/plantarolateral.

Dorsal: Term used to refer to the upper aspects of the head, neck, body, and tail. The term dorsal may also be used to describe the aspects of the legs from the carpus and tarsus joints distally that face toward the head.

Dorsopalmar (DP): Directional term used to describe the direction of the X-Ray beam with the beam entrance dorsal and the exit on the palmar surface of the forelimb.
Glossary continued

**Dorsoplantar (DP):** Directional term used to describe the direction of the X-Ray beam with the beam entrance dorsal and the exit on the plantar surface of the hindlimb.

**Dorsoventral (DV):** Directional term used to describe the direction of the X-Ray beam with the beam entrance dorsal and the exit ventral.

- **Lateral:** Aspect of the body toward the side and away from the mid-sagittal plane.
- **Medial:** Aspect of the body toward the mid-sagittal plane and away from the side.

**Mid-sagittal Plane:** Longitudinal plane that divides the horse’s body symmetrically into right and left sections.

**Oblique:** Directional term used to indicate when the X-Ray beam is angled through an area of interest at an angle other than perpendicular.

**Palmar:** Directional term used to describe the aspect of the forelimb facing toward the tail from the carpal joint distally.

**Plantar:** Directional term used to describe the aspect of the hindlimb facing toward the tail from the tarsal joint distally.
**PLDMO**: Directional term used to describe the direction of the X-Ray beam with the beam entrance palmarolateral/plantarolateral and the exit dorsomedial.

**Posterior-Anterior (PA)**: Directional term used to describe the direction of the X-Ray beam with the beam entrance posterior and the exit anterior.

**Proximal**: Upper aspect of limb(s), closest to the body.

**Sulci**: A groove, crevice, or furrow. In equine imaging, sulci refers to the furrows on either side of the frog of the horse’s hoof.

**Ventral**: Lower aspect of the head, neck, body, and tail.