Lameness in the Horse

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Lameness

- Any alteration of the horse's gait
- Change in attitude or performance
- Mechanical and neurological
Lameness

- Abnormalities caused by pain:
  - Neck
  - Shoulders
  - Legs
  - Withers
  - Back
  - Feet
  - Loin
  - Hips
### AAEP Lameness Scale

<table>
<thead>
<tr>
<th>Grade</th>
<th>Degree of Lameness</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Lameness not perceptible under any circumstances</td>
</tr>
<tr>
<td>1</td>
<td>Lameness is difficult to observe and is not consistently apparent, regardless of circumstances</td>
</tr>
<tr>
<td>2</td>
<td>Lameness is difficult to observe at a walk, or when trotting in a straight line, but consistently apparent under certain circumstances</td>
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<tr>
<td>3</td>
<td>Lameness is consistently observable at a trot under all circumstances</td>
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<tr>
<td>4</td>
<td>Lameness is obvious at a walk</td>
</tr>
<tr>
<td>5</td>
<td>Lameness produces minimal weight bearing in motion and/or at rest or a complete inability to move</td>
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</tbody>
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Examination Procedures

• Evaluation at the horse in motion
  – Hard and soft surfaces
  – Under saddle
  – Longe line
Examination Procedures

• Shortening of the stride
• Irregular foot placement
• Head bobbing
• Stiffness
• Weight shifting
Front Limb Lameness

• The head and the neck elevate or rise when the lame forelimb is bearing weight or hits the ground and nods down when the sound forelimb hits the ground.
Hind Limb Lameness

• The pelvis “hikes” upward when the lame limb hits the ground and moves downward when the sound limb hits the ground
  – i.e. the side with the most movement is the lame hind limb
Examination Procedures

- Medical history
- Visual appraisal
- Hands on exam
- Hoof testers
- Joint flexion tests
Diagnostic Testing

- Nerve blocks
- Joint blocks
Diagnostic Testing

• Radiographs
Diagnostic Testing

• Scintigraphy (Nuclear scanning)
Diagnostic Testing

• Ultrasound (Sonography)
Diagnostic Testing

- Arthroscopy
- MRI (Magnetic Resonance Imaging)
- Blood, synovial (joint) fluid and tissue samples
Systemic Therapies for Joints

- Nonsteroid anti-inflammatory drugs
  - Phenylbutazone "bute"
  - Naproxen
  - Flunixin meglumine "Banamine"
  - Ketoprofen "Ketofen"
  - Firocoxib "Equioxx"
- Hyaluronan (HA)
  - Legend
- Polysulfated glycosaminoglycans (PSGAGs)
  - Adequan IA or IM
  - Pentosan polysulfate "Pentosan"
- Bisphonates
  - Bisphosphonate tiludronate "Tildren"
- Tetracyclines
  - Doxycycline
Intra-Articular Joint Therapies

- **Corticosteroids**
  - Short-acting- Vetalog (triamcinolone acetomide)
  - Medium-acting- Betamethasone
  - Long-acting- Depo-Medrol (methylprednisolone)

- **Hyaluronan (HA)**
  - Hylartin-V
  - Legend IA
  - Hyvic

- **Polysulfated glycosaminoglycan**
  - Adequan IA

- **IRAP**

- **PRP**
Regenerative Therapies for Ligaments and Tendons

- Platelet Rich Plasma (PRP)
  Growth factors which improve healing process
Regenerative Therapies for Ligaments and Tendons

- Stem Cells
  - Differentiates into tissue types
  - Derived from adipose (fat) or bone marrow
Extracorporeal Shock Wave