Dr. Jennifer Karl, veterinarian, was caring for a horse, Pep, with hoof issues (part of the exam attached). Kirk Underschultz, certified journeyman farrier AFA 471, was called to consult. After reviewing the vet’s report and examining Pep he selected Happy HoofWear™ horseshoes and part of the overall care program. There were three reasons for this choice:

1. **Hoofs were reactive to hoof testers.** Happy HoofWear™ horseshoes are very efficient at absorbing concussion thereby decreasing pressure to the hoof.

2. **Thin soles.** The wide web of the Happy HoofWear™ horseshoe gives excellent protection to the sole while the thickness of the shoe lifts the sole up off of the ground minimizing contact and the resulting pressure.

3. **Long toe, under-run heels.** With Happy HoofWear™ horseshoes I can cut the clip off and set the shoe back allowing me to dress up the toe of the hoof and achieving a higher hoof angle. As well Happy HoofWear™ horseshoes will minimize the wear factor of the heels of the hoof rubbing against the shoe, which gradually lowers the hoof angle. At the same time I can roll the toe reducing pressure on the joints.

The immediate result of all this was a much more comfortable horse. Within a month she was sound and able to be put back into full work, and has remained in a full work schedule to date.
Lameness Evaluation

History: Pep has been exhibiting soreness in her front feet. Kirk Underschultz (farrier) was out to trim her feet and was concerned about how sore Pep was in her heel region. He recommended radiographs of the front feet to evaluate the internal structures. Pep had been started into work as a 2 year old. Since being with the Shewro's, she has gone through retraining and calming exercises. She was not ridden very often last summer but did switch from Enrich 12 to Enrich 32 at the beginning of the summer. She has been hesitant to pick up the left canter lead. She has also been hesitant to cross the RF limb over the LF limb when performing lateral movements. Andria has also noticed Pep pointing the RF foot. Pep seems to be most sore after riding in the trailer and being turned out on frozen ground.

Palpation Findings:

LF: Medial (inside) splint present. The splint is no longer warm and was not sensitive to palpation today. Digital pulses within normal limits. Sensitive to hoof testers over the toe and heel region of the LF foot. Soles were thin and very flexible on palpation. Increased joint fluid present in the lower knee (carpal) joint.

RF: Digital pulses within normal limits. Sensitive to hoof testers at the heels; not as sensitive at the toe as she is in the LF foot. Splint bones are prominent but palpate within normal limits. Increased swelling present between the heel bulbs when compared to the LF foot.

LH: Within normal limits. Mild decrease in range of motion on flexion of the hock.

RH: Sensitive to manipulation of this limb. Increased heat present in the lower hock joints. Pep was sensitive to having the hock joint flexed.

Hoof Tester Response (+/-)

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<tbody>
<tr>
<td>Left Front</td>
<td>Positive</td>
</tr>
<tr>
<td>Right Front</td>
<td>Positive</td>
</tr>
<tr>
<td>Left Hind</td>
<td>---</td>
</tr>
<tr>
<td>Right Hind</td>
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Flexion Testing (UL = Upper Limb, LL = Lower Limb):

LF LL: WNL (within normal limits)

LF UL: WNL

RF LL: WNL

RF UL: WNL
LH LL: WNL

LH UL: Mild decrease in range of motion when the hock is flexed.

RH LL: WNL

RH UL: Moderate sensitivity to flexion of the hock. Pep becomes very nervous when the hock is flexed; it took several attempts for her to allow flexion.

Additional Comments:

When standing, Pep has a tendency to stand with the RF limb extended forward (pointing). When tracking, she lands on the outside (lateral) wall of the RF limb. She also tends to pick up the RF foot to the outside (abduction) when placing it forward in the stride. The abduction allows her to land on the lateral (outside) wall of the right front foot. When asked to perform lateral movements, Pep is very hesitant to cross the RF limb over the LF limb. She exhibits normal, fluid movement when crossing the LF limb over the RF. Pep was not willing to track to the left (counter clockwise) on the lunge line. She was much more willing to track to the right (clockwise). The left canter lead has been problematic for Pep. We did not ask her to pick up the canter during today's examination due to her hesitance to track to the left. Pep did not exhibit soreness when her knees were flexed despite her tendency to keep the knee straight when moving the RF foot.

Based on Pep's tendency to guard the medial (inside) wall of the RF foot, we discussed the possibility of a collateral ligament or soft tissue injury in the right front foot. Plan to skip nerve blocks at this time since Pep's lameness appears to originate from her front feet. We will radiograph the front feet today.

Diagnostic Procedures:

Lateromedial and DP radiographs taken of both front feet today. Navicular views also taken of the RF foot.


Radiographic Findings Left Front: Thin soles, low heel. Mild remodeling on the dorsal aspect of P2 secondary to pull of the coffin joint capsule. Lateral (outside) sidebone more developed. Medial (inside) wall higher/longer than outside wall. Thin soles, no signs of rotation.

Potential next steps: further diagnostics on the right hock, blocking front feet to be sure there is not secondary lameness in either forelimb

Treatments:

We discussed the following to start treatment:

1. Apply Venice Turpentine to the soles to toughen them while we wait for additional growth

2. Apply Reducine to the coronary bands of both front feet just below the hairline to try to stimulate hoof growth.
3. Stall rest with turnout when the ground is not frozen

4. Discussed exploring the option of Renegade boots or a similar product to provide her some protection on hard ground

5. Plan to email Kirk the radiographs and measurements to help facilitate future trims

6. Discussed starting Pep on Farrier’s Formula to stimulate hoof growth. She can continue to receive the Enrich 32 along with her hay based on today’s examination.

Treatments that were discussed and may be initiated in the future:

1. Isoxsuprine: oral medication to help increase blood flow to the front feet

2. Surpass (topical anti-inflammatory) application around the coronary band and between the heel bulbs in the RF foot to decrease inflammation and discomfort. The Surpass can also be used on the right hock when Pep starts back to work to try to help decrease her pain that may be interfering with the left canter lead.

3. Injection of one or both coffin joints to decrease inflammation and decrease pain within the hoof capsule. We discussed the possibility of a soft tissue injury within the right front feet. These injections are often used in conjunction with trimming changes and lifestyle modifications to help decrease pain.

4. If our barefoot treatment options are exhausted and Pep is still sore, we may need to consider therapeutic shoeing for both front feet

**Recommendations:**

Plan to start treating Pep to toughen her feet. We will also work on the physics of her feet through trimming. We are starting with the least invasive options but have other options available if we need to utilize them to keep Pep comfortable.

Pep was an excellent patient for today’s examination. Please let me know if you have any questions or concerns.
OWNER: Sharrow

VETERINARIAN: Karl

FARRIER: Underschultz

HORSE: Pep

BREED: OH

GENDER: ML	AGE: 1yr

DATE OF RADIOGRAPH: 1/27/12

DATE OF DATA COLLECTION: 1/27/12

WIRE LENGTH
Actual = 55 mm
Radiologically = 10.3 mm

FOUNDER TYPE
Laminitis Acute CT-I CT-II Sinker

ANGLE S (Dorsal Wall Angle) = 52.9 degrees
ANGLE T (P-3 Angle) = 53.5 degrees
ANGLE U (Phalanx Angle) = 55 degrees
ANGLE V (Solar Border Angle) = 47 degrees

ANGLE OF HOOF CAPSULE ROTATION = Angle T (53.5) minus Angle S (52.9) = 0.6 degrees

ANGLE OF DISTAL PHALANX ROTATION = Angle T (53.5) minus Angle U (55) = -1.5 degrees

L (PALMAR CORTEX OF THE DISTAL PHALANX DISTANCE)
Radiologically = 16.5 mm
Corrected for Magnification = 11.7 mm

WT (WALL THICKNESS)
Radiologically = 1.5 mm
Corrected for Magnification = 10.4 mm

D (FOUNDER DISTANCE)
Radiologically = 16.9 mm
Corrected for Magnification = 10.3 mm

MAGNIFICATION CORRECTION
Actual Wire Length = 55 mm
Radiographic Wire = 10.3 mm
Magnification Correction = 55 / 10.3 = 5.3

F (FROG PLATE PLACEMENT CALCULATION)
Radiologically = 9.7 mm
Corrected for Magnification = 8.7 mm

ST (SHOE TOE PLACEMENT CALCULATION)
Radiologically = 58.0 mm
Corrected for Magnification = 46.8 mm

SD (SOLE DEPTH CALCULATION)
Radiologically = 6.2 mm
Corrected for Magnification = 5.4 mm

VETERINARIAN/FARRIER TREATMENT TO DATE AND ANY OTHER CONCURRENT PROBLEMS:
(Abscess, Serum Pockets, Infectious Osteitis, Pedal Osteitis, Osteomyelitis, Dropped Sole, Prolapsed Sole, Ringbone, Sidebones...)

Lateral (outside) side bone more developed. Medial (inside) wall higher, longer, steeper. Outside wall thin, so no signs of rotation. Low heels, mild remodeling at tip of P3 (cotton bone).
Owner: Sharrow
Veterinarian: Karl
Farrier: underschultz
Horse: pep
Breed: CMH
Gender: Mr. Age: 7 yr
Date of Radiograph: 1/27/12
Date of Data Collection: 1/27/12

Wire Length
Actual = 55 mm
Radiologically = 60 mm

Magnification Correction = Actual Wire Length
= Radiographic Wire

Laminitis: Acute CT-I CT-II Sinker

Angle S (Dorsal Wall Angle) = 52.7 degrees
Angle T (P-3 Angle) = 53 degrees
Angle U (Phalax Angle) = 59.7 degrees
Angle V (Solar Border Angle) = 3.5 degrees

Angle of Hoof Capsule Rotation = Angle T (53) minus Angle S (52.7) = 0.3 degrees
Angle of Distal Phalanx Rotation = Angle T (53) minus Angle U (59.7) = -6.7 degrees

L (Palmar Cortex of the Distal Phalanx Distance)
Radiologically = 67.5 mm
Corrected for Magnification = 62.1 mm

WT (Wall Thickness)
Radiologically = 11.4 mm
Corrected for Magnification = 10.5 mm

D (Founder Distance)
Radiologically = 3.6 mm
Corrected for Magnification = 3.3 mm

Veterinarian/Farrier Treatment to Date and Any Other Concurrent Problems:
(Abscess, Serum Pockets, Infectious Osteitis, Pedal Osteitis, Osteomyelitis, Dropped Sole, Prolapsed Sole, Ringbone, Sidebones...)

Thin sole. Lew hard. Outside (lateral) wall slightly higher/lower than medial. Angular spheroids present. Thinning of the navicular floor surface. Mild remodeling at tip of P3 condyle.

2008 by Esco Buff, PhD, CF