



Thermal Imaging Report

Zane



*Thermal Imaging completed by
a Certified Thermographer
Authorized with the EquineIR™
Network.*



*Interpretative results
completed by Licensed
Veterinarians in contract with
Integrated Equine Infrared.*



SoCal Infrared Thermal Imaging Services

P.O. Box 1413 Bonsall, CA 92003

PH: 888-762-2547

FX: 888-747-0277

WEB: www.socalinfrared.com

EMAIL: info@socalinfrared.com



Phone: 888-762-2547
Email: info@socalinfrared.com
Web: www.socalinfrared.com
www.equineir.com

PATIENT: Zane

THERMOGRAPHY DATE: January 27., 2013

IMAGING TIME: 8:30 am

January 31, 2014

Cameron Griffin
401 Wilshire
Oceanside, CA 92058

Dear Cameron Griffin:

EquineIR was recently requested to perform a full body thermal imaging scan of: **Zane**

The following photo report was completed by your EquineIR™ Certified Thermographer and all interpretative results were channeled through interpretir.com and subsequently formulated and input by a licensed veterinary team member with Integrated Equine Infrared.

The interpretation is intended to aid your state-licensed veterinarian in providing a diagnostic or treatment protocol. All follow-up testing and treatments should be conducted and administered by your primary veterinarian. The interpretation provided is based solely on the conditions at the time of survey and the thermal images included in this report. Thermography is a diagnostic tool that measures heat emitted from the surface of the patient. The thermal imaging camera converts infrared energy into a visible image. Emitted heat is related to circulation; as such, the thermal camera can help detect areas of inflammation as well as decreased circulation. Thermal symmetry is key, so you compare one anatomic area with the same area on the other side. The EquineIR™ report is prepared in this manner. It should be understood that correct patient preparation and environment are vital to a successful survey. Your EquineIR™ technician is also a Certified Infrared Thermographer and has been trained in the proper use and the proven techniques of thermal imaging as it is used with horses. There are however certain situations which may reduce the quality of the survey including the improper preparation of the horse prior to technician's arrival. The interpreting veterinarians who review the imagery base their findings and recommendations on information provided, so it is critical that proper care be taken in the preparation process to ensure success.

Thermal imaging is a physiologic modality and should not be relied upon as the sole diagnostic tool. A complete clinical examination by your state-licensed veterinarian is always recommended for the best diagnosis and follow-up treatment. This Report is not a definitive diagnosis of any illness or disease. It is intended for use only by licensed veterinary professionals to evaluate patient health, diagnose medical conditions, and provide treatment. It is not to be used by individuals for self-diagnosis or self-evaluation, nor for the diagnosis or evaluation of other non-qualified personnel. This report does not replace, nor is intended to replace a complete clinical evaluation by your state-licensed veterinarian. Under no circumstances will EquineIR™, Integrated Equine Infrared or its affiliates be held responsible for illness, injury, or death to the patient as a result of the information contained herein. This report does not replace, nor is intended to replace a complete clinical evaluation.

Your EquineIR™ Technician looks forward to working with you in the future. If you would like to set up an ongoing maintenance imaging program for your horse(s), we can arrange this at discounted rates along with multiple horse discounts. Please call our office with any questions as we would love to assist you in your success.

Sincerely,

Peter Hopkins, SoCal Infrared
Level III Certified Infrared Thermographer #4424

PATIENT: Zane

THERMOGRAPHY DATE: January 27., 2013

IMAGING TIME: 8:30 am

EQUINE CLIENT INFORMATION

CLIENT NAME: Cameron Griffin / Trainer
MAILING ADDRESS: 401 Wilshire, Oceanside, CA 92058
CLIENT EMAIL: griffinequestriantraining@gmail.com
CLIENT PHONE: 760-224-1186

HORSE AGE: 14
HORSE BREED: Thoroughbred
HORSE PRIMARY USE: Dressage

SURVEY INFORMATION

THERMOGRAPHER: Peter Hopkins
INFRARED CERTIFICATION #: 4424
INFRARED CAMERA MODEL: Flir T420 **CAMERA SERIAL NUMBER:** 62105651
NUMBER OF THERMAL IMAGES SUBMITTED: 30

WEATHER: Sunny/Clear
APPROXIMATE TEMPERATURE: 58 °F
IMAGING LOCATION: Barn aisle

EXERCISED PRIOR: Yes **HOW LONG:** 25 min **WHEN:** 6:47am
TYPE OF EXERCISE: Walk, Trot, Cantor

BOOTS OR WRAPS ON HORSE? No **HOURS SINCE:** Not Applicable
FLYSpray OR LINIMENTS APPLIED WITHIN 24 HOURS: No

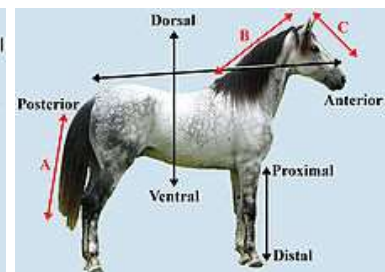
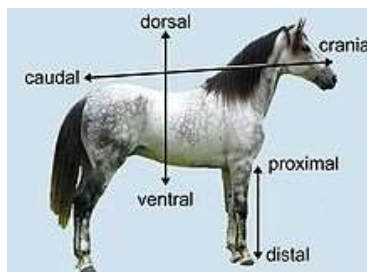
REASON FOR SCAN or HISTORY RECEIVED: Comparison with the previous report (2 years ago?, different technician), Owner of horse has been bucked twice recently. Vet visit was 8 months ago received cast in the stall and stitches in the front right leg. Last farrier visit is unknown. Left hind is more sore; front end is blocked at knees and neck; No easy motion side to side. On and off lame for 3 years.

INTERPRETATION INFORMATION (Completed by Veterinarian)

INTERPRETATION TYPE: Full Enhanced Survey

DATE OF INTERPRETATION: 1/31/2014

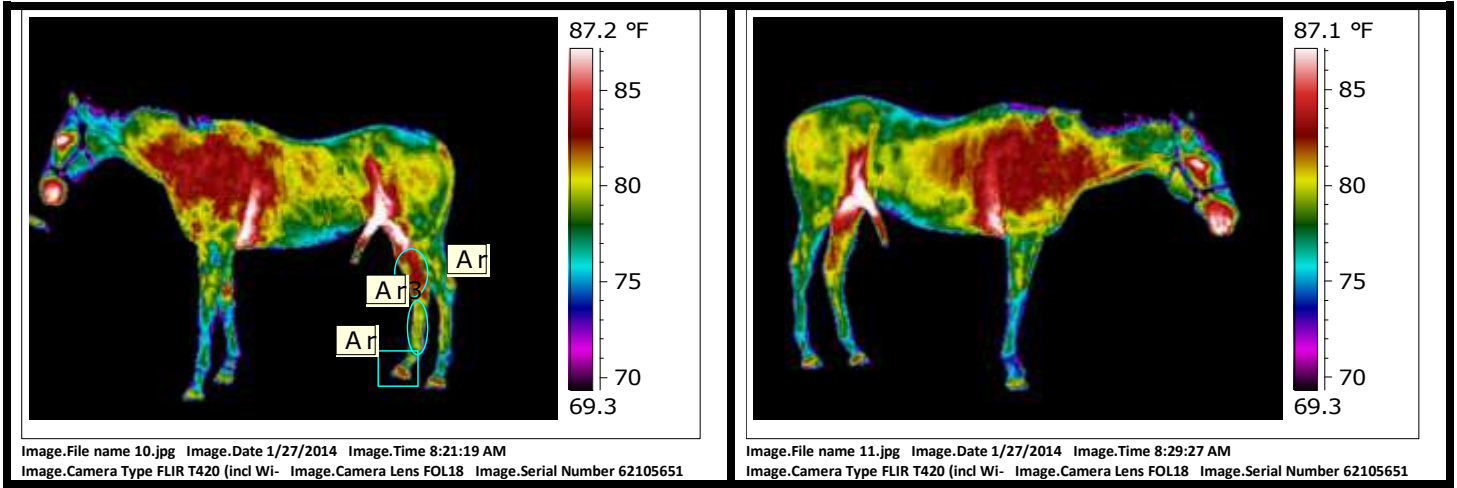
REVIEWING VETERINARIAN: Dr. Debra K Tibbitts



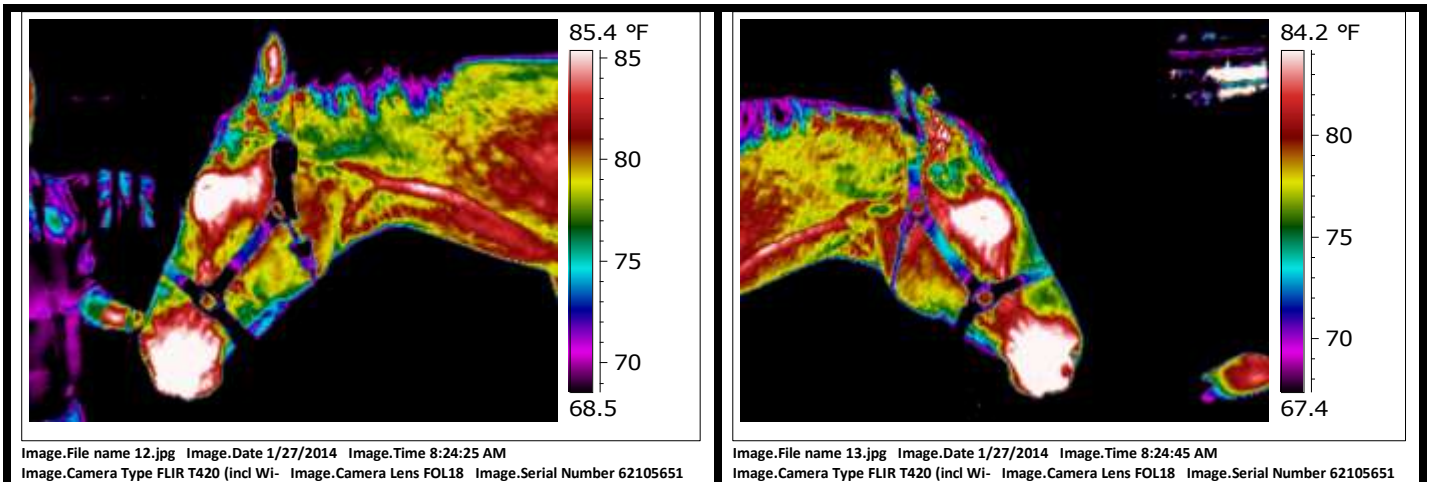
PATIENT: Zane

THERMOGRAPHY DATE: January 27., 2013

IMAGING TIME: 8:30 am



Lateral views are mostly symmetrical though there is heat greater in both shoulders and lower cervical area possible due to off-loading of hind end? There is a slight asymmetry in the medial gaskin and cannon with heat greater on the right. The right hind foot also has greater heat at the heel and medial aspect. This can be a reflection of off-loading of the left hind, primary inflammation of the gaskin area, and/or inflammation/imbalance in the right hind foot.



NSF: No Significant Findings

PATIENT: Zane

THERMOGRAPHY DATE: January 27., 2013

IMAGING TIME: 8:30 am

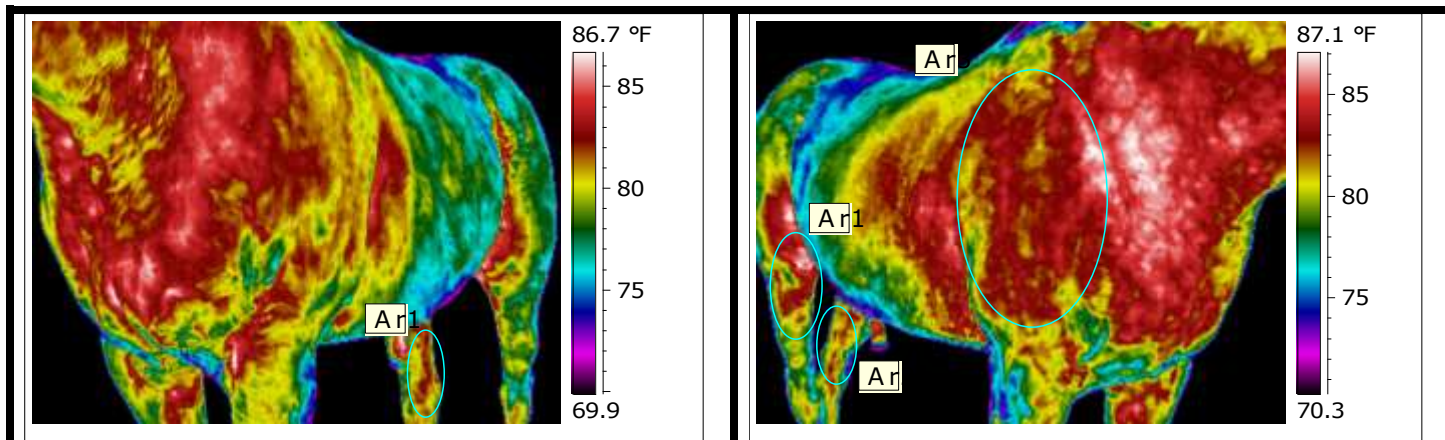


Image.File name 14.jpg Image.Date 1/27/2014 Image.Time 8:24:14 AM
Image.Camera Type FLIR T420 (incl Wi- Image.Camera Lens FOL18 Image.Serial Number 62105651

Image.File name 15.jpg Image.Date 1/27/2014 Image.Time 8:25:08 AM
Image.Camera Type FLIR T420 (incl Wi- Image.Camera Lens FOL18 Image.Serial Number 62105651

Some asymmetry in the shoulder area with heat greater on the right side. This may indicate primary inflammation or off-loading of other limb. Palpation and gait/posture analysis recommended. There is also increased heat both medial hocks which may indicate tarsitis. Gait analysis and flexion testing recommended with radiographs possibly warranted based on flexion test results. The right stifle area has greater heat than the left which may indicate strain or gonitis. Palpation checking for effusion around the joint as well as stifle stress tests is suggested for further evaluation.

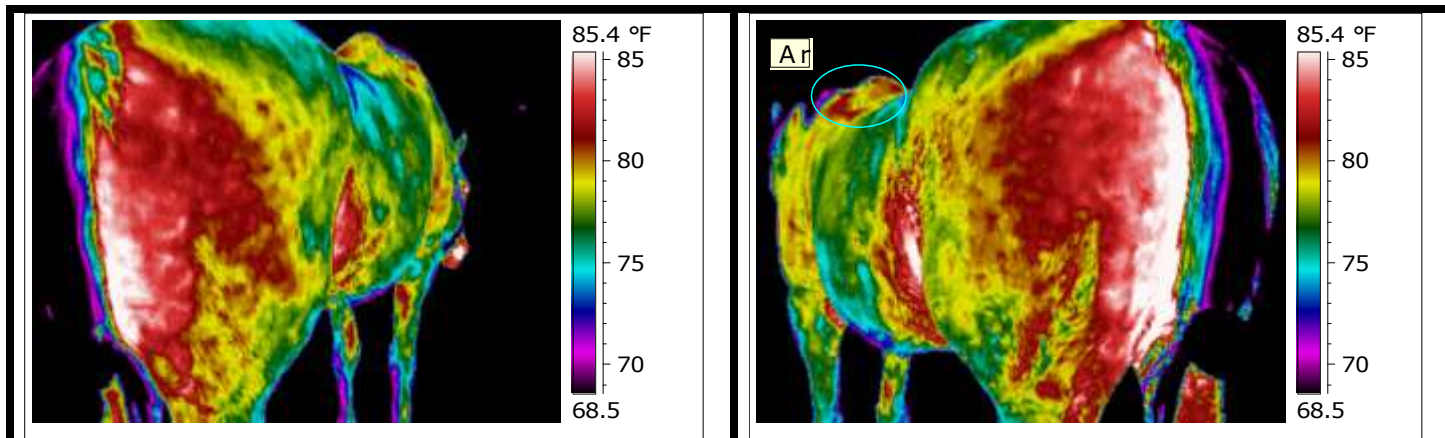


Image.File name 16.jpg Image.Date 1/27/2014 Image.Time 8:31:36 AM
Image.Camera Type FLIR T420 (incl Wi- Image.Camera Lens FOL18 Image.Serial Number 62105651

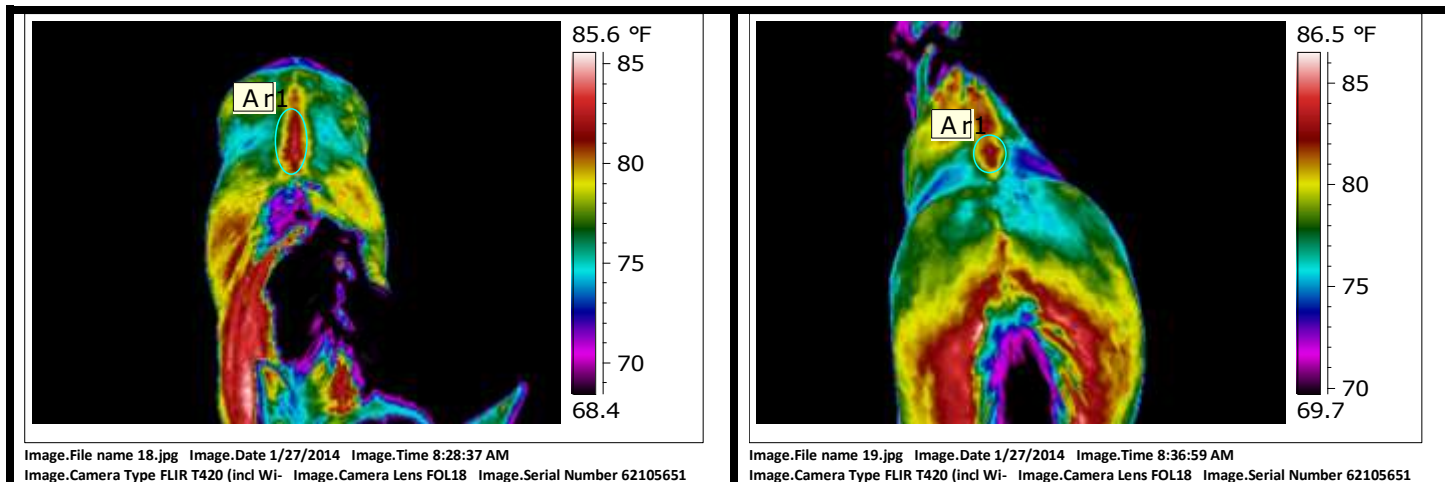
Image.File name 17.jpg Image.Date 1/27/2014 Image.Time 8:31:48 AM
Image.Camera Type FLIR T420 (incl Wi- Image.Camera Lens FOL18 Image.Serial Number 62105651

Light artifact again is present affecting left hind quarters and right withers. There is some asymmetry at the withers with heat greater on the left. This may be due to muscular imbalance, saddle fit issues or chiropractic lesions. Palpation and motion palpation of the area recommended.

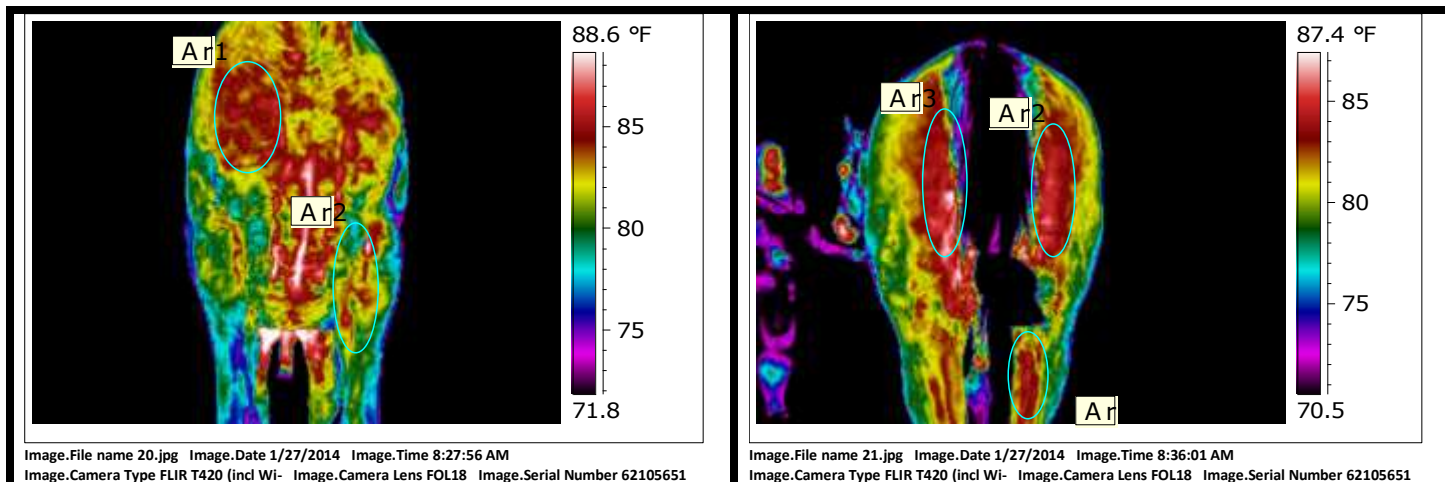
PATIENT: Zane

THERMOGRAPHY DATE: January 27., 2013

IMAGING TIME: 8:30 am



Light artifact appears to be causing the asymmetry over the gluteal muscles and shoulders in each view to be different. There is increased heat in the thoracolumbar spine with an area of extension laterally at the thoracolumbar junction area which may indicate kissing spines. Motion palpation of the area recommended checking for mobility of the spine. Radiographs of the area may be warranted to rule out kissing spines.



View 21 has light artifact on the left side. Asymmetry in the chest with heat greater on the right side. Palpation recommended ruling out primary inflammation. The left forearm has greater heat than the right which may be primary or due to off-loading. Palpation, motion palpation comparing mobility of the shoulder and elbow, along with gait analysis recommended ruling out musculoskeletal inflammation and chiropractic lesions. There is increased heat in the both hamstrings but the right hind has greater heat hamstrings and gaskin. There may be off-loading of the left hind or primary inflammation in the right hind. Muscle strain suggested possibly due to lower limb joint inflammation causing over-working of the hamstring. Gait analysis and palpation of the musculature recommended.

PATIENT: Zane

THERMOGRAPHY DATE: January 27., 2013

IMAGING TIME: 8:30 am

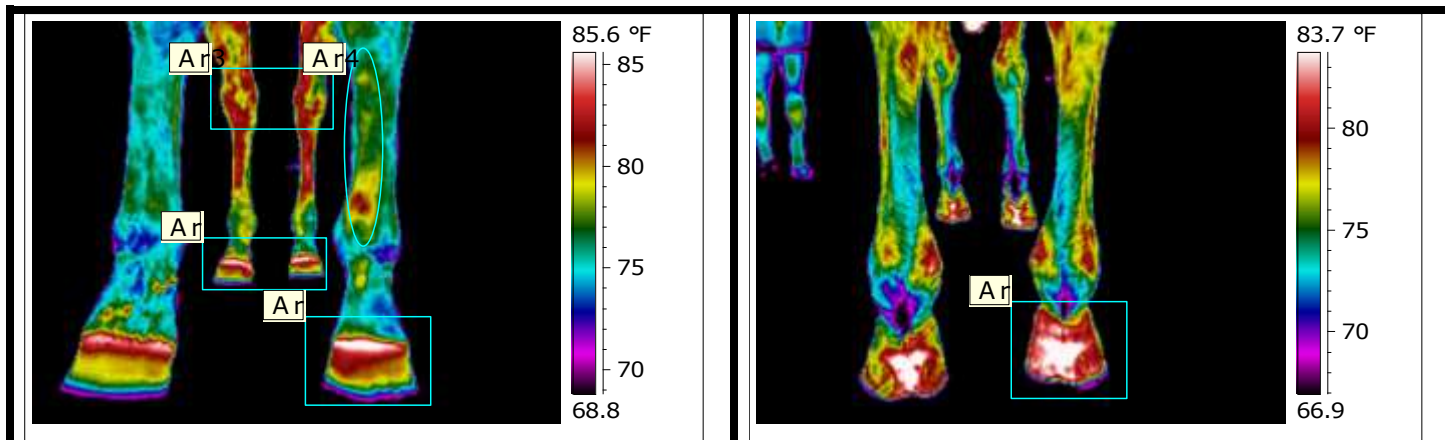


Image.File name 22.jpg Image.Date 1/27/2014 Image.Time 8:27:08 AM
Image.Camera Type FLIR T420 (incl Wi- Image.Camera Lens FOL18 Image.Serial Number 62105651

Image.File name 23.jpg Image.Date 1/27/2014 Image.Time 8:35:21 AM
Image.Camera Type FLIR T420 (incl Wi- Image.Camera Lens FOL18 Image.Serial Number 62105651

Uneven pressure along the coronary band of the left front and both hind feet with increased heat medially and toward the heel on the right hind. Hoof imbalances and/or uneven limb loading present. There is strain in the left front medially up the cannon. Image 23 shows right hind heel has much greater heat than the left hind. This may indicate primary inflammation in the foot or off-loading of the left hind. There is increased heat both hocks which may indicate tarsitis. Gait analysis along with flexion tests suggested and possibly radiographs based on flexion test results for further evaluation.

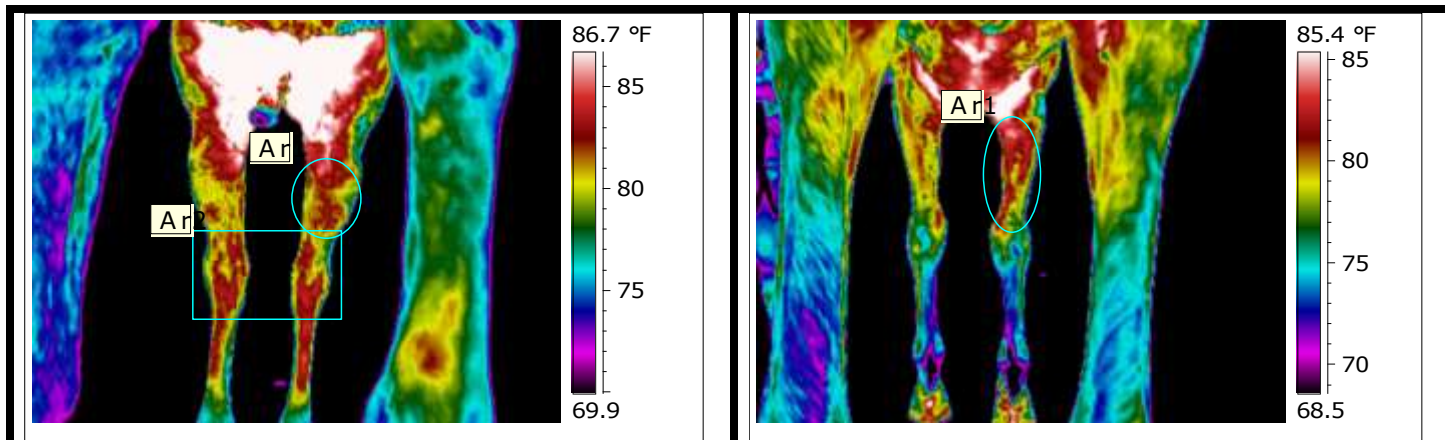


Image.File name 24.jpg Image.Date 1/27/2014 Image.Time 8:27:46 AM
Image.Camera Type FLIR T420 (incl Wi- Image.Camera Lens FOL18 Image.Serial Number 62105651

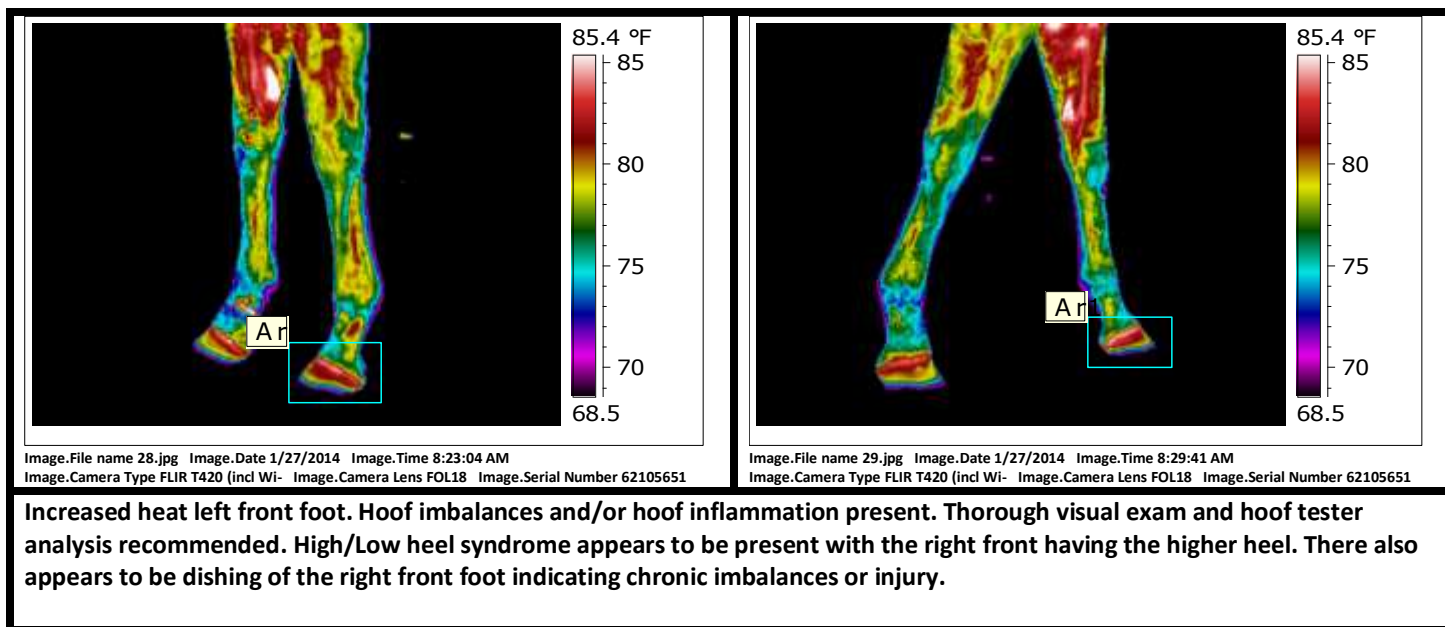
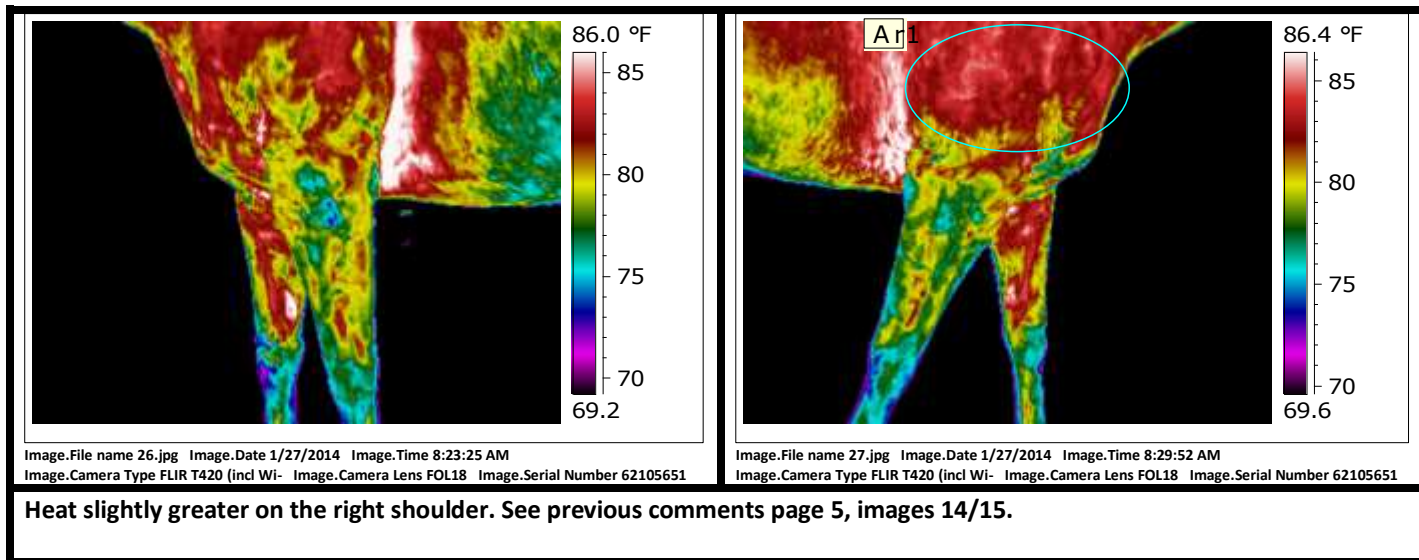
Image.File name 25.jpg Image.Date 1/27/2014 Image.Time 8:35:39 AM
Image.Camera Type FLIR T420 (incl Wi- Image.Camera Lens FOL18 Image.Serial Number 62105651

Asymmetry in the gaskins with heat greater on the left which may be an extension from the hock or primary to the gaskin. Palpation suggested. Both hocks have some increased heat. See previous comments above. There is asymmetry in the forearm, with heat greater on the right. Primary inflammation or off-loading of other limb may be present. Palpation and posture/gait analysis recommended for further evaluation.

PATIENT: Zane

THERMOGRAPHY DATE: January 27., 2013

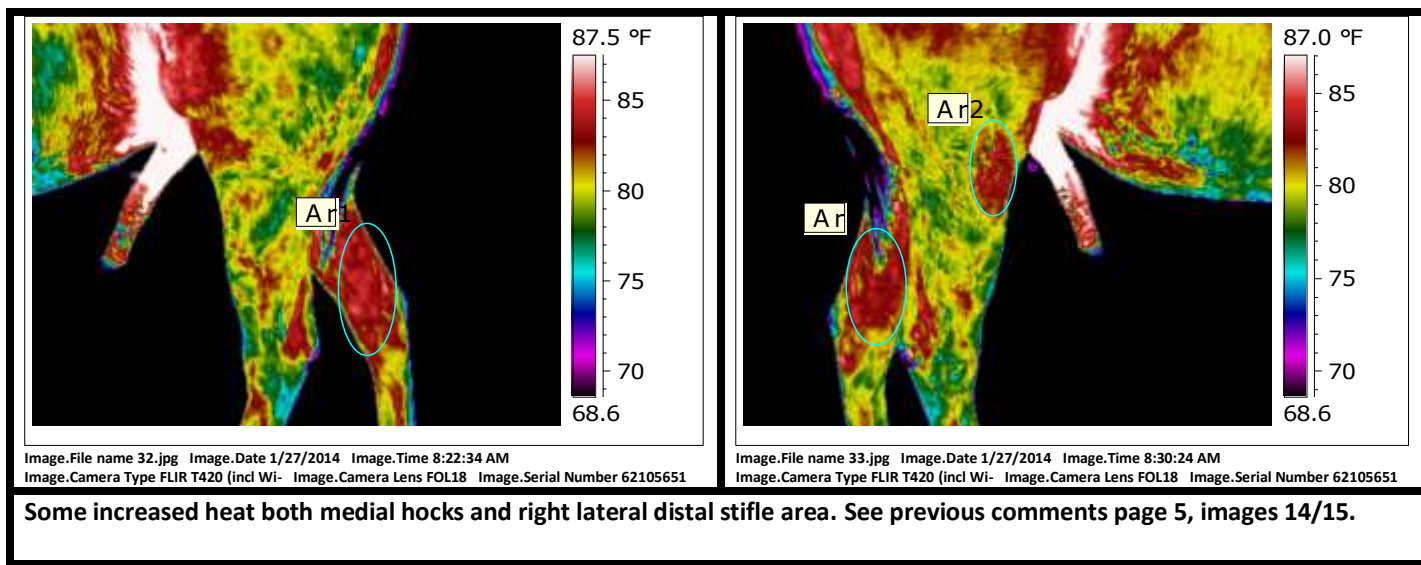
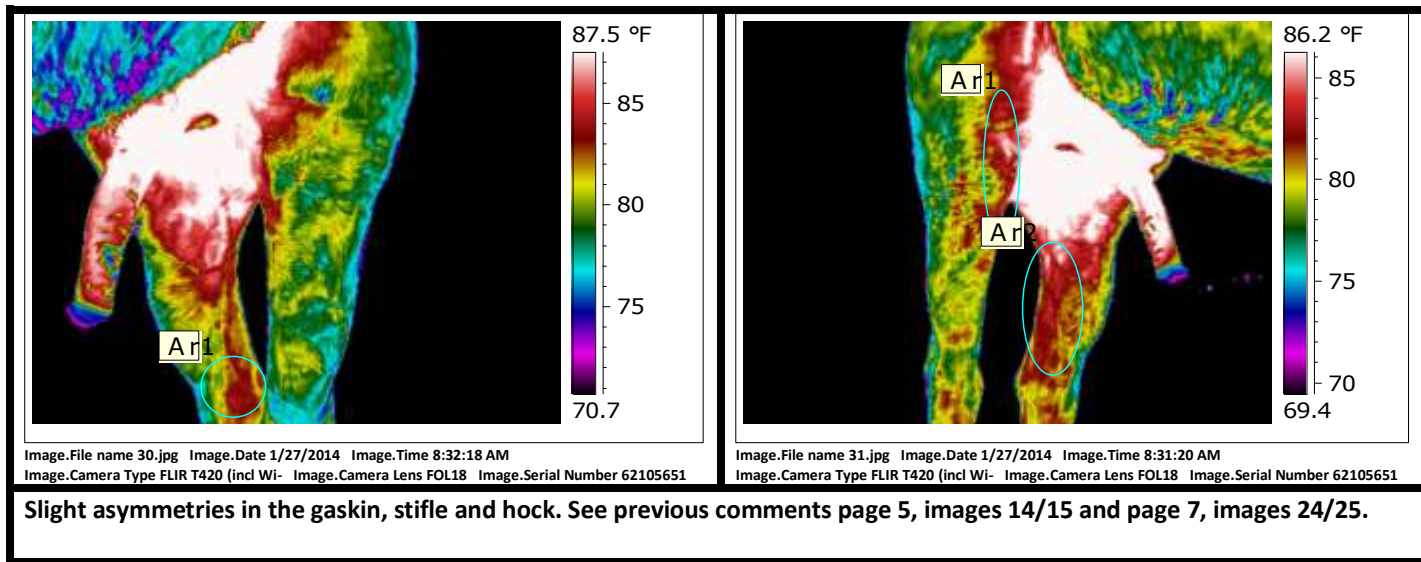
IMAGING TIME: 8:30 am



PATIENT: Zane

THERMOGRAPHY DATE: January 27., 2013

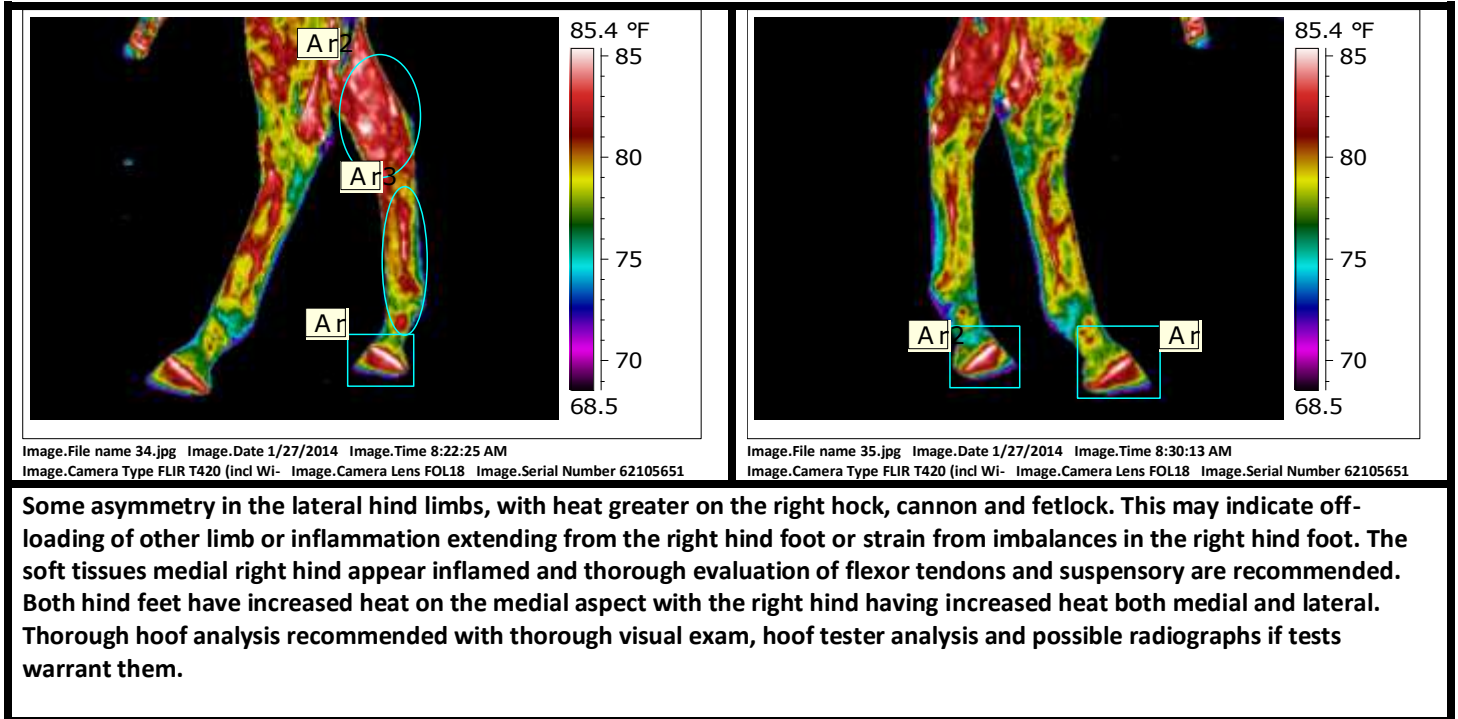
IMAGING TIME: 8:30 am



PATIENT: Zane

THERMOGRAPHY DATE: January 27., 2013

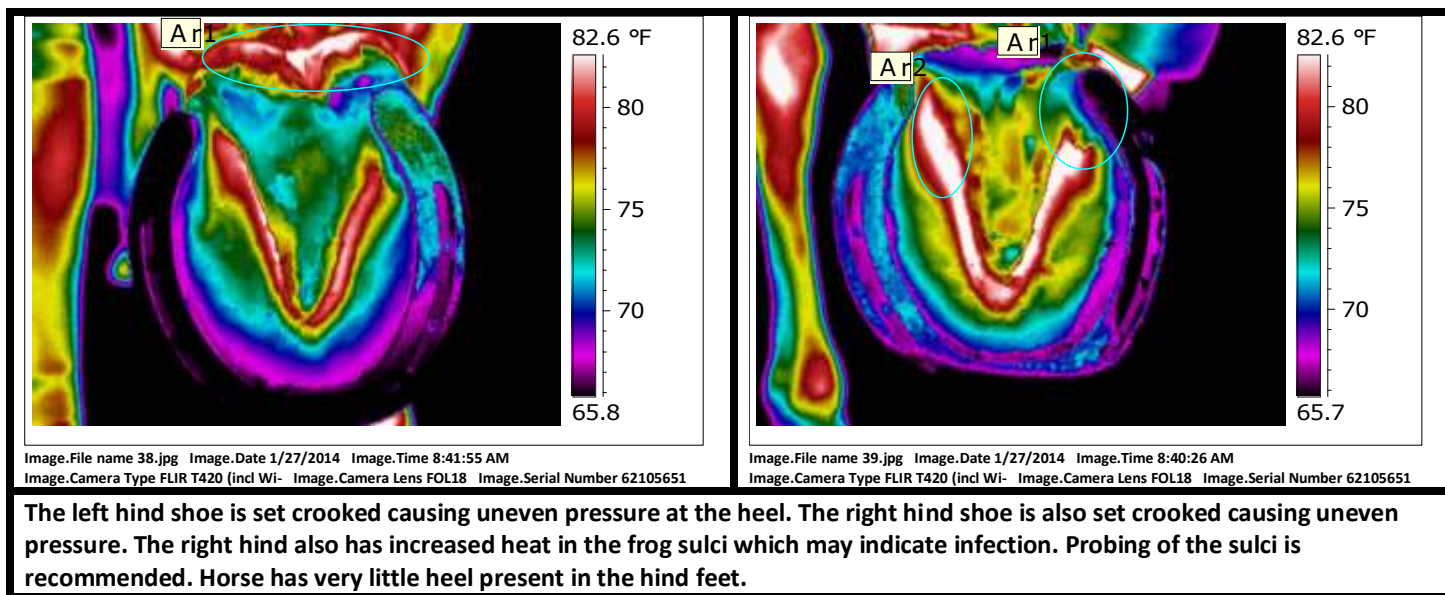
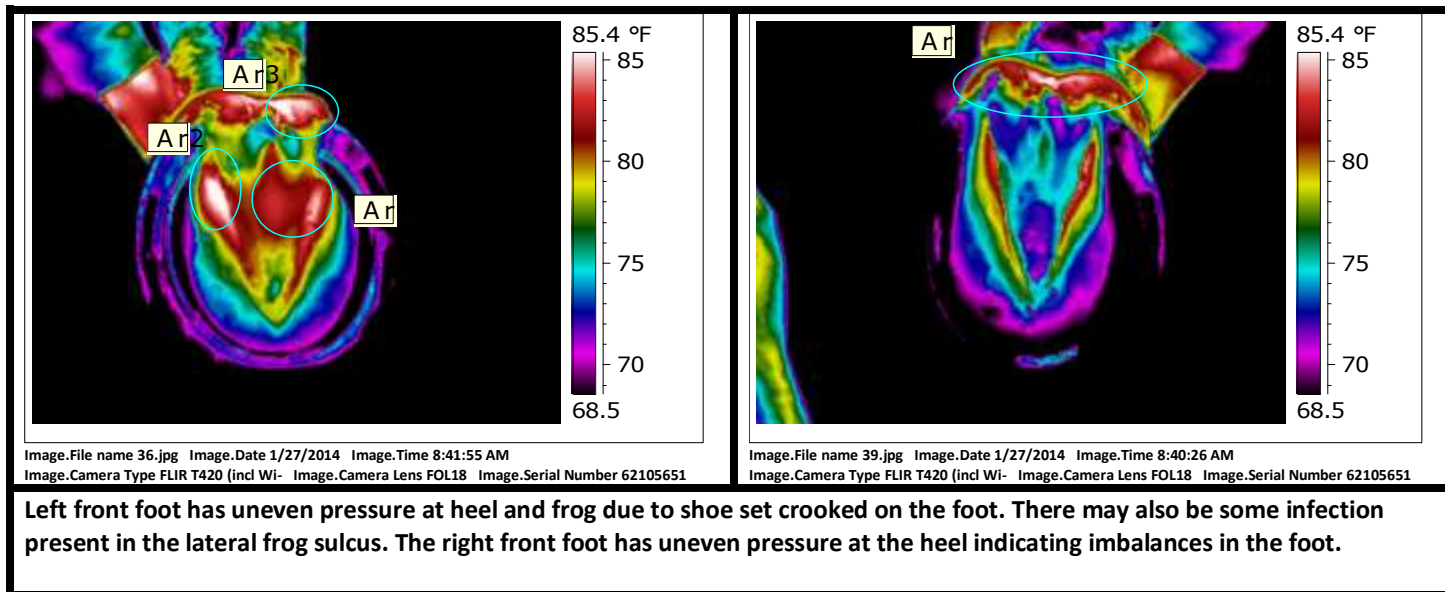
IMAGING TIME: 8:30 am



PATIENT: Zane

THERMOGRAPHY DATE: January 27., 2013

IMAGING TIME: 8:30 am



PATIENT: Zane

THERMOGRAPHY DATE: January 27., 2013

IMAGING TIME: 8:30 am

SUMMARY AND RECOMMENDATIONS: This is a follow-up scan of Zane to the one done in April 2012. And a lot of the same issues are present. Light artifact is present in several of the views but still very useful information gained from the images presented.

All four feet still have imbalances present and still likely the main source of continued lameness in Zane. Secondarily causing inflammation in the joints and soft tissue due to continued strain on the limbs. The right hind still having the greatest inflammation in the foot and particularly the heel. High/Low heel syndrome is still present in the front feet and lack of heel in the rear. The hoof imbalances and offset shoes must be corrected to have any hope of present or continued soundness. Radiographs may be warranted ruling out boney changes from chronic hoof imbalances. The secondary issues still need to be addressed as there is now increased inflammation in the joints and soft tissue versus previous scan.

Both hocks show evidence of tarsitis warranting gait analysis, flexion tests and likely radiographs for further evaluation. The right stifle also appears to have some inflammation. Palpation of the joint and ligaments along with stress tests recommended. There is increased heat in the hamstrings and the right gaskin possibly due to muscular strain due to lack of hock flexion causing over-use of hamstrings.

The spine still has inflammation along with slight inflammation in the wither area suggesting saddle fit issues and the thoracolumbar junction may have kissing spines present. Thorough veterinary chiropractic evaluation and saddle fit analysis recommended.

The chest and forearm still have same patterning of right chest and left forearm having increased heat still likely due to hoof imbalances causing uneven limb loading and uneven stress on muscles. There is increased heat in the left front foot medially as well as the soft tissue and cannon medially. Palpation recommended. Overall there is increased heat both sides in the forequarters suggesting off-loading of the hind limbs creating chronic muscular strain of the shoulders and lower neck. Once feet are corrected body work consisting of soft tissue and veterinary chiropractic sessions are highly recommended along with a rehabilitation program to correct muscular imbalances.

A follow-up scan in 3 months after corrections are made is highly recommended.

Thank You!

Reviewing Veterinarian: Debra K Tibbitts, DVM, CVCP, EDO, CVA, CIT