



# Thermal Imaging Report

## Geno



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



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



### **Carlson and SoForth Thermal Imaging Services**

P.O. Box 511232 Punta Gorda, FL 33952

Phone: (941) 585-5436

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EMAIL: [equine\\_ir\\_jcarlson@yahoo.com](mailto:equine_ir_jcarlson@yahoo.com)



**PATIENT:** Geno    **THERMOGRAPHY DATE:** 2/22/14    **IMAGING TIME:** 7pm-8pm

March 5, 2014

Kaci St. John  
6270 Staley Farms Road  
Ft. Myers FL, 33905

Dear Kaci:

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

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,

*Jake Carlson*

Jake Carlson, *Certified Infrared Thermographer*  
Carlson and SoForth Thermal Imaging Services



Phone: (941) 585-5436  
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## EQUINE CLIENT INFORMATION

**CLIENT NAME:** Kaci St. John  
**MAILING ADDRESS:** 6270 Staley Farms Rd. Ft. Myers, FL 33905  
**CLIENT EMAIL:** purplestar@comcast.net  
**CLIENT PHONE:** 941-421-9657

**HORSE AGE:** 14  
**HORSE BREED:** Zangersheide  
**HORSE PRIMARY USE:** Jumper

## SURVEY INFORMATION

**THERMOGRAPHER:** Jacob Carlson  
**INFRARED CERTIFICATION #:** 116  
**INFRARED CAMERA MODEL:**T420      **CAMERA SERIAL NUMBER:** 62101328  
**NUMBER OF THERMAL IMAGES SUBMITTED:** 29

**WEATHER:** calm  
**APPROXIMATE TEMPERATURE:** 77 °F  
**IMAGING LOCATION:** Covered area

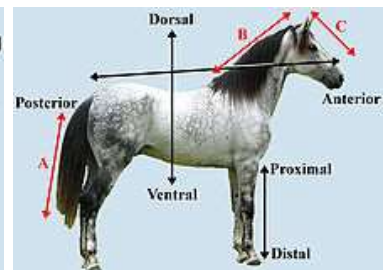
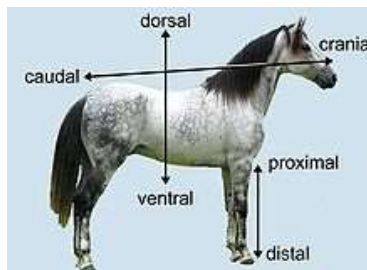
**EXERCISED PRIOR:** Yes    **HOW LONG:** 15min    **WHEN:** 6pm  
**TYPE OF EXERCISE:** walked

**BOOTS OR WRAPS ON HORSE?** Yes, within 12 hours      **HOURS SINCE:** 9-11  
**FLYSPRAY OR LINIMENTS APPLIED WITHIN 24 HOURS:** No

**REASON FOR SCAN or HISTORY RECEIVED:** Geno has had injections at SI for discomfort every 18 months or so since current owner has had him. Also, he has had shots in the hocks for joint and muscle maintenance. Geno last visited his vet, Dr. Martin, in December for his blood work. He last saw his farrier five weeks prior to scan. He competed earlier in the day from approx. 8am-10am. This is a general diagnostic full body scan.

## INTERPRETATION INFORMATION (Completed by Veterinarian)

**INTERPRETATION TYPE:** Full Enhanced Survey  
**DATE OF INTERPRETATION:** 3/4/2014  
**REVIEWING VETERINARIAN:** Dr. Debra Tibbitts



PATIENT: Geno THERMOGRAPHY DATE: 2/22/14 IMAGING TIME: 7pm-8pm

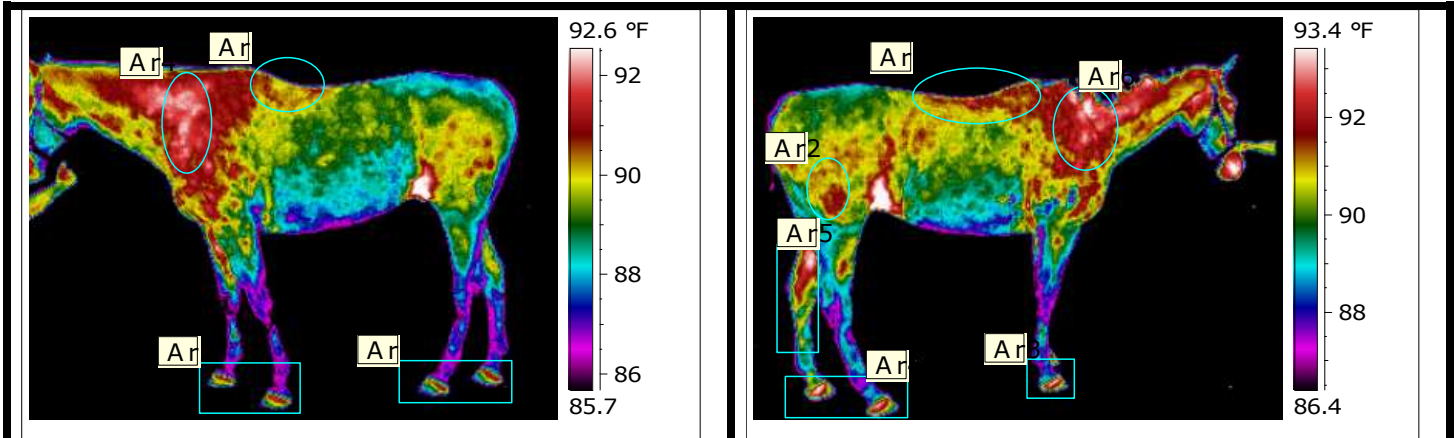


Image.File name 10.jpg Image.Date 2/22/2014 Image.Time 8:15:07 PM  
 Image.Camera Type FLIR T420 (incl Wi- Image.Camera Lens FOL10 Image.Serial Number 62101328

Image.File name 11.jpg Image.Date 2/22/2014 Image.Time 8:34:30 PM  
 Image.Camera Type FLIR T420 (incl Wi- Image.Camera Lens FOL10 Image.Serial Number 62101328

Both sides of lower cervical/shoulder area have increased heat. Palpation recommended checking for inflammation. There is an area of increased heat along the lateral right stifle that correlates with an area of odd coloring(?) on the digital image. Increased heat at withers greater on the right side and extending along the right thoracic paraspinal muscles. There is also greater heat on the right side ribs/loin that the left indicating muscle imbalances. Chiropractic lesions and/or saddle fit issues likely present. Thorough palpation/motion palpation and saddle fit analysis recommended for further evaluation. All four feet have increased heat indicating infection/inflammation/imbalances present.

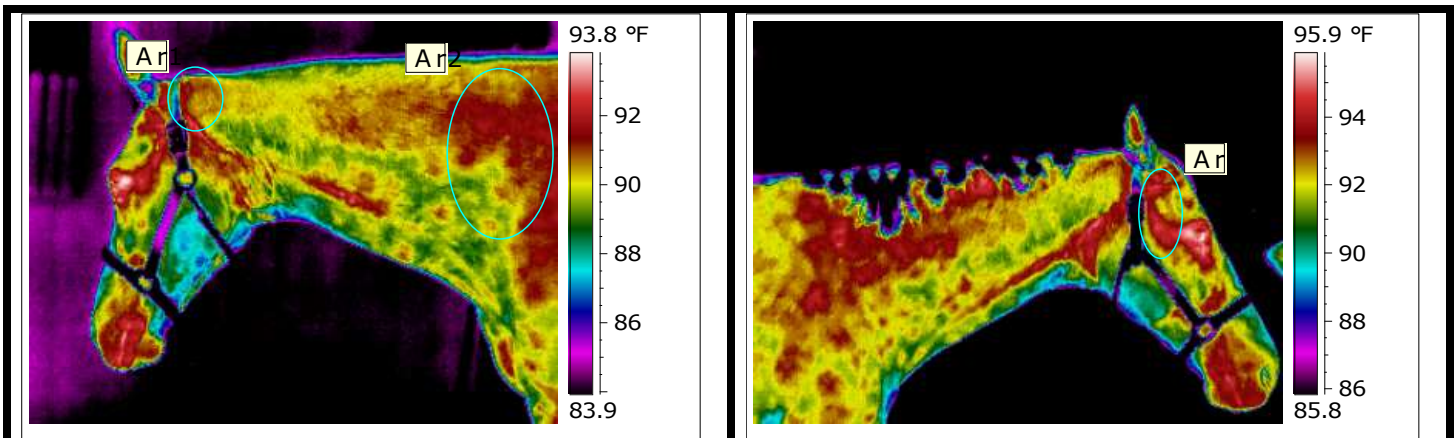
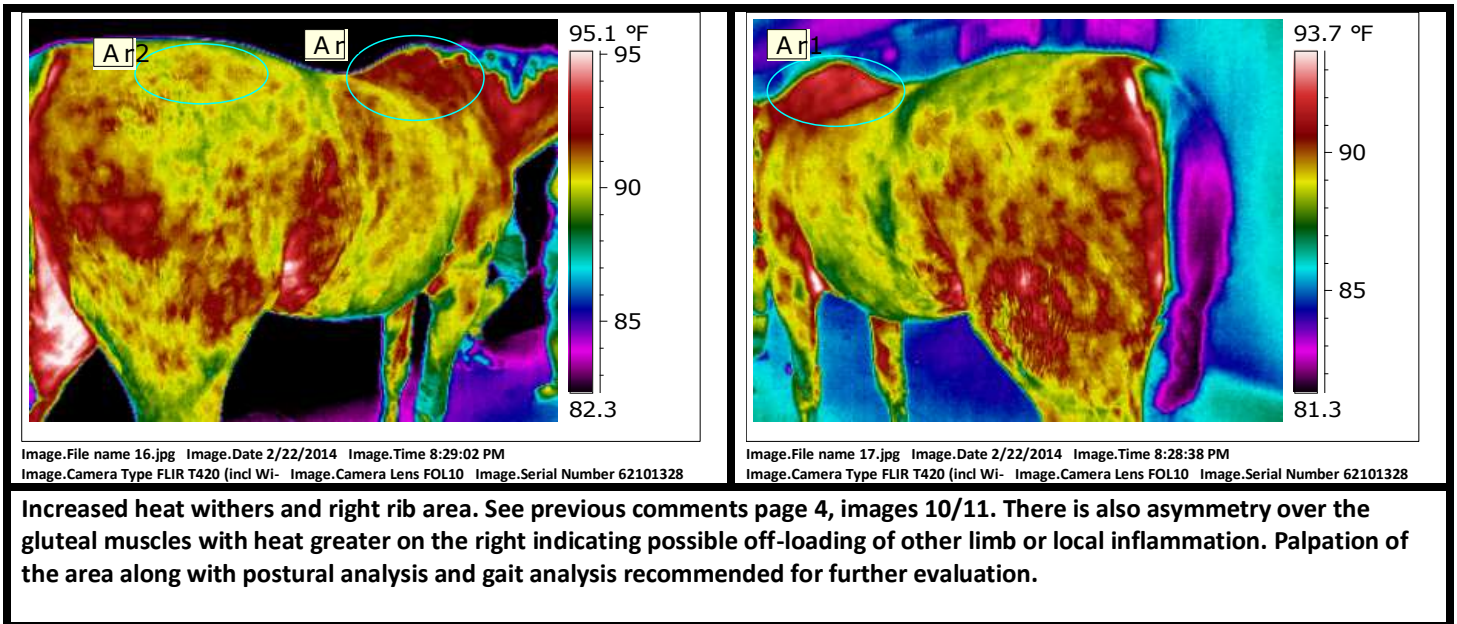
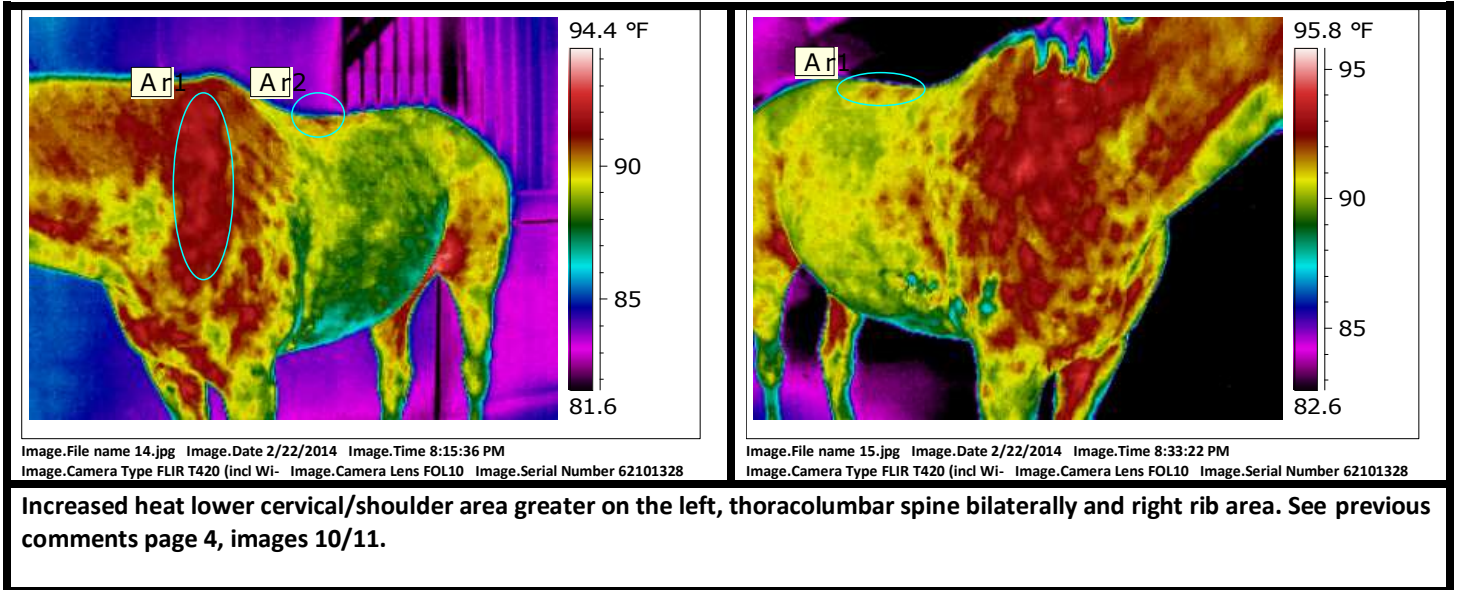


Image.File name 12.jpg Image.Date 2/22/2014 Image.Time 8:16:31 PM  
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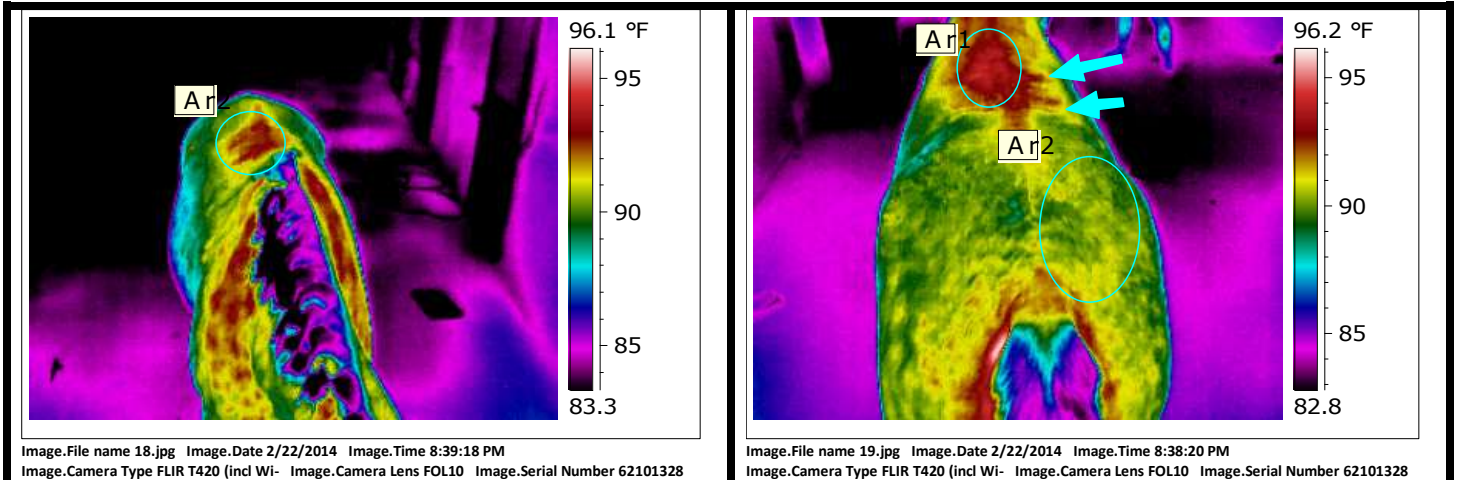
Image.File name 13.jpg Image.Date 2/22/2014 Image.Time 8:32:16 PM  
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Some asymmetry seen in area of C1 palpation and motion palpation recommended checking for chiropractic rotation. Left lower cervical area increased heat – palpation recommended checking for local inflammation. TMJ has increased heat greater on the right – local palpation recommended checking the TMJ joint and musculature for inflammation and possible jamming. Thorough oral exam via speculum also recommended ruling out dental issues as the source.

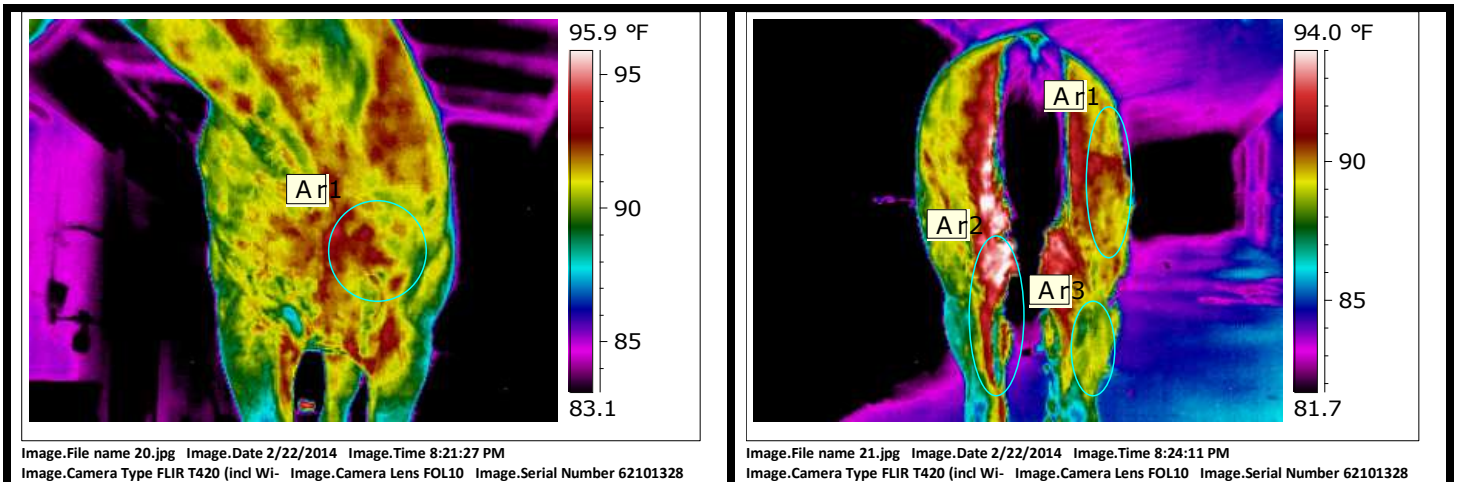
PATIENT: Geno THERMOGRAPHY DATE: 2/22/14 IMAGING TIME: 7pm-8pm



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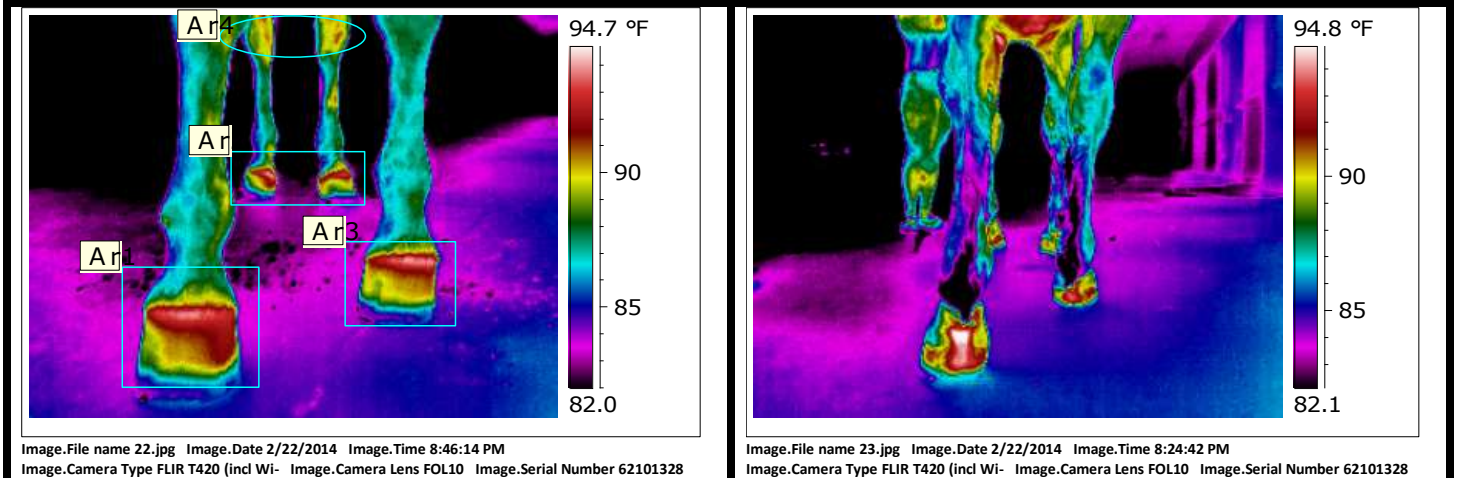


Increased heat thoracolumbar spine with extension into surrounding musculature. Veterinary chiropractic evaluation and saddle fit analysis strongly recommended for further evaluation as both chiropractic lesions and saddle fit issues are very likely present. Kissing spines are also a possibility. Asymmetry again is seen in the gluteal musculature with heat greater on the right likely indicating off-loading of other limb.

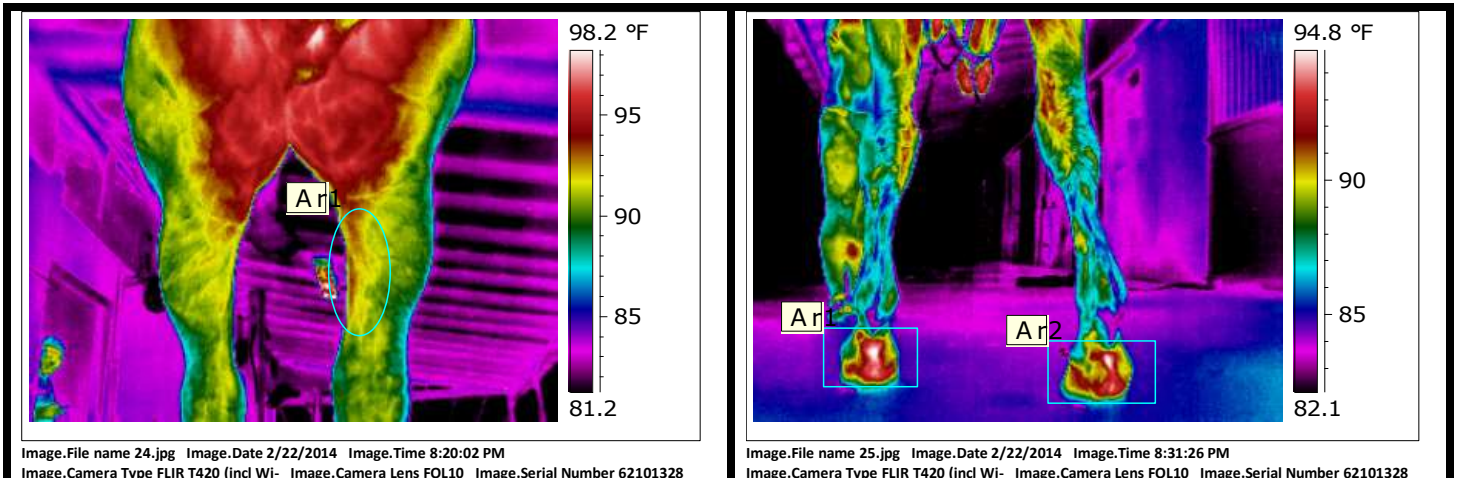


Asymmetry seen in the chest area with increased heat left chest and forearm, local inflammation or off-loading may be present. Palpation recommended. Asymmetry in the hindquarters with heat greater on the right biceps femoris and left semimembranosus/gastrocnemius muscles. This may indicate muscular strain or possible fibrotic myopathy. Lateral right gaskin also has greater heat than left likely due to off-loading of left hind. Palpation of the muscles along with gait and postural analysis recommended for further evaluation.

PATIENT: Geno THERMOGRAPHY DATE: 2/22/14 IMAGING TIME: 7pm-8pm

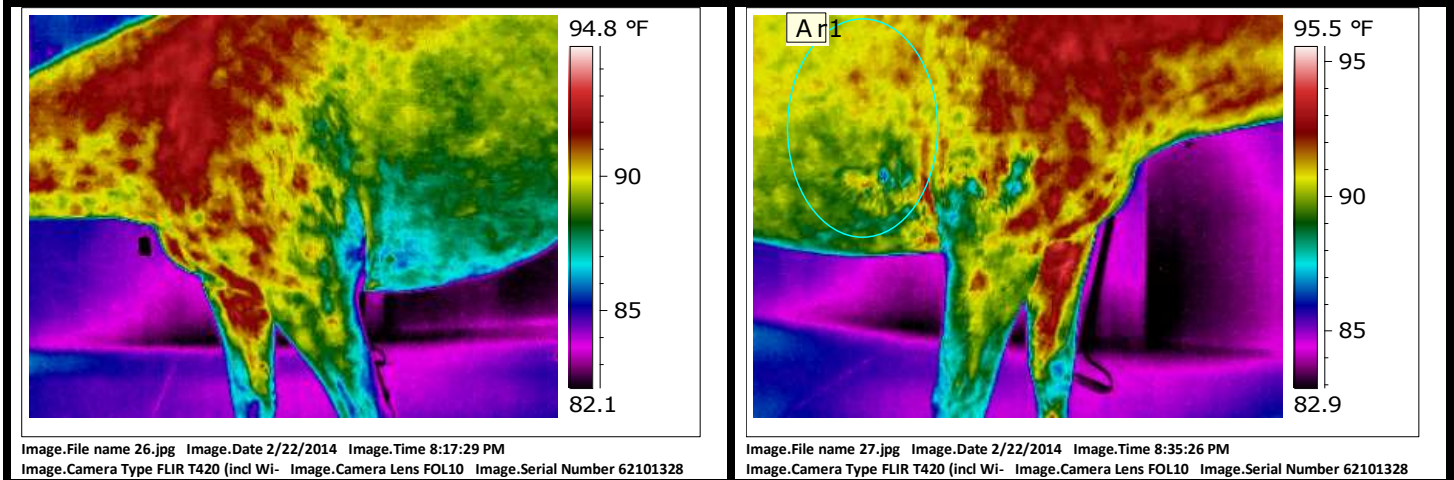


Increased heat all four feet with uneven pressure at the coronary band and uneven heat in the feet. Hoof imbalances account for part of what is seen. There may also be infection present as well as uneven loading of the feet from issues in the limbs. The inflammation extends up the soft tissue in the pasterns and cannon bones. Both hocks have increased heat, greater on the left. Image 23, lack of proper positioning precludes accurate evaluation.

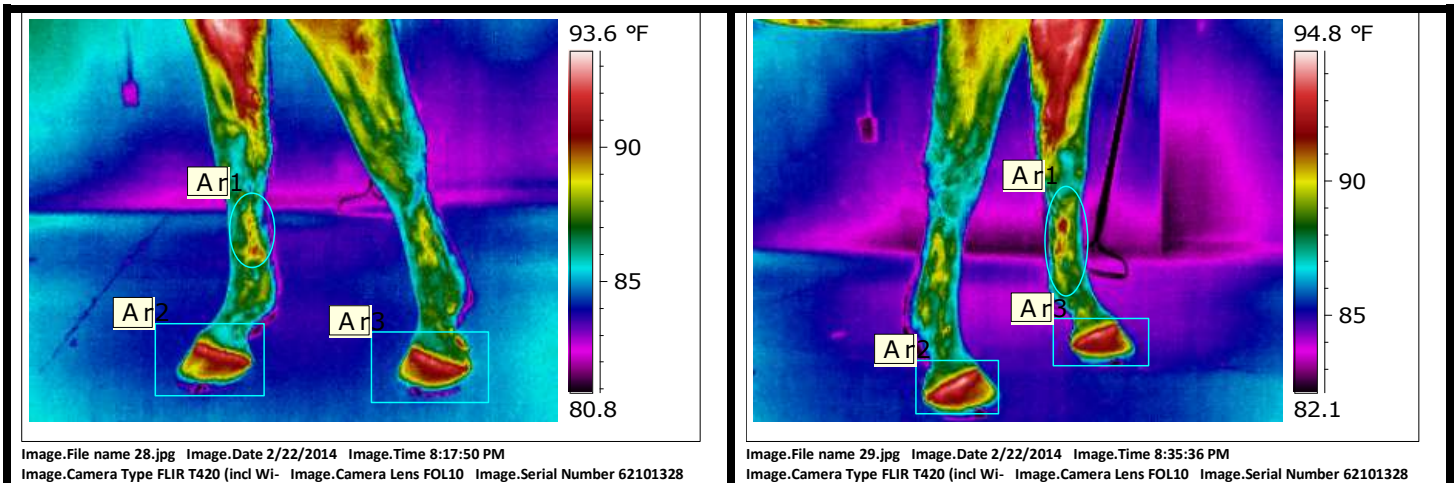


Focal views are limited. Comments are based on images provided. Inflammation again is seen on the left in the caudal gastrocnemius muscle. Increased heat in the heels likely from hoof imbalances.

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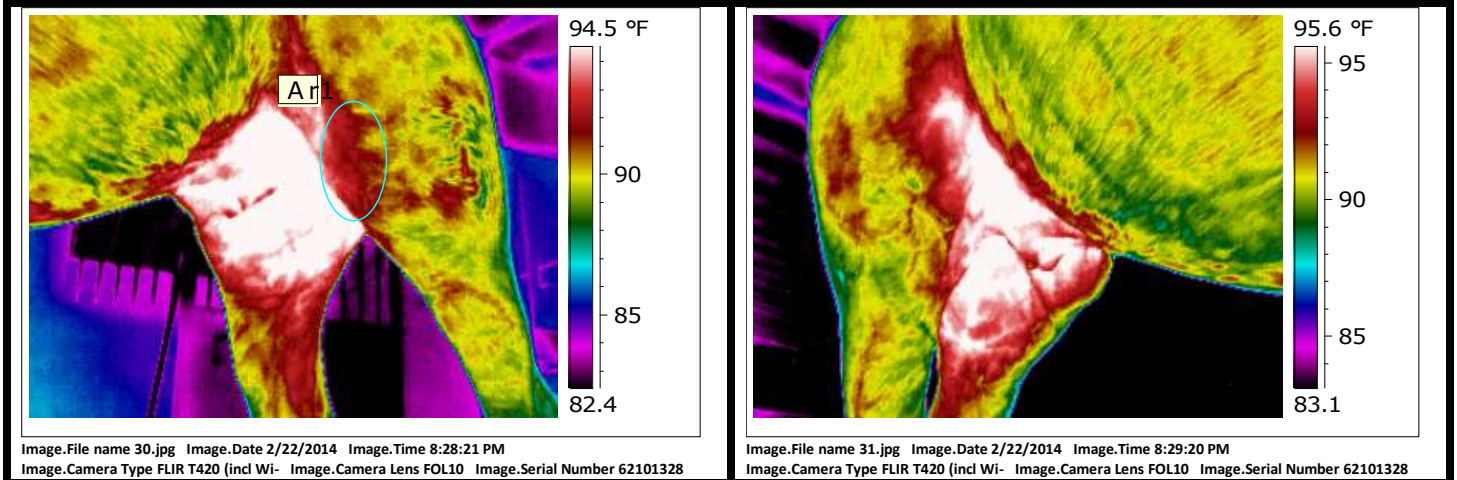
Focal view is limited, comments are based on images provided. Asymmetry in the rib area likely due to muscle imbalances/chronic off-loading of other side.



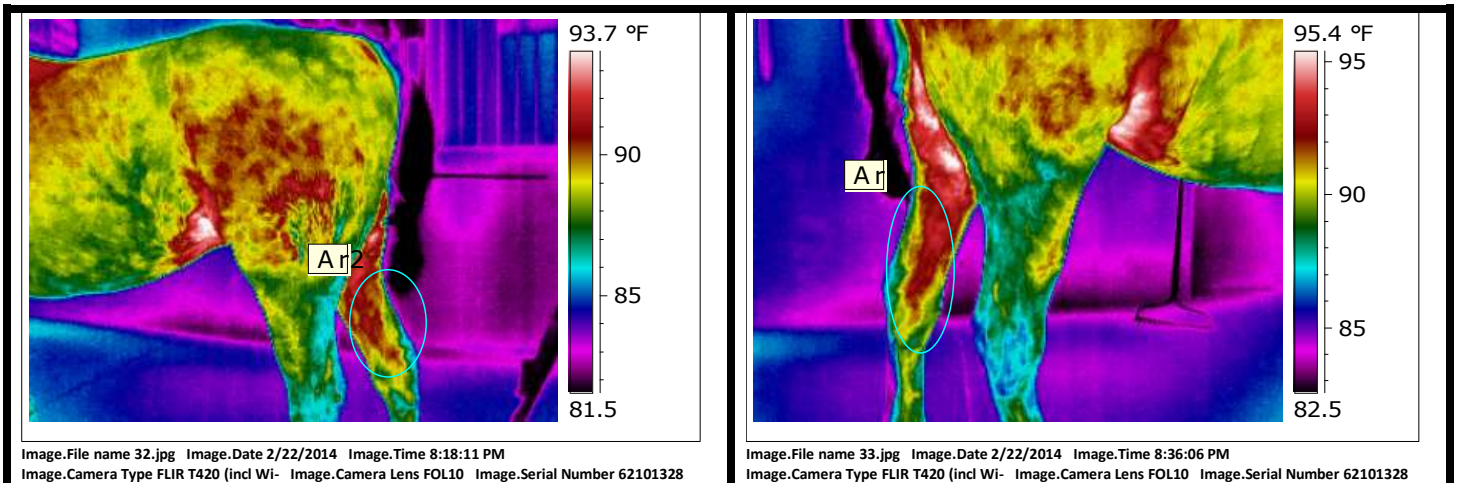
Increased heat both front feet with uneven pressure at coronary band and heat greater on the medial aspect of the feet with extension into the soft tissue.



PATIENT: Geno THERMOGRAPHY DATE: 2/22/14 IMAGING TIME: 7pm-8pm

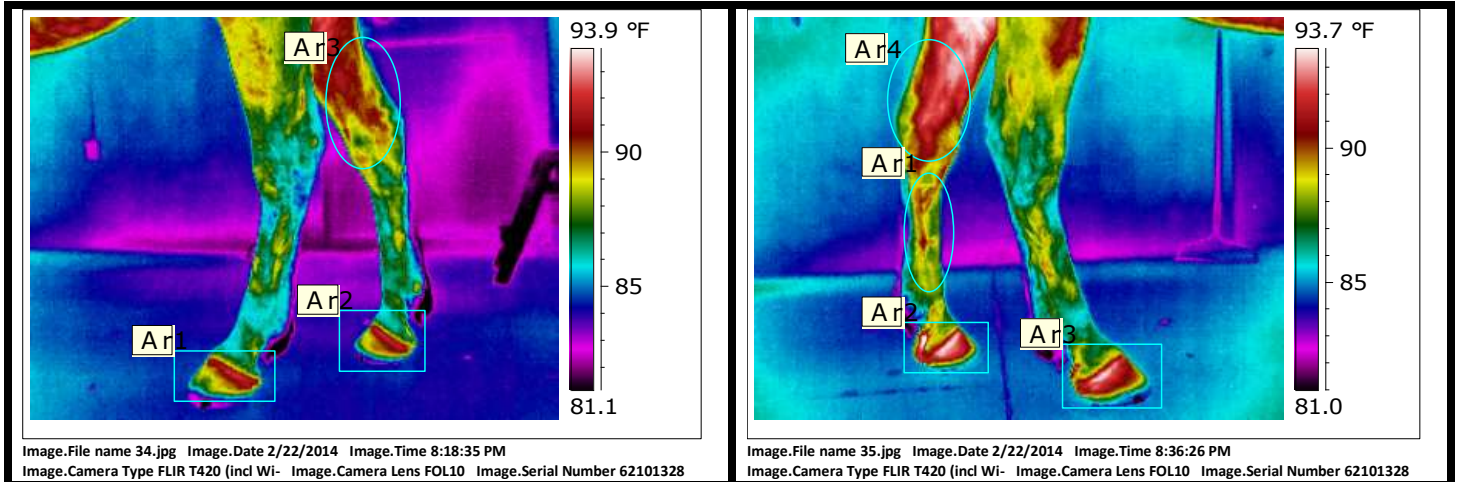


Some asymmetry in the stifle area with heat greater on the left. Palpation recommended checking for inflammation/effusion of the stifle joint and ligaments.



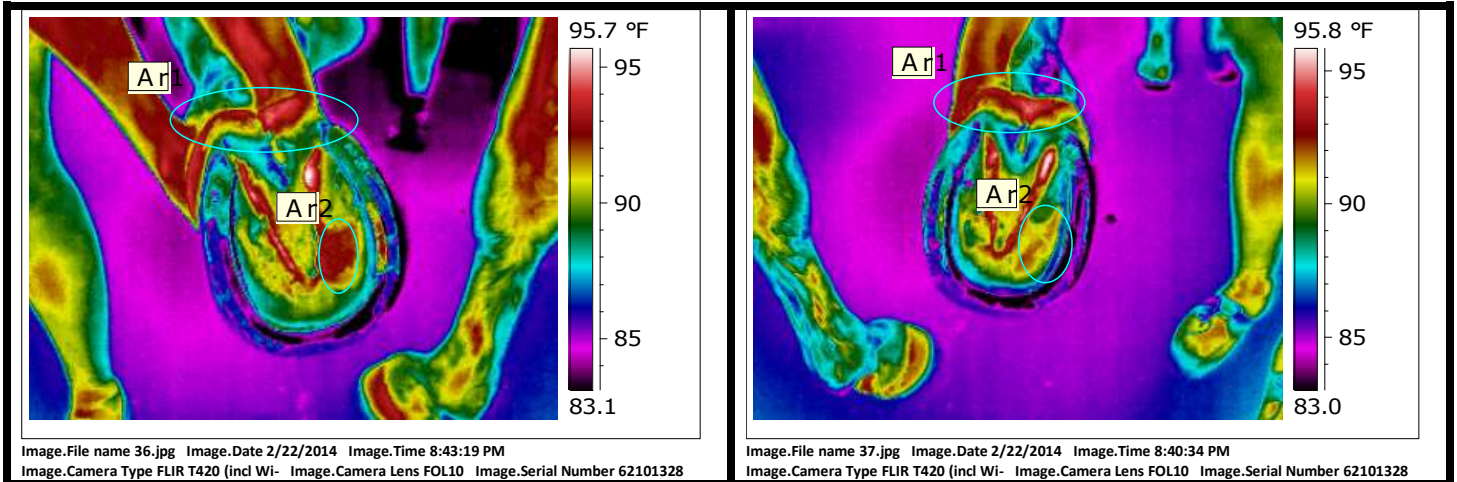
Focal view is limited, comments are based on images provided. There is increased heat both medial gaskins/hock, greater on the left. Palpation recommended checking for inflammation. Gait analysis and possible flexion tests of stifle may also be warranted.

PATIENT: Geno THERMOGRAPHY DATE: 2/22/14 IMAGING TIME: 7pm-8pm

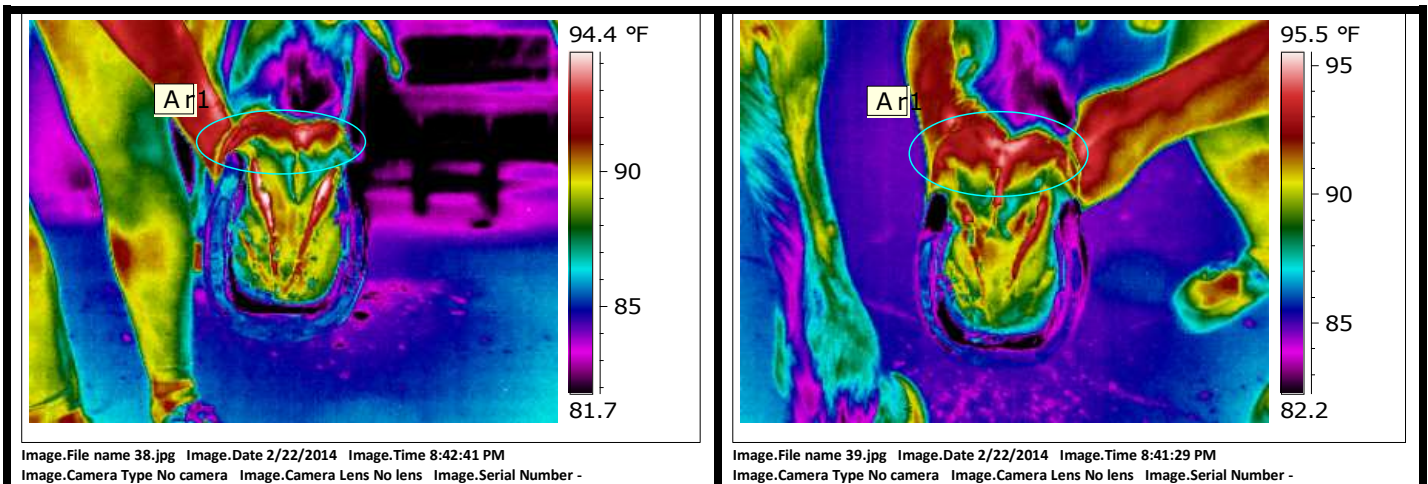


Increased heat both hind feet, see previous comments page 7, image 22. There is increased heat both medial gaskins/hocks and left hind extending into the medial flexor tendons. Gait analysis, palpation, motion palpation and flexion tests of the hock recommended for further evaluation of possible tarsitis.

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Area of focal inflammation medial toe quarter left front foot which may be due to inflammation/infection. Thorough visual evaluation, digital pulse analysis and hoof tester exam recommended. Both front feet have uneven heel pressure due to imbalances in the feet and improper heel coverage from the shoes.



Uneven pressure at the heels of both hind feet due to imbalances in the feet.



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**SUMMARY AND RECOMMENDATIONS:** Thank you for giving us the opportunity to evaluate Geno. Though several images were limited in their focal view, there is still much to be gained from the images provided.

There is increased heat at the lower cervical/shoulder area bilaterally but greater on the left side. Palpation recommended checking for inflammation due to muscular strain. Motion palpation of the scapula also recommended checking for proper mobility. There is increased heat in the withers, thoracic spine and thoracolumbar junction extending into the paraspinal musculature. Chiropractic lesions and saddle fit issues are likely present. There is also the possibility of kissing spines. Thorough veterinary chiropractic evaluation and saddle fit analysis strongly recommended.

Some asymmetry seen in area of C1. Palpation and motion palpation recommended checking for chiropractic rotation. TMJ has increased heat greater on the right – local palpation recommended checking the TMJ joint and musculature for inflammation and possible jamming. Thorough oral exam via speculum also recommended ruling out dental issues as the source.

There is asymmetry along the ribs indicating muscular imbalances due to off-loading of left hind limb. There is also asymmetry over the gluteal muscles with heat greater on the right also indicating off-loading of left hind limb. Asymmetry in the hindquarters with heat greater on the right biceps femoris and left semimembranosus/gastrocnemius muscles. Lateral right gaskin also has greater heat than left likely due to off-loading of left hind. Palpation of the area along with postural analysis and gait analysis recommended for further evaluation.

Some asymmetry in the stifle area with heat greater on the left. Palpation recommended checking for inflammation/effusion of the stifle joint and ligaments. There is also increased heat in the medial hocks, greater on the left hind. Palpation, gait analysis, flexion test and possible radiographs based on test results checking for possible tarsitis. The left hind also has greater heat in the semimembranosus and medial gaskin. Palpation recommended checking for muscular strain and ruling out fibrotic myopathy.

Increased heat all four feet with uneven pressure at the coronary band and uneven heat in the feet. Hoof imbalances account for part of what is seen. There may also be infection present as well as uneven loading of the feet from issues in the limbs. The inflammation extends up the soft tissue in the pasterns and cannon bones. Geno appears past due for shoeing. There is hi/low heel syndrome present with the Right Front and Left Hind being the high heels. The heels do not have proper coverage by the shoes. The left front foot has an area of increased heat medial toe quarter that could possibly indicate an abscess and should be thoroughly examined. It is imperative to Geno's present and future soundness to balance his feet and have proper shoe placement. More information can be obtained by a farrier consultation with our farrier consultant, Mike DeLeonardo, CJF, APF of DeLeonardo Farrier services. Call 831-442-9154 to set up and appointment.



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**Thank You!**

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

