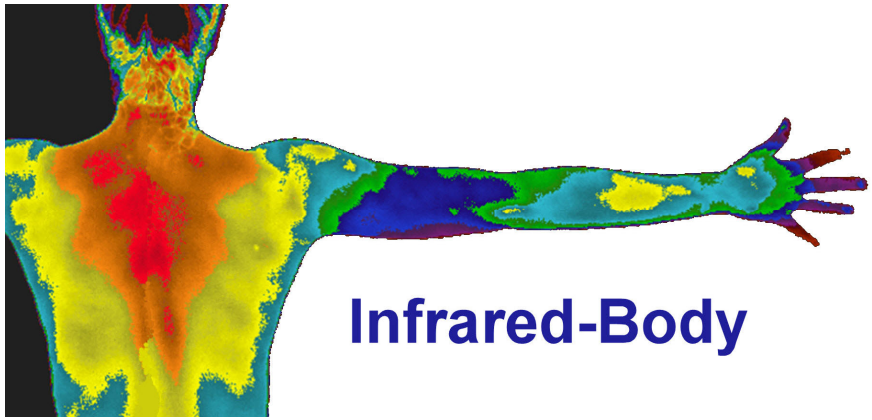
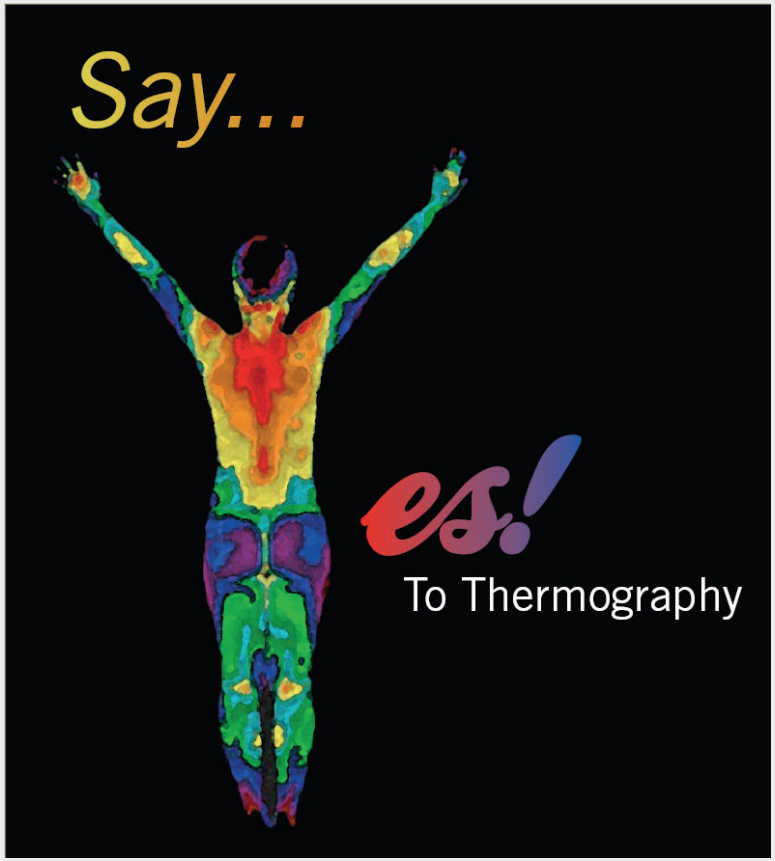



# Basic Thermal Physiology

# Your Instructor

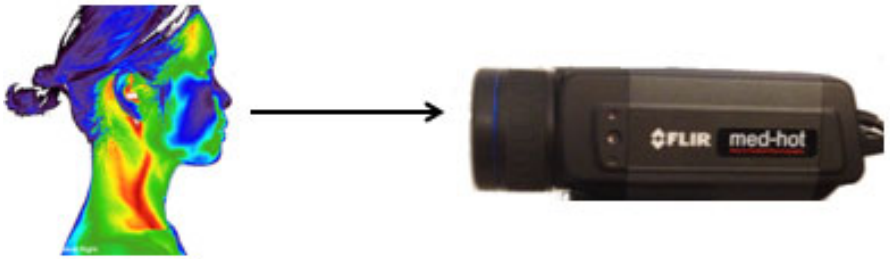
Carol Chandler, Dr. of Oriental Medicine

# Why say “Yes” Thermography?

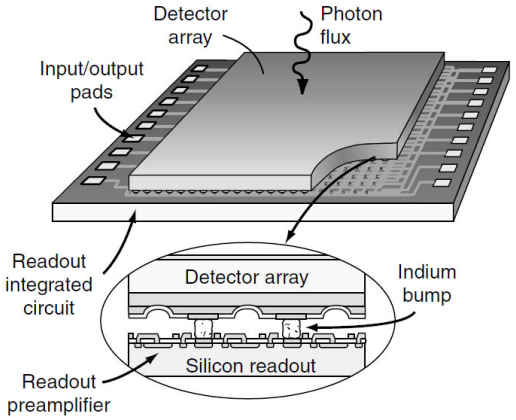


# An Infrared Detector (Camera) is NOT a Thermometer

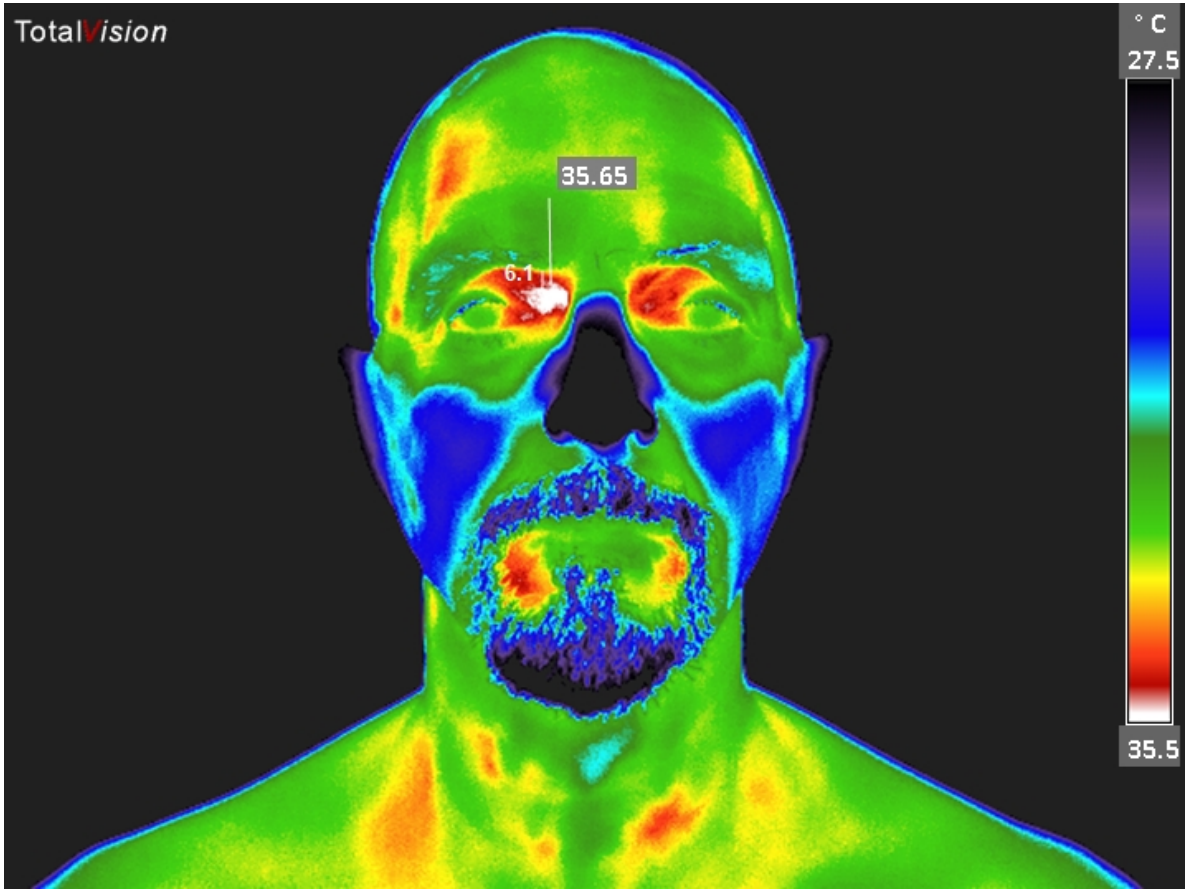
**Converting Photon Signals to Heat**




**Temperature Conversion is a complex integration of technology, image processing, algorithms and data bases**

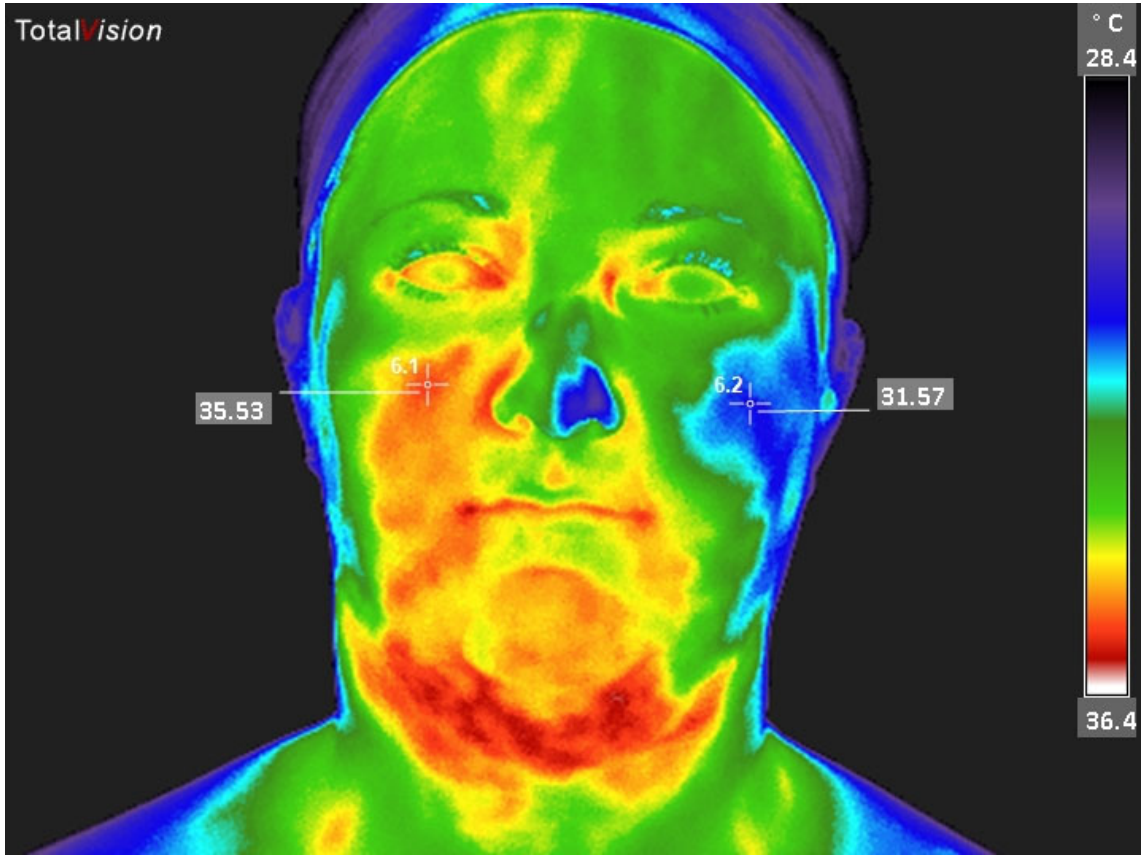


# An Infrared Detector (Camera) is not a Thermometer



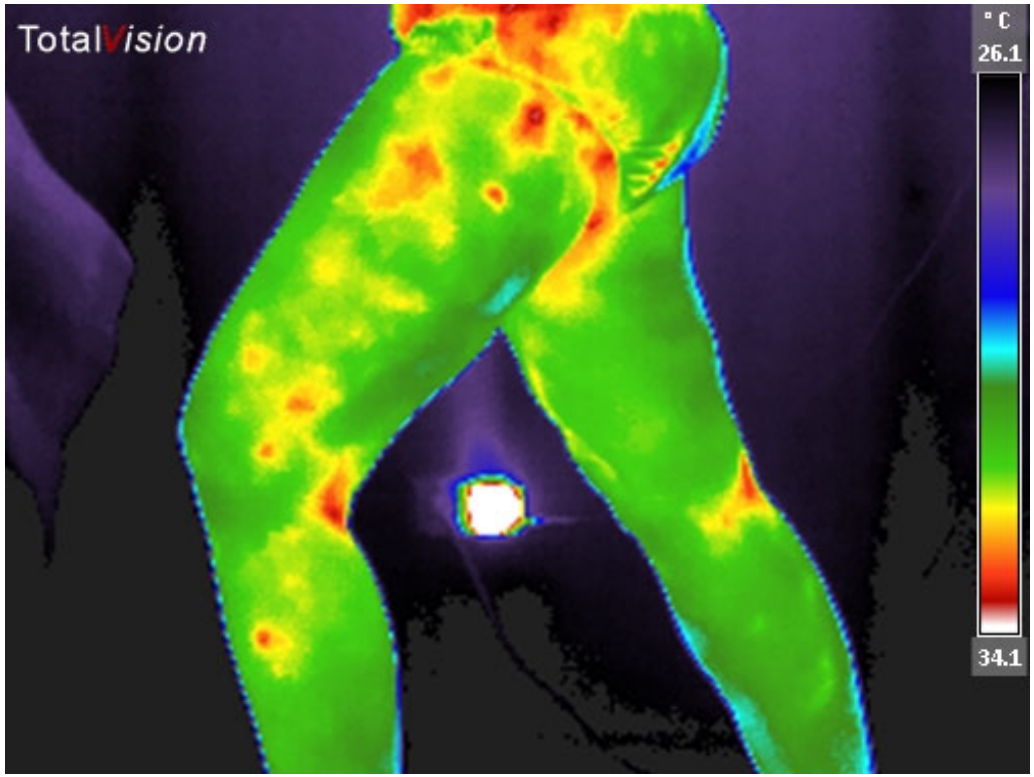

35.65$^{o}$C (96.17 $^{o}$F) is his skin temperature
NOT his basal (internal) temperature

An Infrared Detector (Camera) is Not a Thermometer… But we Don't Care!

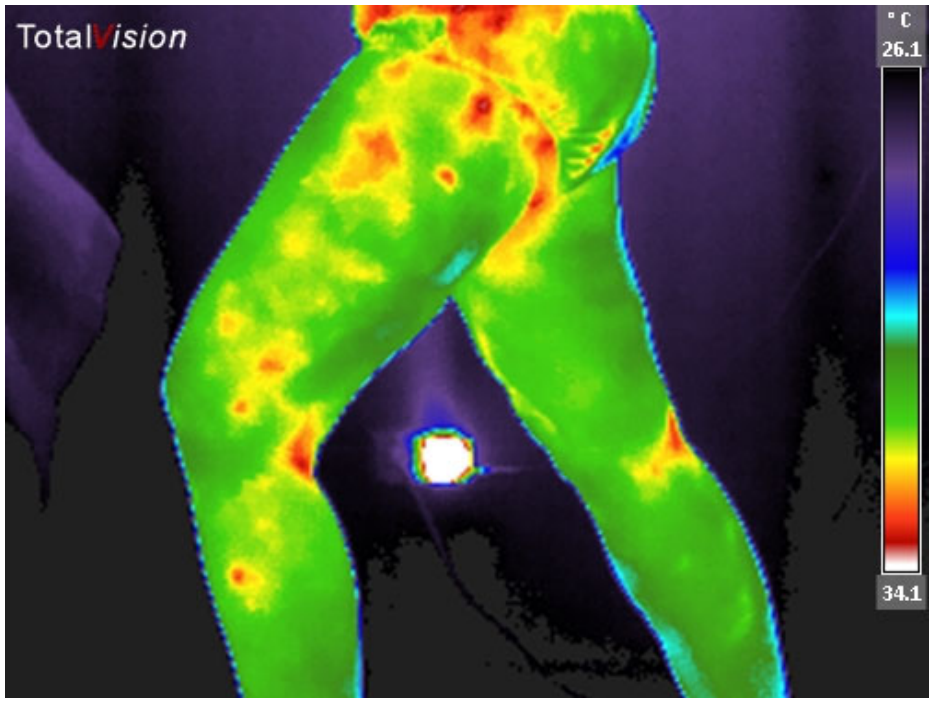


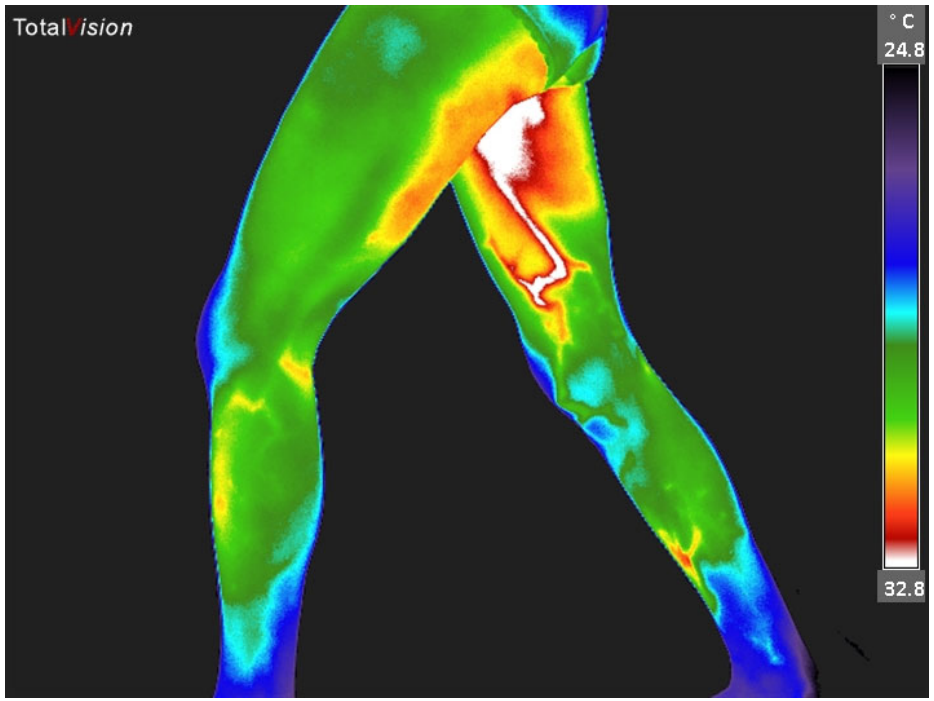

We care about the **asymmetry**…3.96$^{o}$ C difference!
(.5$^{o}$ is expected ΔT tolerance on the face)

Thermal detector is affected by fluctuations of heat between the detector & the background

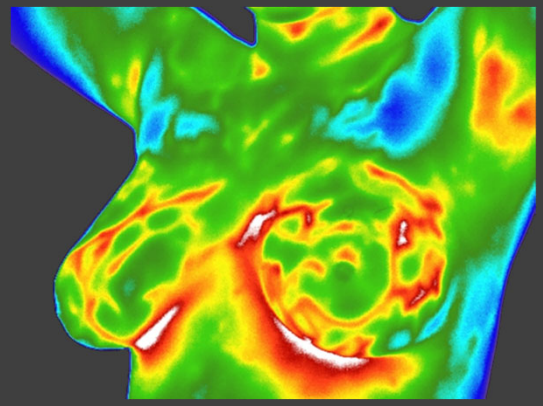



**No Artifacts in the view…**
**Clinical protocols are emphasized!**



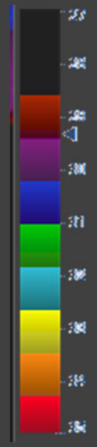



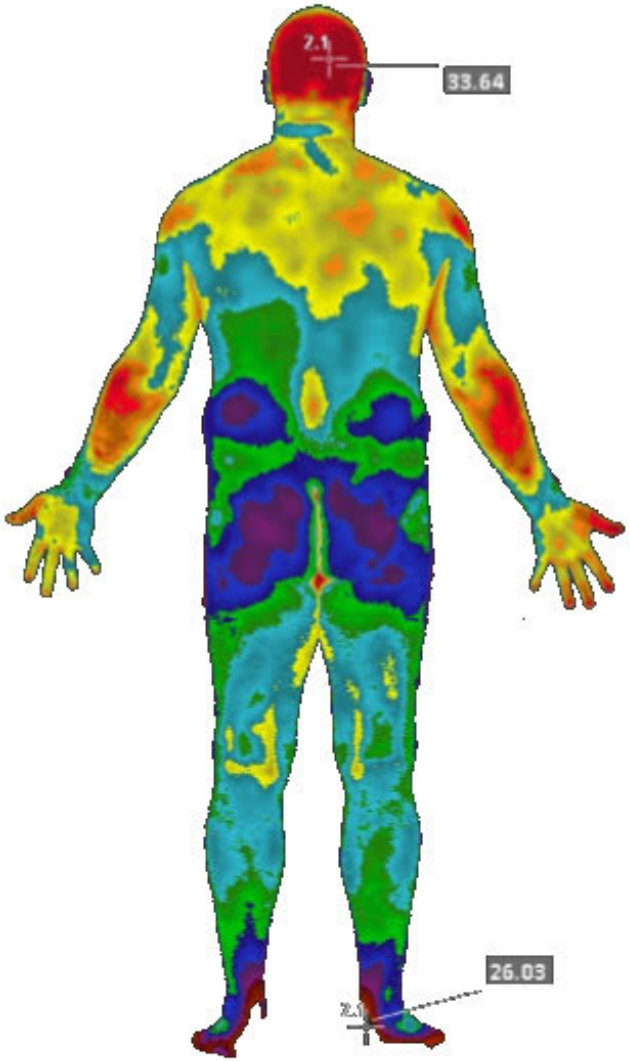

# Room Protocol, Essential and…Professional



# What Am I Looking At?

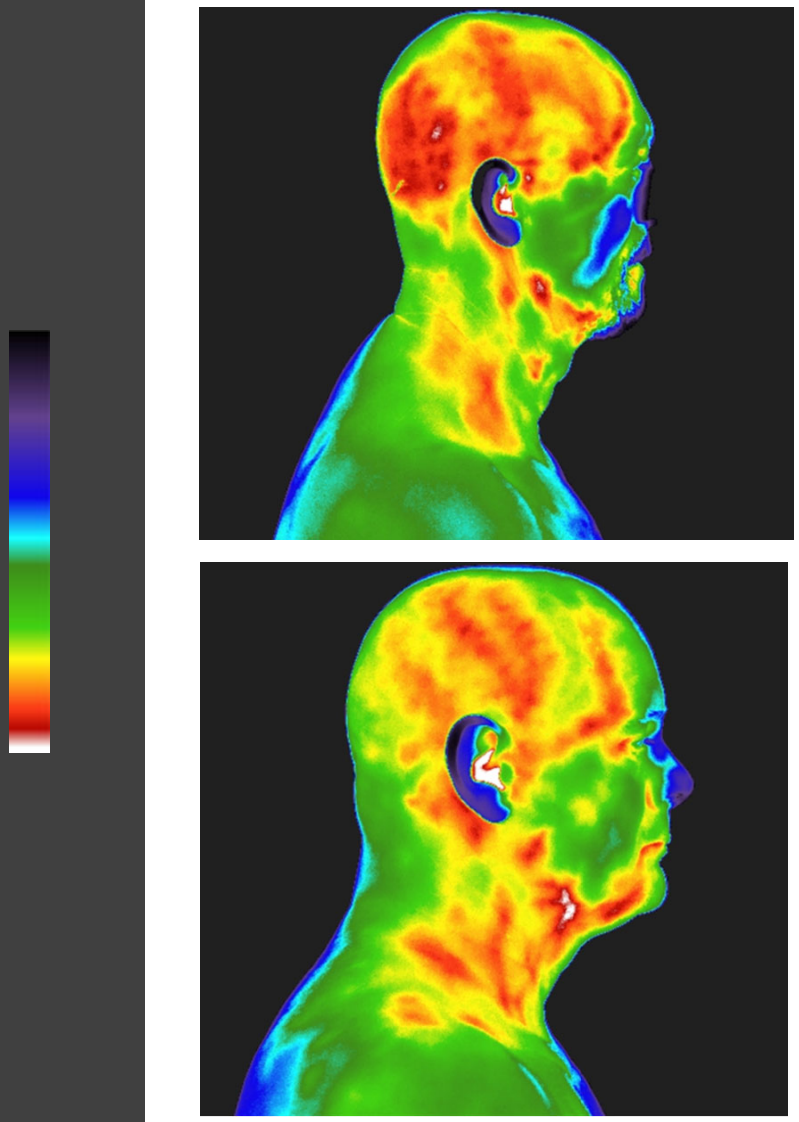
# Thermal Facts






**The average temperature variation from head to toe is 8$^{o}$ C (14.4$^{o}$F)**

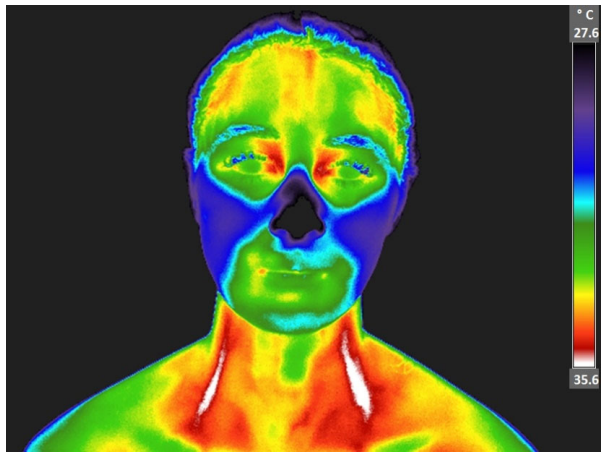
# Thermal Facts

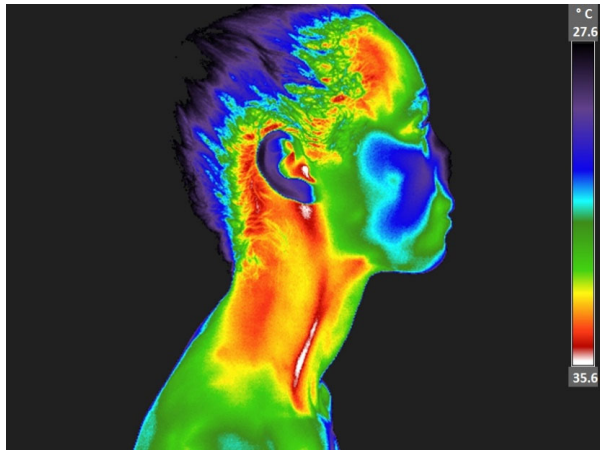


**The blood vessels in the head do not vaso-constrict**

# Thermal Facts

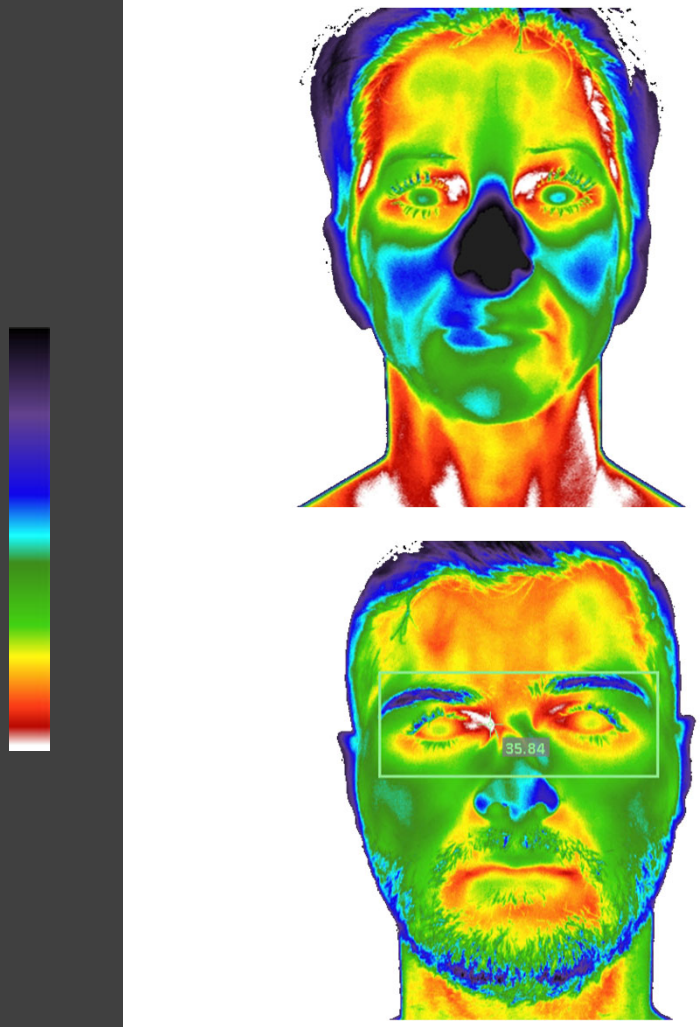




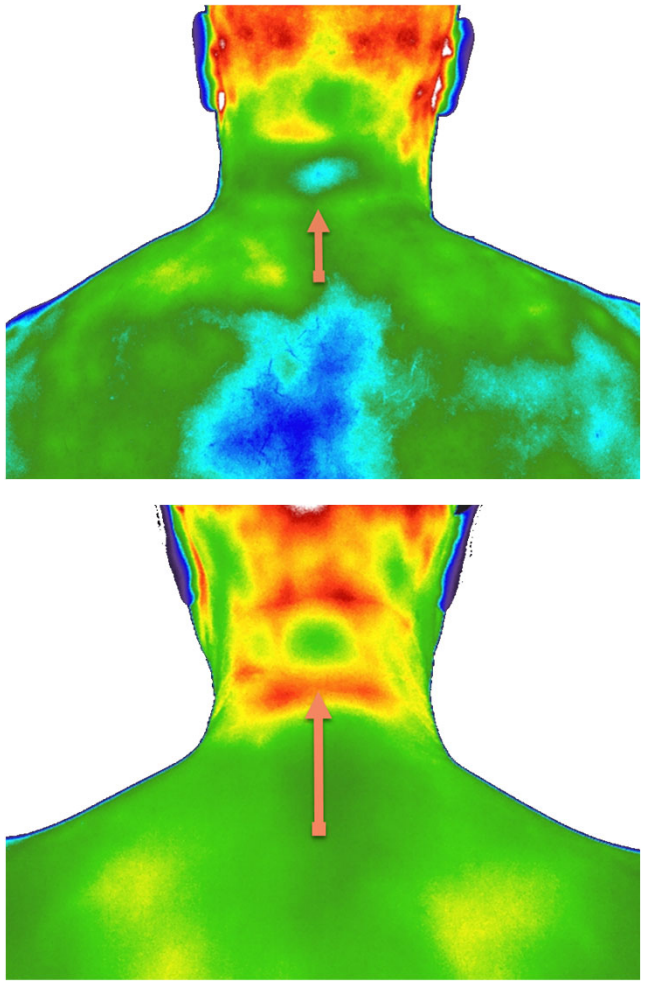

**Healthy ears, nose and cheeks are expected to be colder than the rest of the face.**

# Thermal Facts



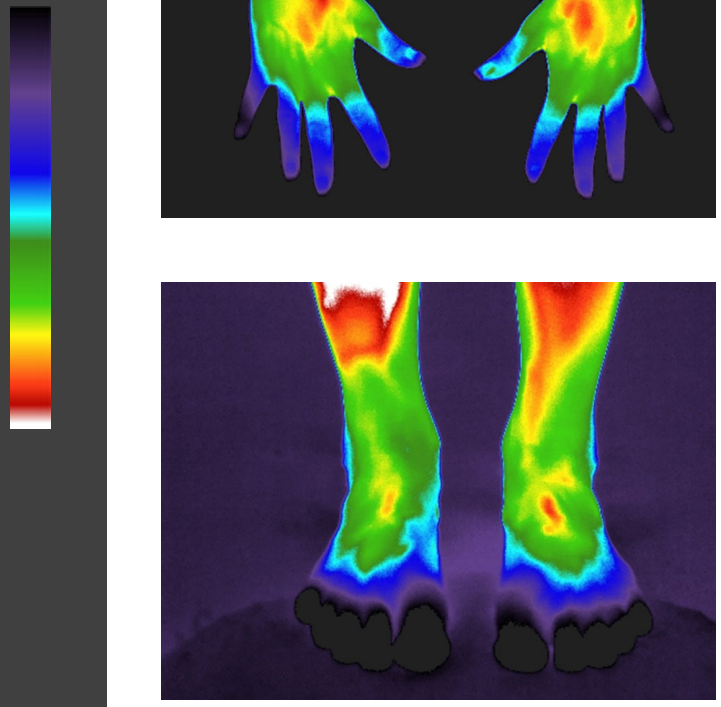

**The inner canthus of the eyes is the most hyperthermic region on the face**

# Thermal Facts



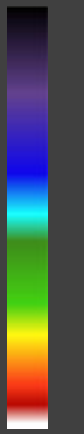
**A pinched nerve in the neck presents as a relatively COLD spot**

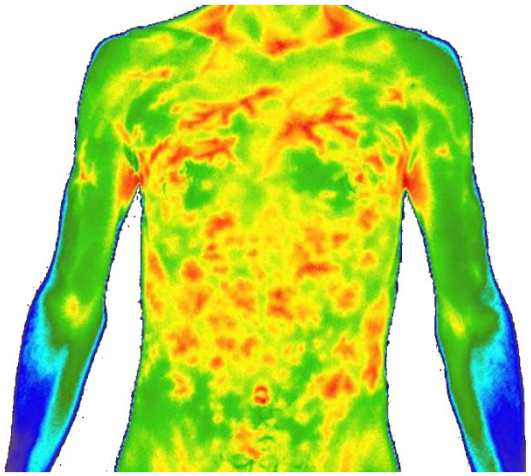
# Thermal Facts

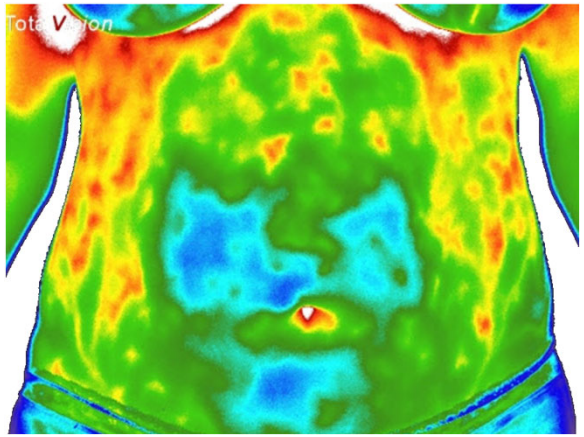


**Healthy fingers and toes are expected to be colder than the arms & legs**

# Thermal Facts





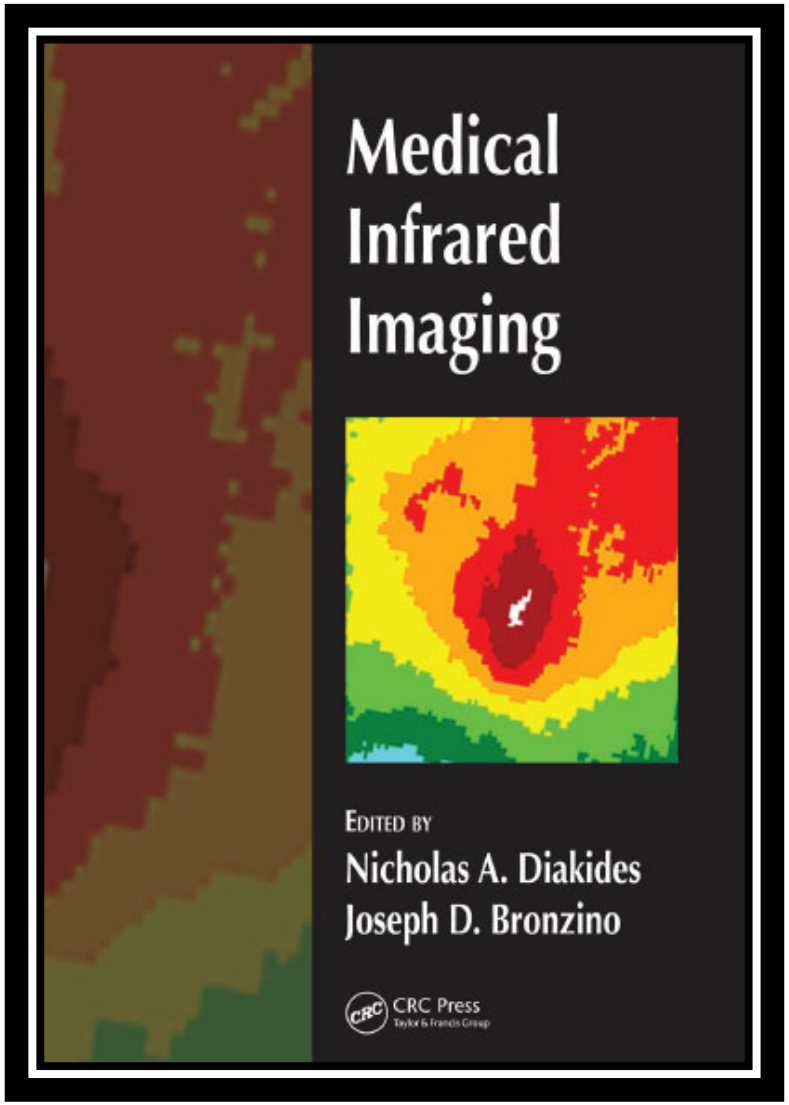


**Visualizing Stress**
**Thermal effects of excess circulating cortisol, the stress hormone**

# Want to Learn More???

## Contact Dr. Carol:

cchandler@med-hot.com
863-646-1599

# Reference

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