


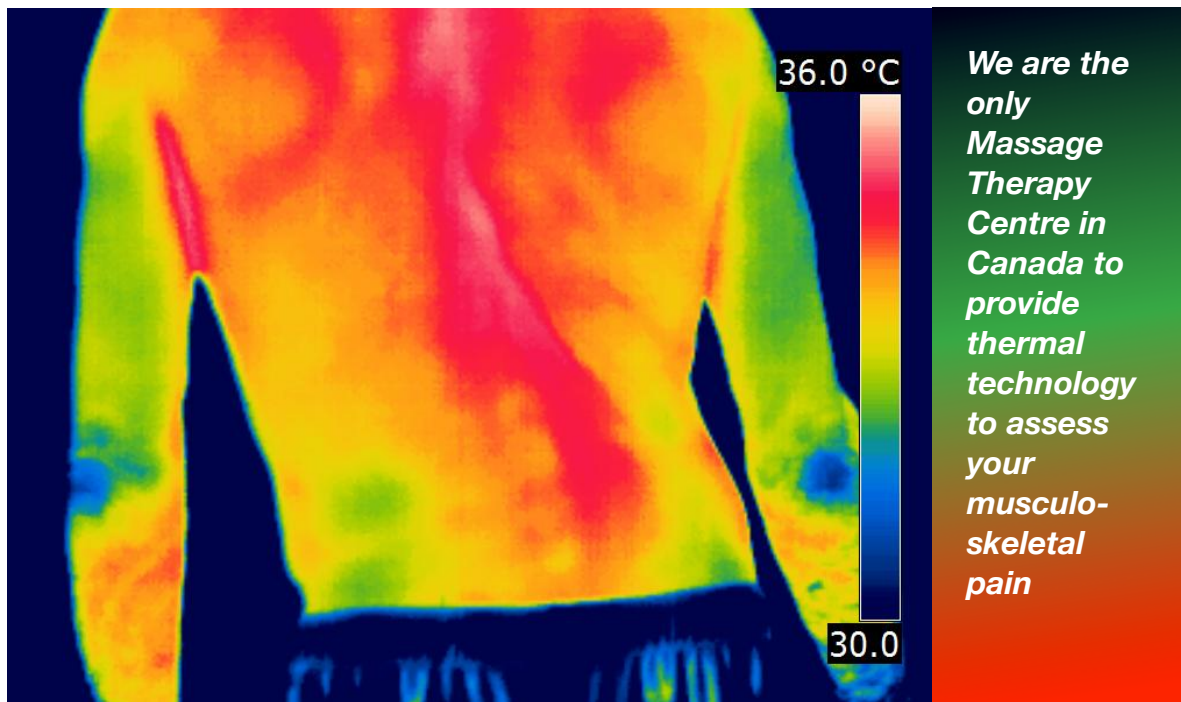
## In this issue:

 I See Your Pain!

 Thermal Imaging

 Stretching (part 1)

 Baby Massage



**We are the only Massage Therapy Centre in Canada to provide thermal technology to assess your musculo-skeletal pain**

## I See Your Pain!

**By Peter Roach, RMT**

Fever was the most common condition observed in early medical history. In the early days of Hippocrates, mud was used on the skin to observe fast drying over a tumorous swelling, thereby indicating the rise in temperature.

These days non-invasive imaging techniques are emerging into the forefront of medical diagnostics and treatment monitoring.

Medical thermal imaging is a non-invasive imaging procedure that helps in detecting diseases and physical injuries.

Every person has their own “thermal image” much like a fingerprint. Changes over time in your ‘fingerprint’, or

differences from one side of your body to the other can indicate potential issues.

Some of the conditions and injuries that a thermal scan can help detect include:

- **back injuries**
- **arthritis**
- **headache**
- **nerve damage**
- **unexplained pain**
- **fibromyalgia**
- **RSD**
- **TMJ dysfunction**
- **carpal tunnel syndrome**
- **inflammatory pain**
- **spain/strain**
- **soft tissue injuries**
- **cancers**

Thermal scans can be taken of the whole body or just areas being investigated. The digitized images are stored on a computer and can be sent to

your MD, specialist, or healthcare practitioner for further interpretation and reporting.

Unlike most diagnostic tests, thermography:

- **is non-invasive**
- **requires no contact with the body**
- **uses no radiation**
- **is completely painless**

Standard region of interest scans take approximately 15 minutes while full body scans take approximately 30 minutes. Your report is normally completed within a week.

Please do not hesitate to talk to me. ☺

**November  
is De-Stress  
Month**



**Update your contact information  
get a stress ball !**

# Thermal Imaging

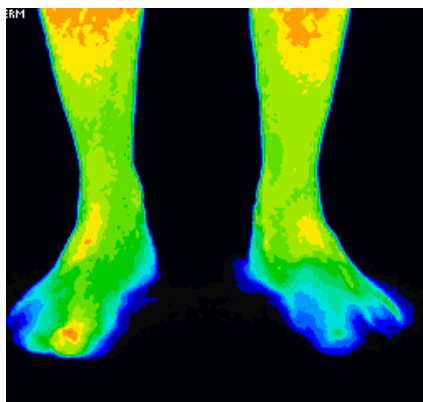
By Peter Roach, RMT

## Physiology

Thermography has been used effectively as an objective test in the assessment of pain. Cutaneous temperature at rest is largely controlled by the sympathetic nervous system (vasoconstrictor nerves) which closely parallel the somatic sensory nerve distribution. Therefore, when pain syndromes are present they affect the sympathetic nervous system, changes in cutaneous blood flow reflects the physiologic response to pain, creating an altered skin temperature that is recorded by the infrared imaging device.

Thermography has been found to be a useful tool for the objective documentation of sensory and sympathetic dysfunction in peripheral nerves with cutaneous projections, as malfunctioning areas can be reliably demonstrated and documented.

While the skin provides clues to diagnose systemic diseases, it is also a



**Right toe pain possibly due to Gout**

window that allows us to monitor the health of our blood vessels and nerves.

## The Sympathetic System

The sympathetic system is largely responsible for the control of surface skin, innervating all tissue including muscle, the ligament, synovium, tendon, fascia, dura, disc & peripheral nerve fibers, interosseous membrane neuro-lymphatic sphincters.

Diseases affecting the vascular system, nerves and connective tissue will result in temperature changes detected by thermography.

***Thermography expands the diagnostic ability of our eyes***

## Criteria for Significance

Identifying areas of pain with thermography has traditionally been performed by the comparison of one side of the body to its corresponding site on the contra lateral side, using the side without pain as the patient's "control". Body areas are then determined to be symmetric or asymmetric to each other with regards to temperature.

What is important from a thermographic perspective is whether the resultant vasomotor response is great enough to create a change in skin temperature of greater than 1 ° C compared to the contra lateral side

or to the surrounding tissue (dermatome, sclerotome or vasotome)

Sensitivity and specificity of thermography in the assessment of pain has been reported within the 80 percentile range. The more we know, the better we can treat you. Simple as that. But gathering the information is an art.

## Conclusion

Understand simply, that we are not diagnosing conditions with thermography. In the same way that thermography cannot see cancer, it cannot see nerve or muscle. It can, however, determine the physiologic presence of abnormalities associated with these anatomically-based factors.

Thermography is adjunctive, reliable and should be used whenever possible to help patients receive the best analysis of their condition and the best treatment directed at that condition. ☺



***Understand simply, that we are not diagnosing conditions with thermography. In the same way that thermography cannot see cancer, it cannot see nerve or muscle. It can, however, determine the physiologic presence of abnormalities associated with these anatomically-based factors***

# Stretching (part 1)

By Brenda Colaire, RMT

Therapeutic exercises are designed to:

- 1) improve or restore an individual's function to perform activities that are necessary and important to them or
- 2) prevent dysfunction

The goal is, therefore, to achieve optimal symptom-free movements during any activity.

Stretching is a general term that describes any therapeutic maneuver designed to increase the mobility of soft tissues and subsequently improve its range of motion (ROM) by lengthening structures that have adaptively shortened and become hypomobile over time. (Kisner, Carolyn; Colby, Lynn Allen: Therapeutic Exercise Foundations and Techniques 4<sup>th</sup> Ed, F.A. Davis Company, Philadelphia, PA, 2002)

Mobility can be described in two ways:

1. The ability of structures or segments of the body to move or be moved to allow range of motion for functional activities (functional ROM) (American Physical Therapy Association: Guide to Physical Therapist Practice, ed 2. Phys Ther 81(1):1-768, 2001)
2. The ability to initiate, sustain and control active movements of the body to perform simple to complex motor skills (functional mobility) (Sullivan, PE, and Markos, PD: Clinical Decision Making in Therapeutic Exercise. Appleton and Lange, Norwalk, CT, 1995)



In relation to functional ROM, mobility is associated with the integrity of a joint, in addition to the flexibility or extensibility of soft tissues that cross or surround joints including muscles, tendons, fascia, joint capsules and skin, all required for unrestricted, pain-free movements of the body during functional tasks throughout the day.

Hypomobility is decreased mobility or restricted motion caused by such factors as tissue trauma, sedentary lifestyle, postural mal-

## TRAINING SESSIONS IN INFANT MASSAGE FOR NEW MOMS

offered by

**Brenda Colaire, RMT**



**\$10.00**

*Classes will be held at two different times on alternate Sundays, one in the morning and one in the afternoon. Classes will entail a one-time attendance, but additional sessions can be arranged if required and requested by mothers.*

**Times:**

11:30 a.m. &  
1:30 p.m.

**Duration:**

20 – 30 minutes

**Cost:**

\$10 per session

**Max. participants per class:**

4

**Dates:**

**2009**

**2010**

October 4, 18

Jan: 2, 24

November 1, 15, 29

Feb: 7, 21

December 13, 27

Mar: 7, 21

Apr: 4, 18

May: 2, 16, 30

Jun: 13, 27

Jul: 11, 25

Aug: 8, 22

Sep: 5, 19

Oct: 3, 17, 31

Nov: 14, 28

Dec: 12, 26

**For registration call  
604-732-4665**

### **Pregnancy Massage**

We offer pregnancy massage to expectant Moms also - call for more information  
(for Pre-natal and Doula Services visit our website)





Suite #218  
2475 Bayswater St.  
Vancouver, B.C.  
V6K 4N3

*If you are not  
receiving this  
newsletter via  
email check  
with your  
therapist to  
ensure you are  
on our list*



**Don't forget your  
stress ball!**

alignment, impaired muscle performance and prolonged immobilization that lead to soft tissue stiffness, the potential loss of range of motion and the development of contractures (adaptive shortening of the muscle-tendon unit or other soft tissue that cross or surround a joint).

Physiologically, stretching is more effective if the muscles are already warmed up. The activity reduces stiffness, increases blood flow to the muscles hence preparing them for use, increases the production of synovial fluid to lubricate the joints, oxygen exchange in the muscle, and the rate of nerve transmission and movement around a joint. As a result, the muscle fibres become more pliable so an individual can stretch easier. Other potential benefits are the prevention of soreness and injuries, improved performance and promotion of body awareness.

Daily stretching is favoured in conjunction with exercise. The best scenario entails a warm up (10-15 minutes), stretch, exercise, second set of stretches then a cool down. The reasons for stretching pre and post exercise: (McAtee, Robert E; Charland, Jeff: Facilitated Stretching 2<sup>nd</sup> Edition)

1. Stretching prior to an exercise routine prepares them to perform at their optimum level which allows the muscles to develop the most power as they work
2. Stretching after exercising while they are still warm brings them back to their optimum resting length. As muscles work they continually contract and shorten and stay short when the workout is over unless stretched again.

During post-exercise stretching, be careful of overstretching. Since the muscles are very pliable at that time, a danger can arise when the supporting structures of a joint and muscle strength around a joint are insufficient and cannot hold a joint stable. This in turn can cause joint pain and musculoskeletal injury. Overstretching is a stretch beyond the normal ROM of a joint and the surrounding tissues resulting in hypermobility or excessive mobility. ☺

**Next issue:**  
**Indications of Stretching:**  
**when to stretch (part 2)**

