

# CRT2000®

# Thermographic System

Contact Regulation Thermography  
Measurement Procedure &  
Interpretation of Results

# CRT system

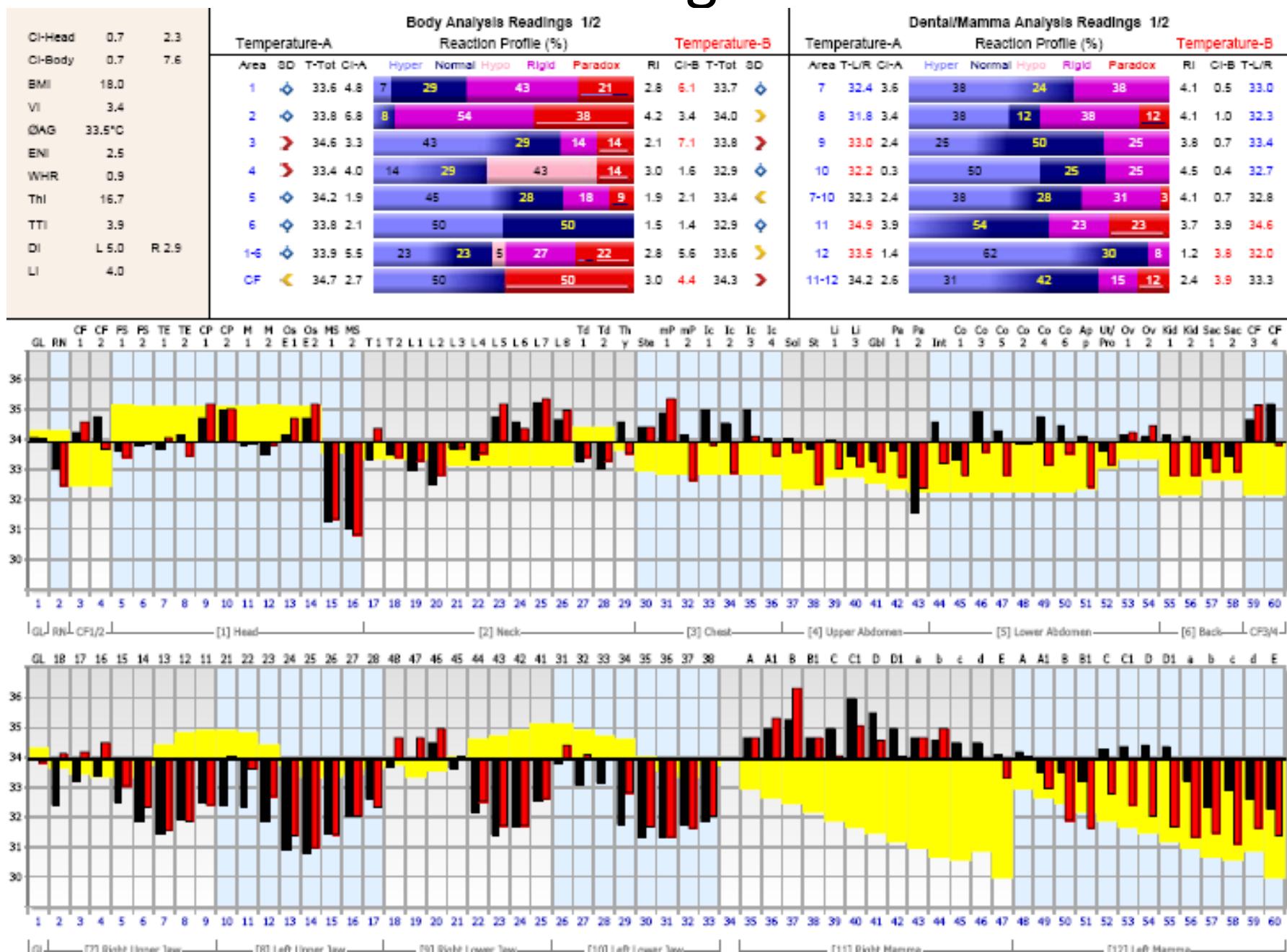


- Consists of a temperature probe & a computer for data display & analysis
- Measures the body's physiological response to temperature stress following disrobing in a temperature controlled room
- Identifies areas of dysfunction & patterns of disturbance across several organ systems
- Provides early detection, before a disease has manifested into a symptom

# CRT Procedure

- The patient progressively disrobes, while 119 temperature measurements are taken at specific sites on the head, torso, & arms
- Patient waits 10 min while fully disrobed (except underpants)
- After the cooling stimulus, the 119 measurements are repeated
- Measurements used to create a Thermogram & Patient Evaluation Report
- Non-invasive, no radiation
- Procedure takes ~30 min

# Thermogram

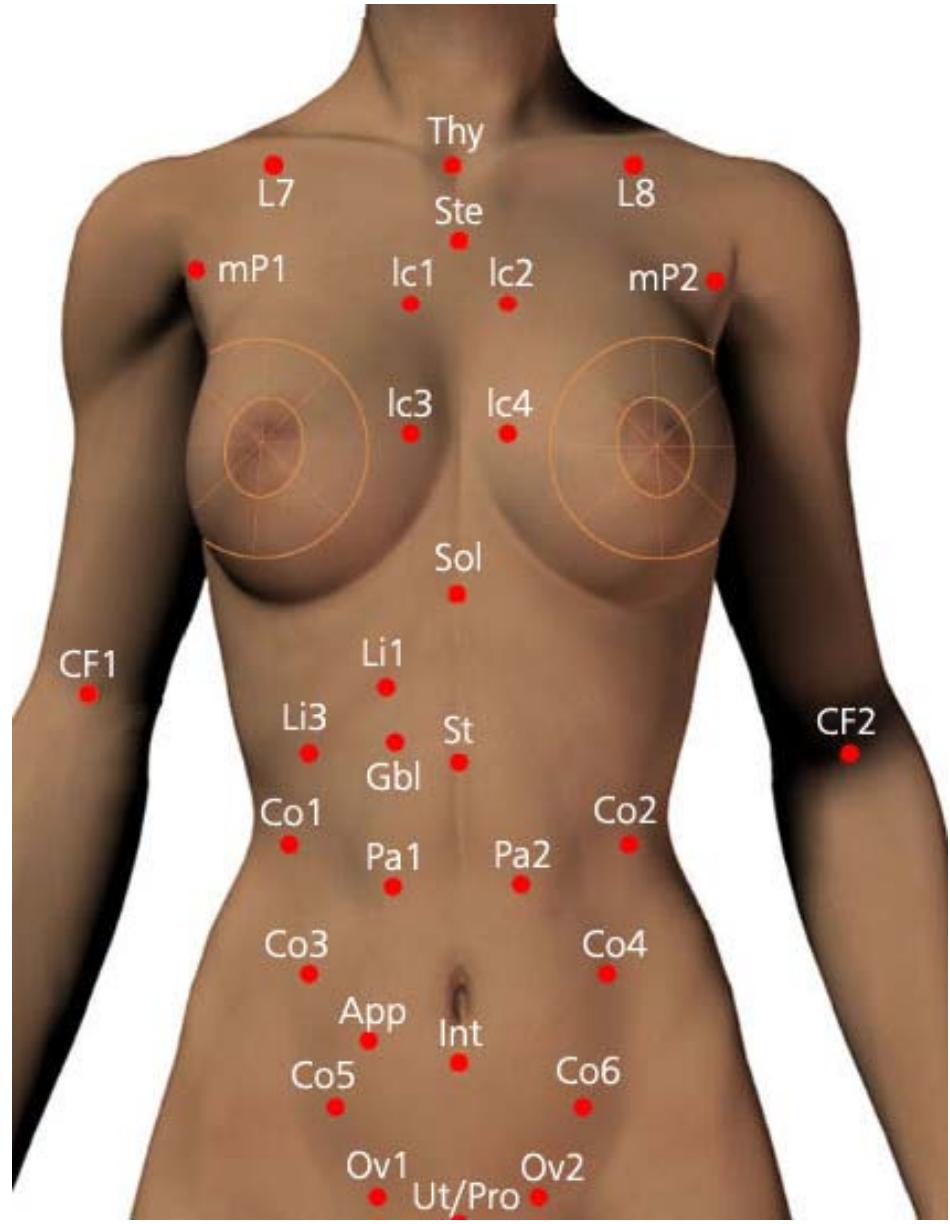
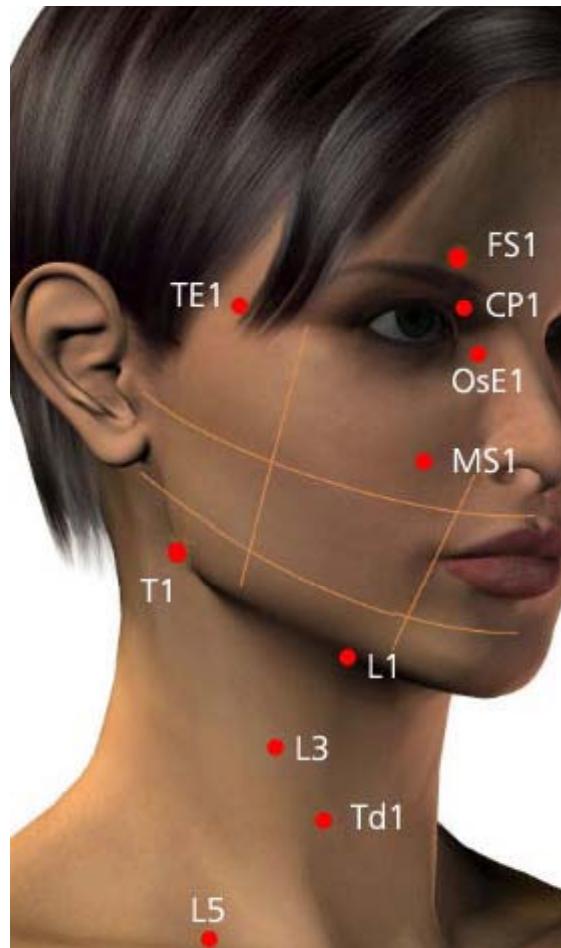
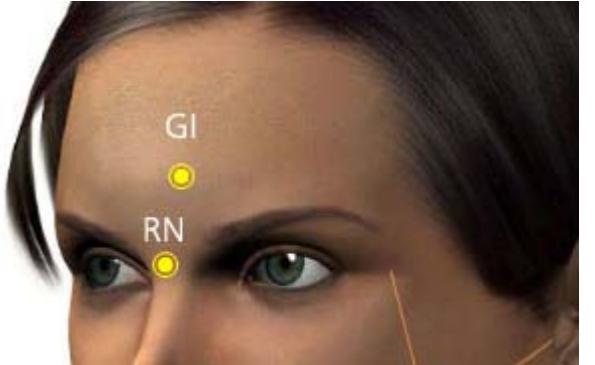


# Thermography Legend

Odd # = RIGHT side body reading

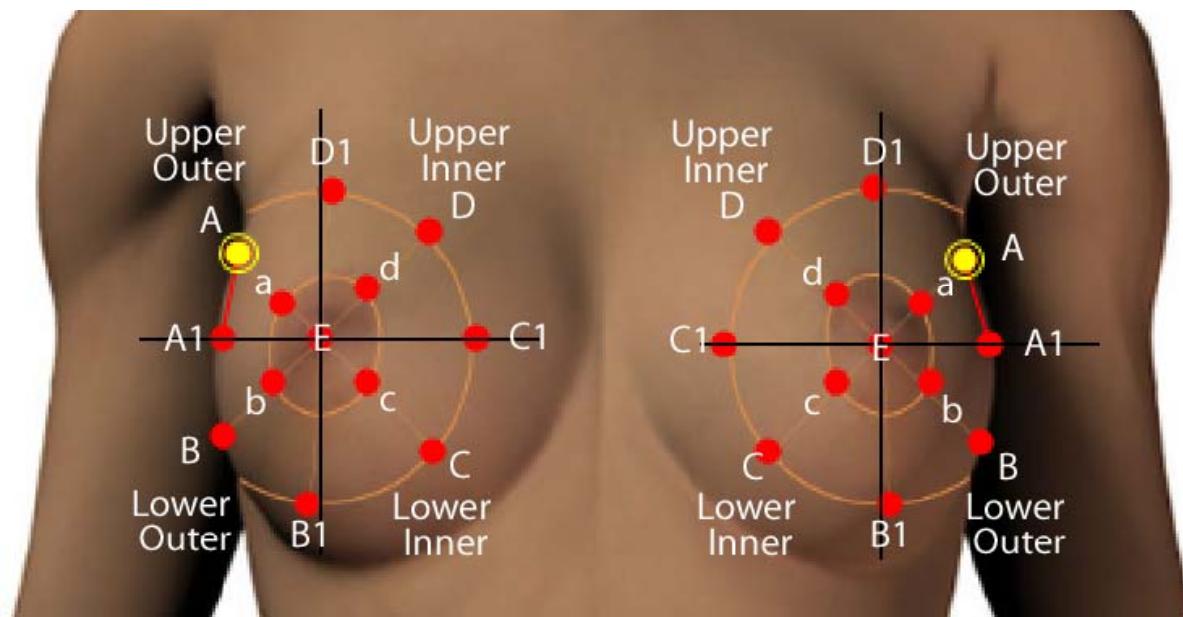
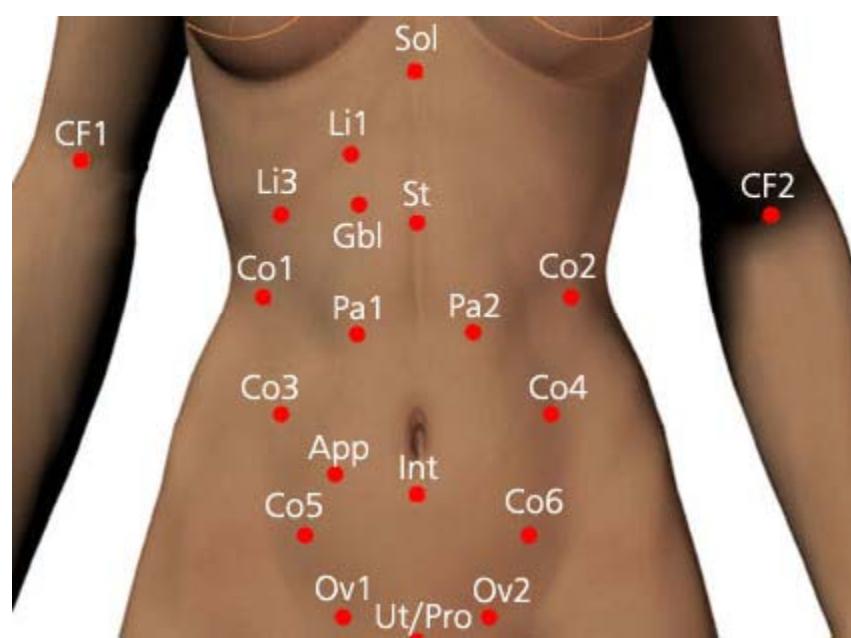
Even # = LEFT side body reading

Abbrv	Area	Location Description	Abbrv	Area	Location Description
GL	Glabella	Center of forehead	L	Lymph	Low jaw, SCM, above & below clavicle
RN	Radix Nasi	Center bridge of nose	Td	Thyroid	Each side of gland
CF	Cubital fossa	Bend of elbow	Thy	Thymus	Fossa above manubrium
FS	Frontal sinus	Upper line of eyebrow	Ste	Sternum	Center of Sternum
TE	Temple	Temple groove	mP	Pectoralis m	1 cm above axillary fold
CP	Inner eye	Corner of the eye	Ic	Heart valves	3 <sup>rd</sup> /5 <sup>th</sup> intercostal spaces
M	Mastoid	Mastoid prominence	Sol	Solar plexus	Below xyphoid process
OsE	Ethmoid sinus	Sides of bridge of nose	St	Stomach	½ way between Solar plexus & navel
MS	Maxillary sinus	Below center of eye at nose tip level	Li	Liver	Below R costal arch & in line with Solar plexus
T	Tonsil	End of low jaw below earlobe	Gbl	Gallbladder	Below Li1 & to left of Li3



# Thermography Legend

<b>Abbrv</b>	<b>Area</b>	<b>Location Description</b>	<b>Abbrv</b>	<b>Area</b>	<b>Location Description</b>
Pa	Pancreas	½ way between St & navel, 4 cm from center line	Ut/Pro	Uterus / Prostate	Center directly above pubic hairline
Int	Intestine	3 cm below navel	Ov	Ovary	3 cm above & 4 cm to each side of Ut point
Co1	Colon	Hepatic Flexure, 2 cm below rib 12	Groin	Ov area for men	Groin crease at same level as Pro point
Co2	Colon	Splenic flexure, mirror Co1	Kid	Kidney	Below rib 12 & 5 cm from centerline
Co3	Colon	Ascending colon at level of ASIS in line with Li3	Sac	Sacroiliac joints	At dimples of SI joints above buttocks
Co4	Colon	Descending colon at level of ASIS, mirror Co3	A, A1, B, B1, C, C1, D, D1	Breast Outer Circle	Start near armpit at 10:30 & move CCW for R breast & CW for L breast
Co5/6	Colon	Midpt between ASIS & pubic symphysis	a, b, c, d	Breast Inner circle	Pts make square: 2, 4, 8 & 10 o'clock; move CCW on R & CW on L breast
App	Appendix	Midway between navel & R hip bone	E	Center breast	Nipple



# Thermography Teeth Legend

<b>Measurement Point</b>	<b>Area</b>	<b>Location Description</b>
11 - 18	Upper RIGHT Jaw	8 pts from R philtrum to upper cheek in line with corner of eye
21 - 28	Upper LEFT Jaw	8 pts from L philtrum to upper cheek in line with corner of eye
31 - 38	Lower RIGHT Jaw	8 pts from R of center of chin to lower cheek in line with corner of eye
41 - 48	Lower LEFT Jaw	8 pts from L of center of chin to lower cheek in line with corner of eye

# Temperature Regulation Categories

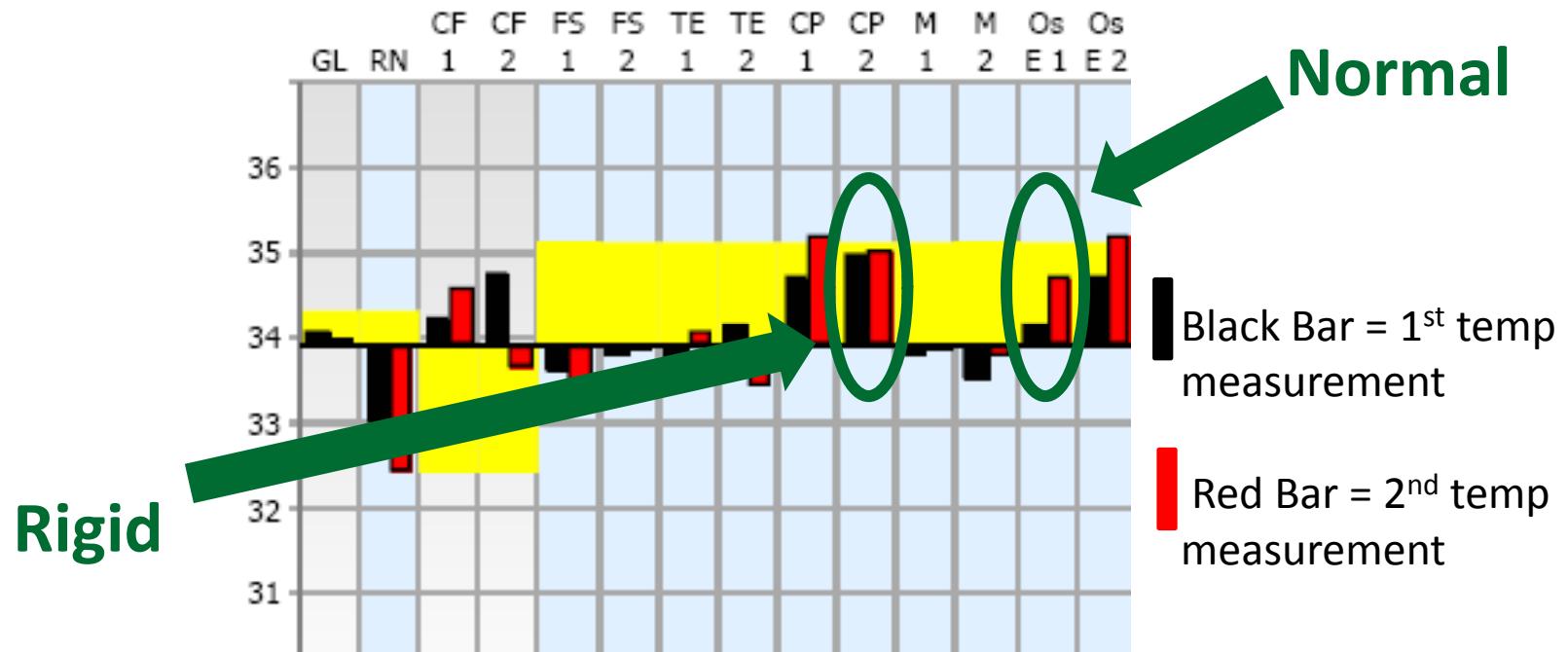
Regulation/Reaction	$\Delta T$ *
Normal	0.5-1.0 °C
Rigid	0 - 0.2 °C
Hypo	0.2- 0.5 °C
Hyper	> 1.0 °C
Paradoxyl	**Opposite temperature regulation

\* Change in temperature calculated between the 1<sup>st</sup> & 2<sup>nd</sup> measurements

\*\* Temperature adjusted in the opposite direction that was expected. (ie: On the head the temperature for the 2<sup>nd</sup> measurement is expected to be higher, a paradoxyl reaction would result in a lower 2<sup>nd</sup> temp measurement)

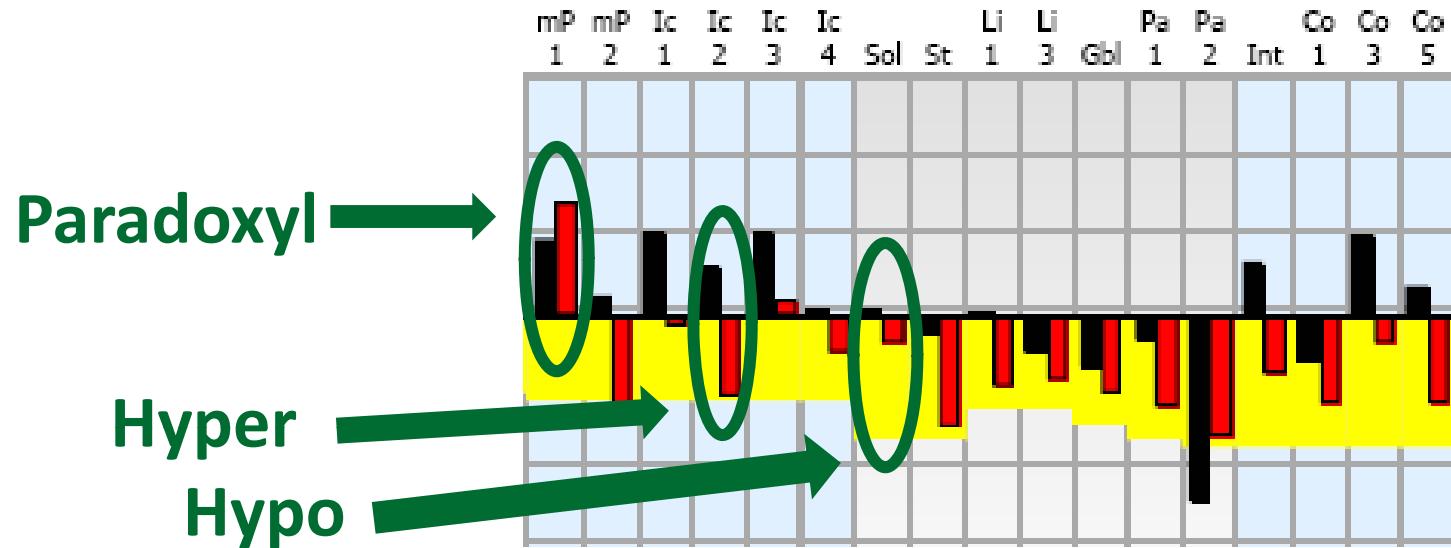
# Reactions to Temperature Stress

- Normal Reaction:
  - Temperature increase  $\sim 0.3 \text{ }^{\circ}\text{C}$  for head & thyroid regions
  - Temperature decrease  $\sim 0.5 - 1.0 \text{ }^{\circ}\text{C}$  for all other regions



- Rigid Reaction: 2<sup>nd</sup> measurement nearly same as the 1<sup>st</sup>
  - Indication of blockage, disturbed organ with low ANS influence

# Reactions to Temperature Stress



- Hypo Reaction: minimal or inadequate temperature change
  - Area of dysfunction or decreased blood/lymph flow
- Hyper Reaction: overreaction to stimulus
  - Typical for allergies or autoimmune syndromes, areas of inflammation
- Paradoxyl Reaction: 2<sup>nd</sup> measurement is opposite of expected
  - Indicates inability to regulate properly, disturbed areas, disease process, chronic inflammation

### Body Analysis Readings 1/2

Temperature-A				Reaction Profile (%)					Temperature-B			
Area	SD	T-Tot	CI-A	Hyper	Normal	Hypo	Rigid	Paradox	RI	CI-B	T-Tot	SD
1	◆	33.6	4.8	7	29	43	21		2.8	6.1	33.7	◆
2	◆	33.8	6.8	8	54		38		4.2	3.4	34.0	➤
3	➤	34.6	3.3		43	29	14	14	2.1	7.1	33.8	➤
4	➤	33.4	4.0	14	29	43	14		3.0	1.6	32.9	◆
5	◆	34.2	1.9		45	28	18	9	1.9	2.1	33.4	◀
6	◆	33.8	2.1		50		50		1.5	1.4	32.9	◆
1-6	◆	33.9	5.5	23	23	5	27	22	2.8	5.6	33.6	➤
CF	◀	34.7	2.7		50		50		3.0	4.4	34.3	➤

**Reaction Profile:** summarizes responses to the temperature stress stimulus in reaction categories for each body region

- Represents burden placed on connective tissue & levels of toxicity in the region

\*\*Notice for Area 1 (head region) data analysis indicates the following reactions: 7% hyper, 29% normal, 0% hypo, 43% rigid, 21% paradox

Body Analysis Readings 1/2										Dental/Mamma Analysis Readings 1/2															
Temperature-A				Reaction Profile (%)						Temperature-B				Temperature-A				Reaction Profile (%)						Temperature-B	
Area	SD	T-Tot	CI-A	Hyper	Normal	Hypo	Rigid	Paradox	RI	CI-B	T-Tot	SD	Area	T-L/R	CI-A	Hyper	Normal	Hypo	Rigid	Paradox	RI	CI-B	T-L/R		
1	◆	33.6	4.8	7	29	43	21		2.8	6.1	33.7	◆	7	32.4	3.6	38	24	38		4.1	0.5	33.0			
2	◆	33.8	6.8	8	54	38			4.2	3.4	34.0	▶	8	31.8	3.4	38	12	38	12	4.1	1.0	32.3			
3	▶	34.6	3.3		43	29	14	14	2.1	7.1	33.8	▶	9	33.0	2.4	25	50	25		3.8	0.7	33.4			
4	▶	33.4	4.0	14	29	43	14		3.0	1.6	32.9	◆	10	32.2	0.3	50	25	25		4.5	0.4	32.7			
5	◆	34.2	1.9		45	28	18	9	1.9	2.1	33.4	◀	7-10	32.3	2.4	38	28	31	3	4.1	0.7	32.8			
6	◆	33.8	2.1		50	50			1.5	1.4	32.9	◆	11	34.9	3.9	54	23	23		3.7	3.9	34.6			
1-6	◆	33.9	5.5	23	23	5	27	22	2.8	5.6	33.6	▶	12	33.5	1.4	62	30	8		1.2	3.8	32.0			
CF	◀	34.7	2.7		50	50			3.0	4.4	34.3	▶	11-12	34.2	2.6	31	42	15	12	2.4	3.9	33.3			

- Reaction Profile summaries of each area
  - 1-6: Head, Neck, Back, Chest & Abdomen
  - 7-10: Bilateral Dental regions
  - 11-12: Bilateral breasts
- Of most concern are individual regions & area summaries with high percentages of Rigid or Paradox reactions
- % Paradox + % Rigid is >35%: indicates a blocked region that needs further investigation

# Other Reaction Profile Elements

- Temperature A = 1<sup>st</sup> measurement
- Temperature B = 2<sup>nd</sup> measurement (post temperature stress)
- SD: Temperature side difference (right vs. left side of body)

◊= no noticeable side difference

➤ Arrows point right or left indicating the side with the higher temperature reading

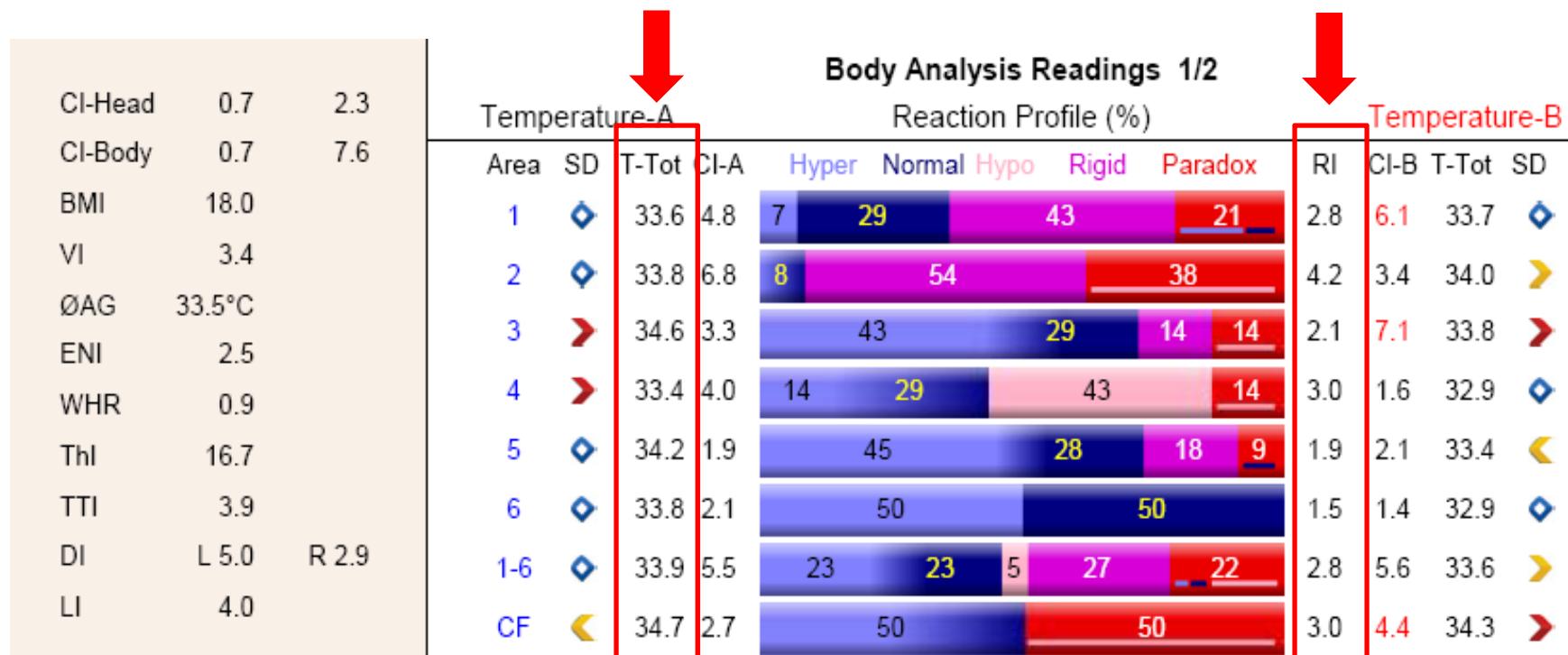
Yellow Arrow = significant difference (0.3-0.7 °C)

Red Arrow = high difference (>0.7 °C)

- Note: if there is a SD in the initial temperature, but not in the final temperature then the body has compensated properly & “reset” itself.

# Other Reaction Profile Elements

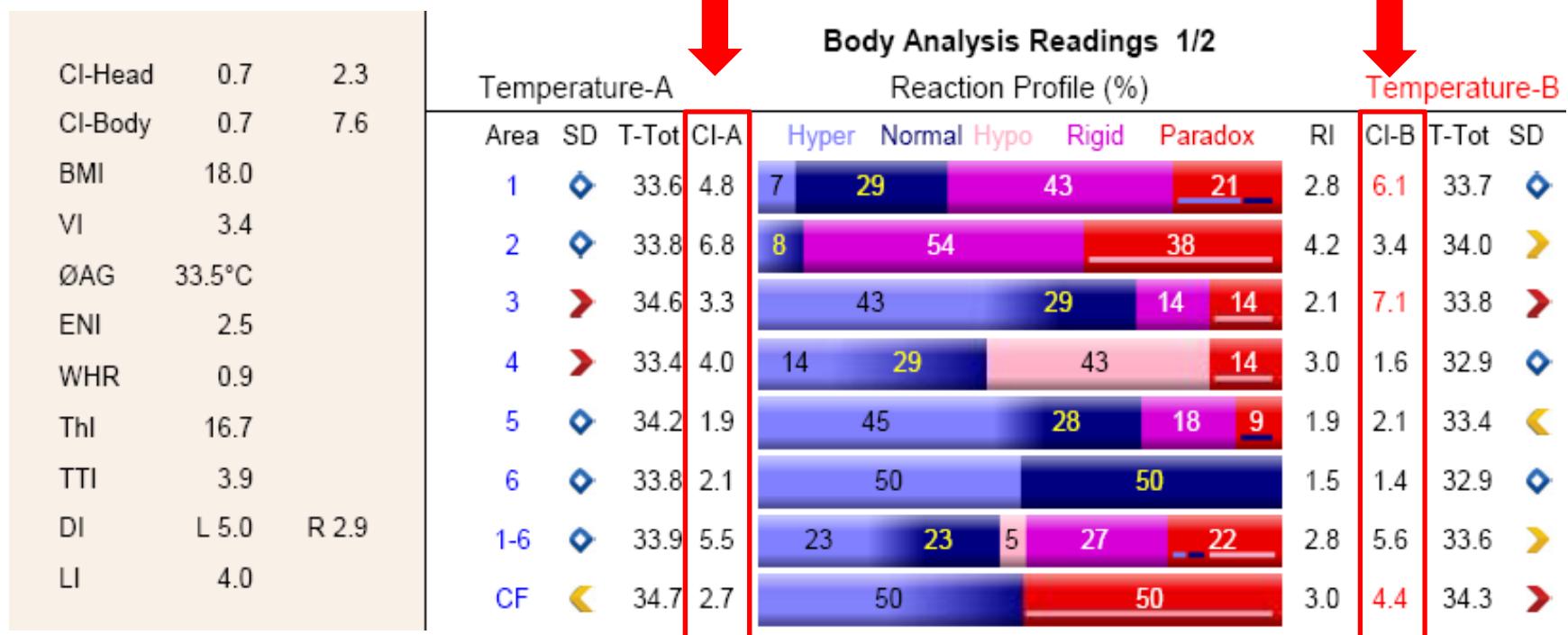
- T-tot: Average of all temperature measurements for area
- Reaction Index (RI): the degree of stress response in an area
  - RI > 3.5: indicates high metabolic activity, inflammation
  - RI < 1.5: indicates chronic low metabolic activity, toxic stress, & degeneration



# Chaos Index (CI)

Indicates an extreme mixture of all reaction types for a particular area & tells how well the system compensates for stress

CI	Health Status
0-2	Healthy
2-4	Borderline
4 +	Unhealthy



# Chaos Index (CI)

- CI-A: CI for system at rest
- CI-B: CI for system following stress

$CI_A - CI_B$  = measure of compensation

$CI_A - CI_B$	Compensation ability
> 0.3	Normal
0-0.3	Difficulty Compensating
< 0	Decompensation

- Normal: reacting to temperature cooling stress in a normal way
- Unable to Compensate: did not react properly, may indicate a disturbed field
- Decompensation: region reacted negatively to cooling stimulus; indicates an underlying functional disorder

# Aggregate Chaos Indices

	Body Analysis Readings 1/2												
	Temperature-A				Reaction Profile (%)				Temperature-B				
	Area	SD	T-Tot	CI-A	Hyper	Normal	Hypo	Rigid	Paradox	RI	CI-B	T-Tot	SD
CI-Head	0.7	2.3											
CI-Body	0.7	7.6											
BMI	18.0				1	◆	33.6	4.8	7	29	43	21	2.8
VI	3.4				2	◆	33.8	6.8	8	54	38		4.2
ØAG	33.5°C				3	➤	34.6	3.3		43	29	14	2.1
ENI	2.5				4	➤	33.4	4.0	14	29	43	14	3.0
WHR	0.9				5	◆	34.2	1.9		45	28	18	1.9
ThL	16.7				6	◆	33.8	2.1		50	50		1.5
TTI	3.9				1-6	◆	33.9	5.5	23	23	5	27	2.8
DI	L 5.0	R 2.9			CF	◀	34.7	2.7		50	50		5.6
LI	4.0												3.0

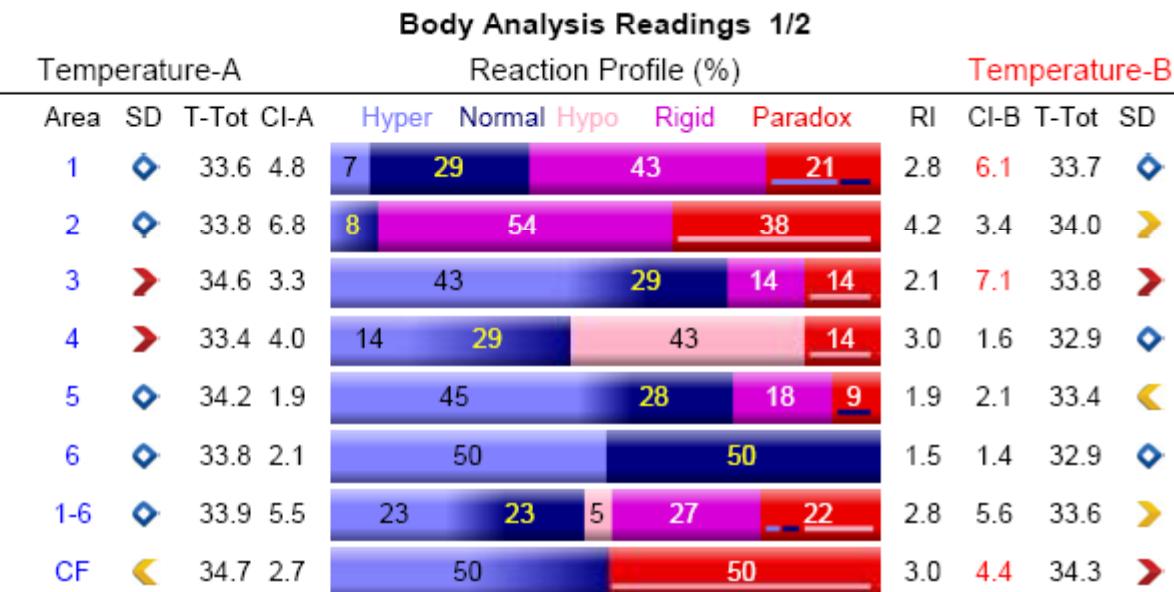
- CI-Head: Head, Dental, Tonsils & Upper neck
  - Includes regions 1, 7, 8, 9, 10, & points (T1, 2 & L 1-4)
- CI-Body: Lower Neck, Chest, Abdomen & Back

Further investigation is needed if the aggregate chaos index:

- increases following the stress
- is > 4 after the stress

# Vitality Index (VI)

CI-Head	0.7	2.3
CI-Body	0.7	7.6
BMI	18.0	
VI	3.4	
ØAG	33.5°C	
ENI	2.5	
WHR	0.9	
ThI	16.7	
TTI	3.9	
DI	L 5.0	R 2.9
LI	4.0	



Describes the metabolic activity of the patient with respect to their age group

VI	
> 3.8	Excessively High Metabolic Activity
2.5-3.8	Normal Metabolic Activity
2.0-2.5	Low Metabolic Activity
< 2.0	Very Low Metabolic Activity

# Vitality Index (VI)

These conditions are commonly seen in patients with excessively low or high VI:

Low VI	High VI
Depression	Physically Active
Chronic or Autoimmune Disease	Hormonal Disorders
Hypothyroidism	Hyperthyroidism
Viral Infections	Progressive Cancer
Elderly or Pre-aged	Younger Patients
Low Metabolic Activity	High Metabolic Activity

- High VI for cancer patients (>4) = high metabolic activity of the cancer
- Low VI for cancer patients = low metabolic activity & slow progression or regression of cancer
- If the patient has a low VI & all cubital fossa (CF) measurements are below baseline temperature, this condition generally indicates health degeneration & further investigation needed

# Enteropathy Index (ENI)

	Body Analysis Readings 1/2												
	Temperature-A				Reaction Profile (%)				Temperature-B				
	Area	SD	T-Tot	CI-A	Hyper	Normal	Hypo	Rigid	Paradox	RI	CI-B	T-Tot	SD
CI-Head	0.7	2.3			7	29	43	21		2.8	6.1	33.7	◆
CI-Body	0.7	7.6			8	54		38		4.2	3.4	34.0	➤
BMI	18.0				43	29	14	14		2.1	7.1	33.8	➤
VI	3.4				14	29	43	14		3.0	1.6	32.9	◆
ØAG	33.5°C				45	28	18	9		1.9	2.1	33.4	➤
ENI	2.5				50	50				1.5	1.4	32.9	◆
WHR	0.9				23	23	5	27	22	2.8	5.6	33.6	➤
ThI	16.7				50					3.0	4.4	34.3	➤
TTI	3.9												
DI	L 5.0	R 2.9											
LI	4.0												
	CF	➤	34.7	2.7	50		50						

Quantitatively describes the distress level of the intestinal system and the balance of the intestinal flora

ENI	Condition
0-2	Normal Eubiosis
2-4	Borderline Dysbiosis
4-6	Dysbiosis

Lymphatic Index (LI): quantitatively describes the status of the immune system with respect to lymphatic congestion

	Body Analysis Readings 1/2												
	Temperature-A				Reaction Profile (%)				Temperature-B				
	Area	SD	T-Tot	CI-A	Hyper	Normal	Hypo	Rigid	Paradox	RI	CI-B	T-Tot	SD
CI-Head	0.7	2.3			7	29	43	21		2.8	6.1	33.7	◊
CI-Body	0.7	7.6			8	54	38			4.2	3.4	34.0	➤
BMI	18.0												
VI	3.4												
ØAG	33.5°C												
ENI	2.5												
WHR	0.9												
ThI	16.7												
TTI	3.9												
DI	L 5.0	R 2.9											
LI	4.0												
	1	◊	33.6	4.8	7	29	43	21		2.8	6.1	33.7	◊
	2	◊	33.8	6.8	8	54	38			4.2	3.4	34.0	➤
	3	➤	34.6	3.3		43	29	14	14	2.1	7.1	33.8	➤
	4	➤	33.4	4.0	14	29	43	14		3.0	1.6	32.9	◊
	5	◊	34.2	1.9		45	28	18	9	1.9	2.1	33.4	➤
	6	◊	33.8	2.1		50	50			1.5	1.4	32.9	◊
	1-6	◊	33.9	5.5	23	23	5	27	22	2.8	5.6	33.6	➤
	CF	➤	34.7	2.7		50	50			3.0	4.4	34.3	➤

LI	Condition
0-2	Normal reaction & high level of immune function
2-4	Reduced immune function & borderline lymph congestion
4-6	Blocked immune response & high lymph congestion

High LI suggests excess fluid, proteins, & waste build-up resulting in inflammation & an environment favorable to disease

Therapy Index (ThI): describes the level of therapies suitable for the patient based on their health profile

	Body Analysis Readings 1/2												
	Temperature-A				Reaction Profile (%)				Temperature-B				
	Area	SD	T-Tot	CI-A	Hyper	Normal	Hypo	Rigid	Paradox	RI	CI-B	T-Tot	SD
CI-Head	1	◆	33.6	4.8	7	29	43	21		2.8	6.1	33.7	◆
CI-Body	2	◆	33.8	6.8	8	54		38		4.2	3.4	34.0	▶
BMI	3	➤	34.6	3.3		43	29	14	14	2.1	7.1	33.8	➤
VI	4	➤	33.4	4.0	14	29	43	14		3.0	1.6	32.9	◆
ØAG	5	◆	34.2	1.9		45	28	18	9	1.9	2.1	33.4	◀
ENI	6	◆	33.8	2.1		50		50		1.5	1.4	32.9	◆
WHR	1-6	◆	33.9	5.5	23	23	5	27	22	2.8	5.6	33.6	▶
ThI	CF	◀	34.7	2.7		50		50		3.0	4.4	34.3	➤
TTI													
DI	L	5.0	R	2.9									
LI													

ThI	Therapies
7-11	Normal levels
12-16	Take caution with invasive therapies
16-21	In general, invasive therapies are not advisable

If ThI is moderately high to high, precautions should be taken to prepare and stabilize a patient prior to invasive therapies.

# Tumor Terrain Index (TTI) & Dental Index (DI) : are not described at this time & therefore not used in the evaluation of patients at NCNM

