US 20150216423A1

(19) United States

(12) Patent Application Publication

(10) Pub. No.: US 2015/0216423 A1

(43) Pub. Date: Aug. 6, 2015

Beilin

(54) METHOD FOR DIAGNOSING SELECTED CONDITIONS USING THERMOGRAPHY

(71) Applicant: **Daniel Beilin**, Aptos, CA (US)

(72) Inventor: **Daniel Beilin**, Aptos, CA (US)

(21) Appl. No.: **14/173,911**

(22) Filed: **Feb. 6, 2014**

Publication Classification

(51) **Int. Cl.**

A61B 5/01	(2006.01)
A61B 5/20	(2006.01)
A61B 5/00	(2006.01)

(52) **U.S. Cl.**

CPC ***A61B 5/015*** (2013.01); ***A61B 5/682*** (2013.01); ***A61B 5/6822*** (2013.01); ***A61B 5/6823*** (2013.01); ***A61B 5/6824*** (2013.01); ***A61B 5/4845*** (2013.01); ***A61B 5/41*** (2013.01); ***A61B 5/4227*** (2013.01); ***A61B 5/425*** (2013.01); ***A61B 5/4325*** (2013.01); ***A61B 5/201*** (2013.01)

(57) **ABSTRACT**

Disclosed herein is a method of diagnosis for various conditions through use of a thermograph. Body temperatures measured at selected sites on the body observed before and after stimulus present data which when analyzed provides for reliable suspicions for selected conditions. Analysis of data includes several constructed indices and mathematical expressions used diagnose conditions of vulnerabilities to conditions.

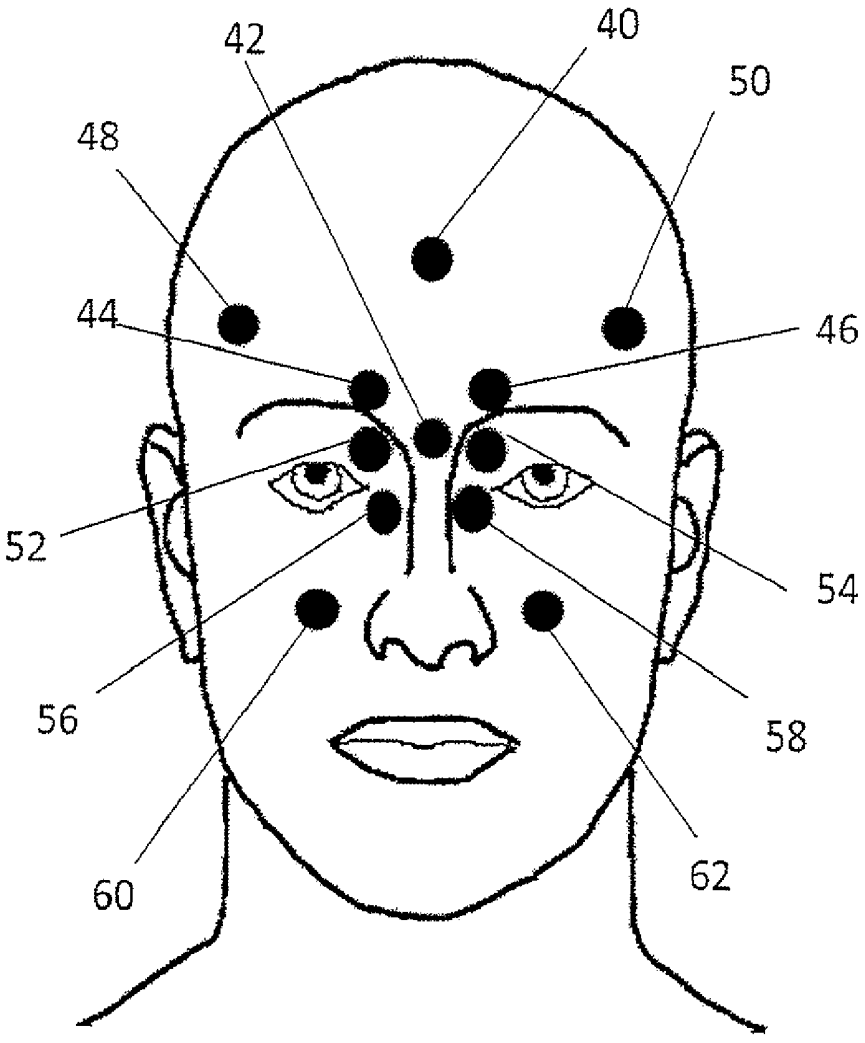

FIG. 1A	FIG. 1B
FIG. 1C	FIG. 1D
FIG. 1E	FIG. 1F

Key to FIG. 1

					Body						
Area	T-xA	DI-A		DI-B	Hyper	Normal	Hypo	Rigid	Paradox	T-Rb	T-Lb	T-xB
1	36.0°	4.4	→	4.4	16.7%	33.3%	0.0%	16.7%	33.3%	36.1°	36.0°	36.1°
2	37.2°	7.0	→	5.2	15.4%	7.7%	15.4%	**30.8%**	30.8%	37.1°	36.7°	36.9°
3	37.2°	2.6	→	4.1	28.6%	42.9%	14.3%	0.0%	14.3%	36.0°	36.1°	36.2°
4	37.4°	2.1	→	2.4	100.0%	0.0%	0.0%	0.0%	0.0%	35.3°	35.2°	35.3°
5	37.2°	3.7	→	4.2	90.9%	9.1%	0.0%	0.0%	0.0%	35.1°	35.4°	35.1°
6	37.0°	3.3	→	4.5	25.0%	75.0%	0.0%	0.0%	0.0%	35.5°	36.0°	35.8°
1-6	37.0°	3.9	→	4.1	46.1%	28.0%	5.0%	7.9%	13.1%	35.9°	35.9°	35.9°
CF	36.6°	2.9	→	4.8	50.0%	25.0%	0.0%	25.0%	0.0%	36.1°	35.0°	35.5°

FIG. 1A

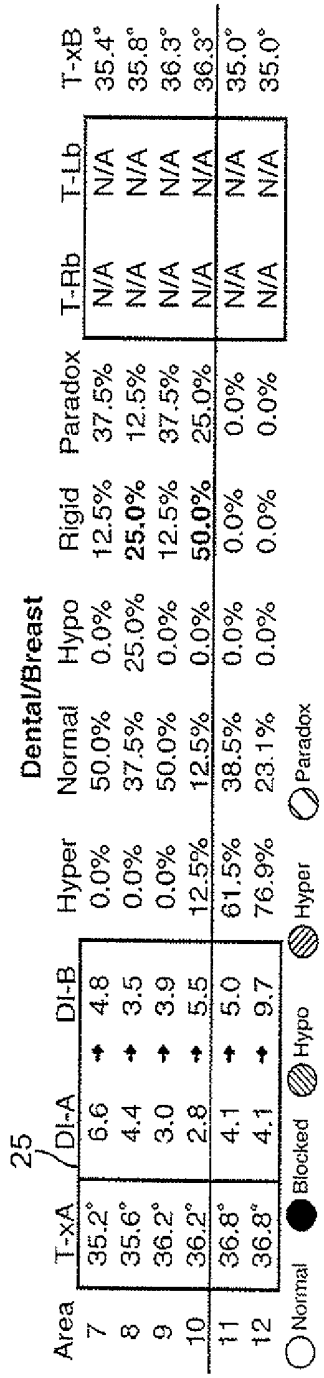
25
Dental/Breast
Area
T-xA
DI-A
DI-B
Hyper
Normal
Hypo
Rigid
Paradox
T-Rb
T-Lb
T-xB
7
35.2°
6.6
4.8
0.0%
50.0%
0.0%
12.5%
37.5%
N/A
N/A
35.4°
8
35.6°
4.4
3.5
0.0%
37.5%
25.0%
25.0%
12.5%
N/A
N/A
35.8°
9
36.2°
3.0
3.9
0.0%
50.0%
0.0%
12.5%
37.5%
N/A
N/A
36.3°
10
36.2°
2.8
5.5
12.5%
12.5%
0.0%
50.0%
25.0%
N/A
N/A
36.3°
11
36.8°
4.1
5.0
61.5%
38.5%
0.0%
0.0%
0.0%
N/A
N/A
35.0°
12
36.8°
4.1
9.7
76.9%
23.1%
0.0%
0.0%
0.0%
N/A
N/A
35.0°
Normal
Blocked
Hypo
Hyper
Paradox

FIG. 1B

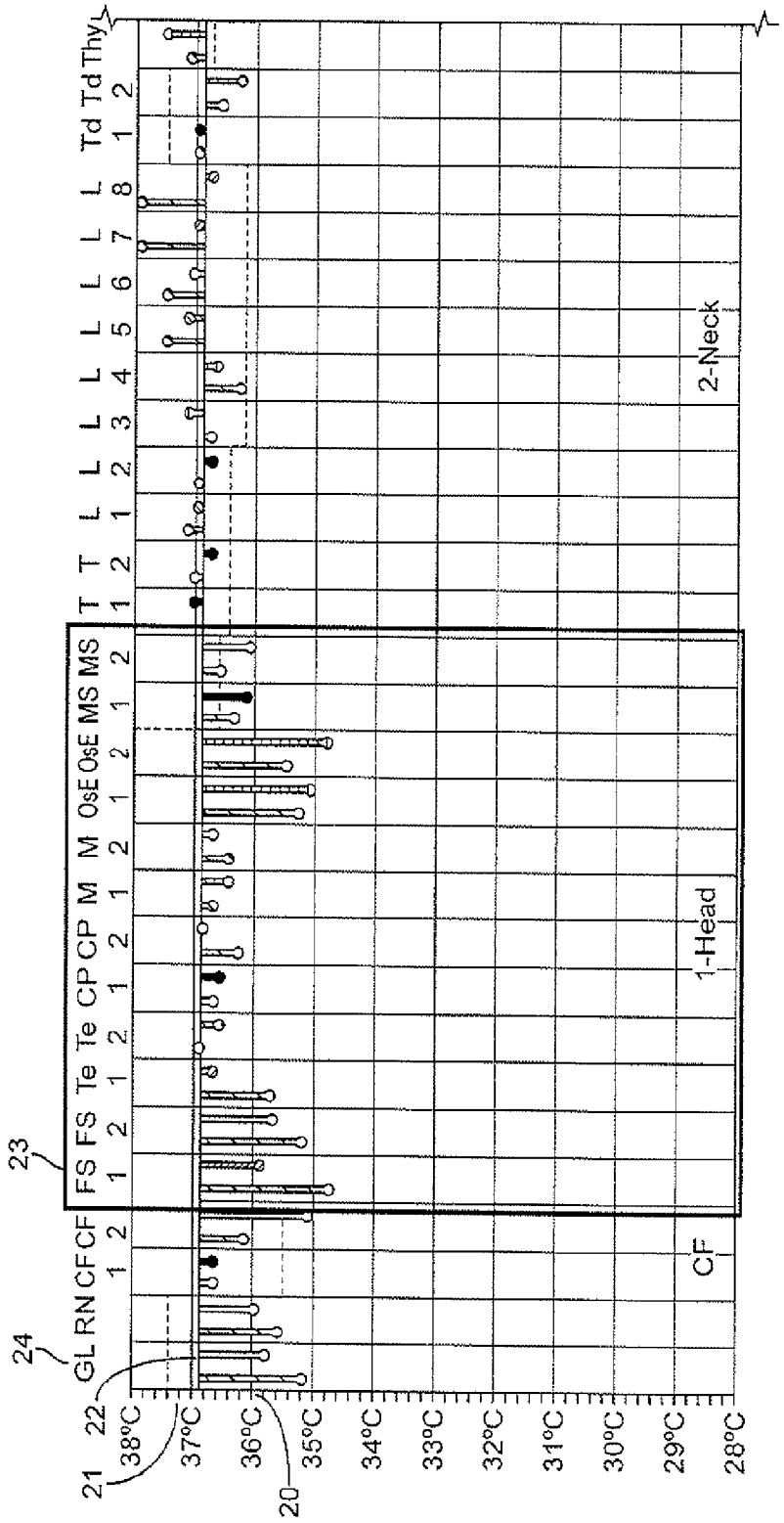
Thy
Td Td
L L L L L L L L
T T
L L L L L L L L
MS MS
OsE OsE
M M
CP CP
Te Te
FS FS
CF CF
RN
GL
2-Neck
1-Head
CF
23
24
22
21
20
38°C
37°C
36°C
35°C
34°C
33°C
32°C
31°C
30°C
29°C
28°C

FIG. 1C

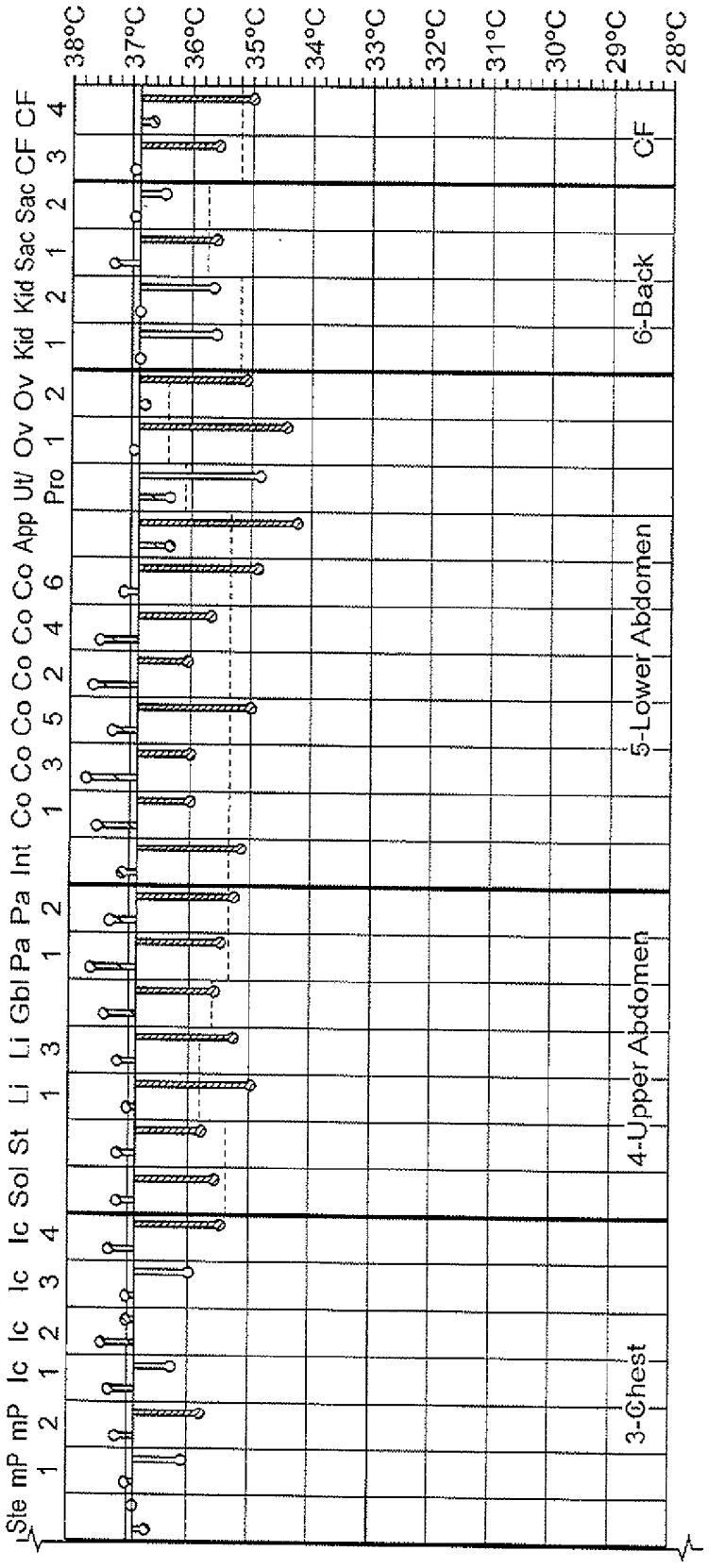
38°C
37°C
36°C
35°C
34°C
33°C
32°C
31°C
30°C
29°C
28°C
Ste mP mP Ic Ic Ic Ic Sol St Li Li Gbl Pa Pa Int Co Co Co Co Co Co App Ut/ Ov Ov Kid Kid Sac CF CF
1 2 1 2 3 4 1 1 3 1 2 1 3 5 2 4 6 Pro 1 2 1 2 3 4
3-Chest
4-Upper Abdomen
5-Lower Abdomen
6-Back
CF

FIG. 1D

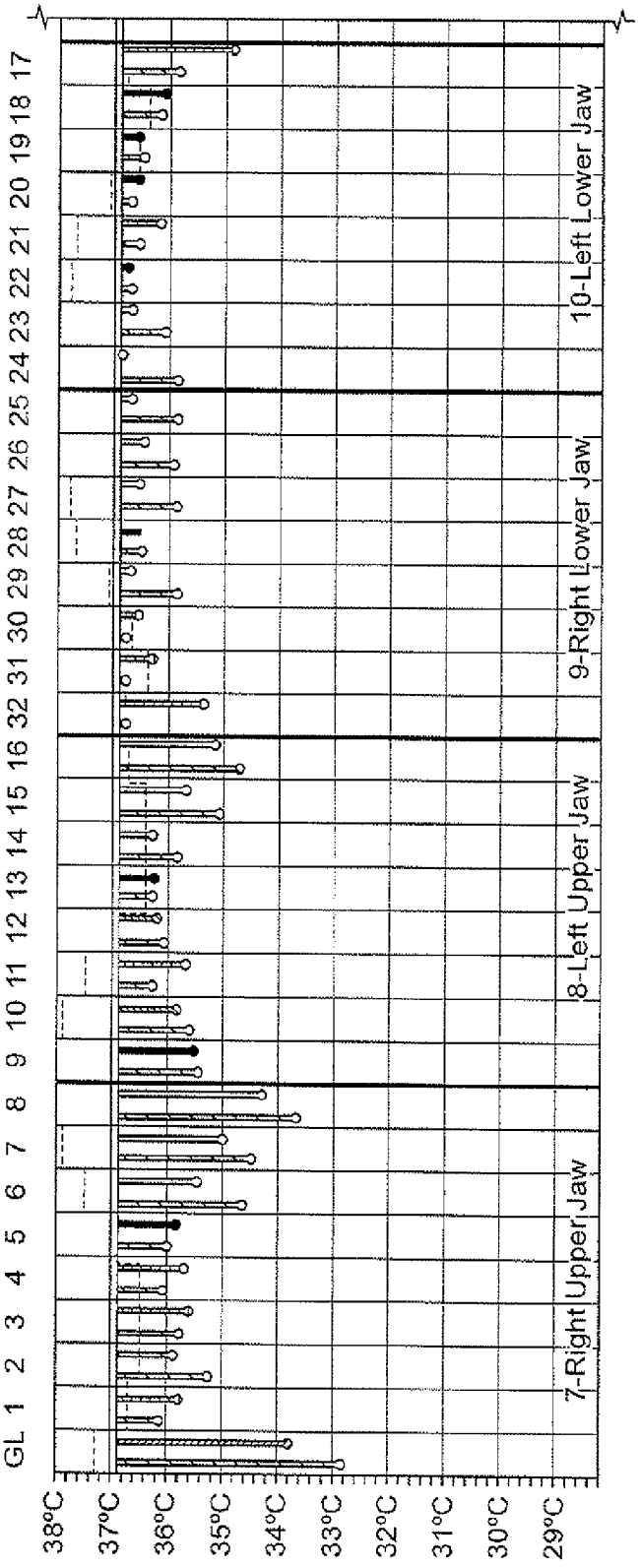
GL 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17
38°C
37°C
36°C
35°C
34°C
33°C
32°C
31°C
30°C
29°C
7-Right Upper Jaw
8-Left Upper Jaw
9-Right Lower Jaw
10-Left Lower Jaw

FIG. 1E

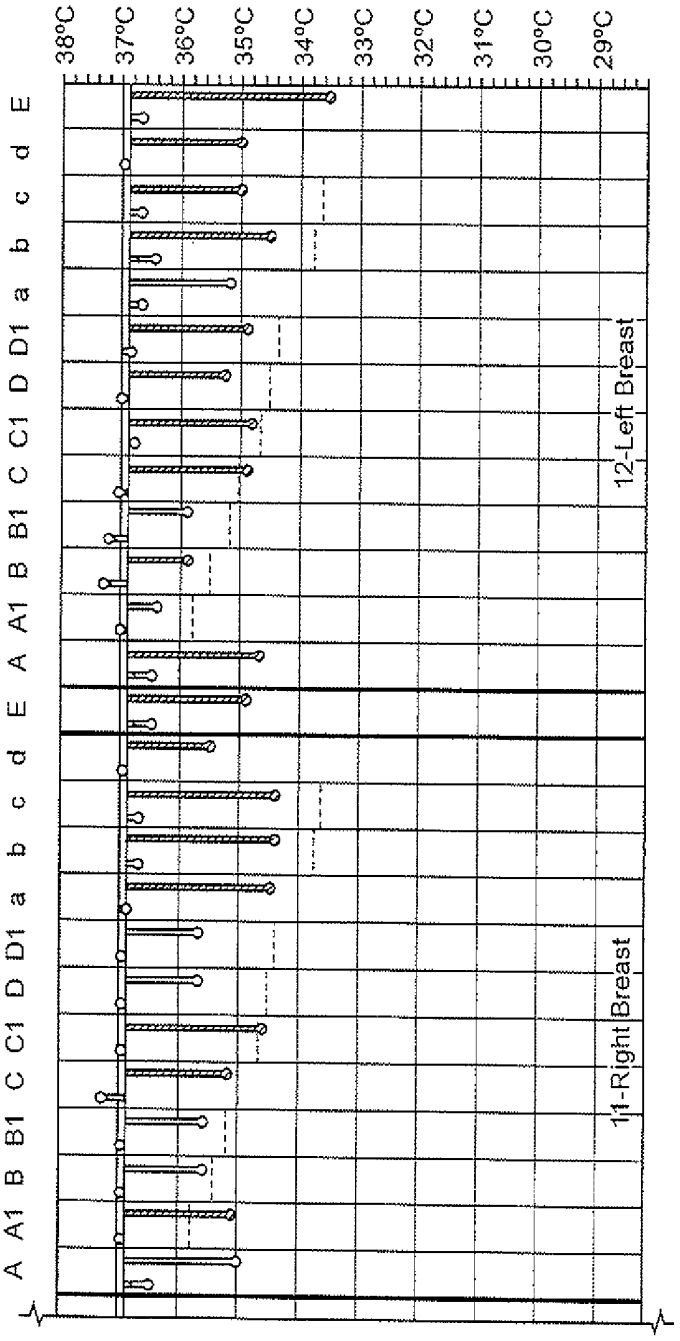
38°C
37°C
36°C
35°C
34°C
33°C
32°C
31°C
30°C
29°C
A A1 B B1 C C1 D D1 a b c d E
A A1 B B1 C C1 D D1 a b c d E
11-Right Breast
12-Left Breast

FIG. 1F

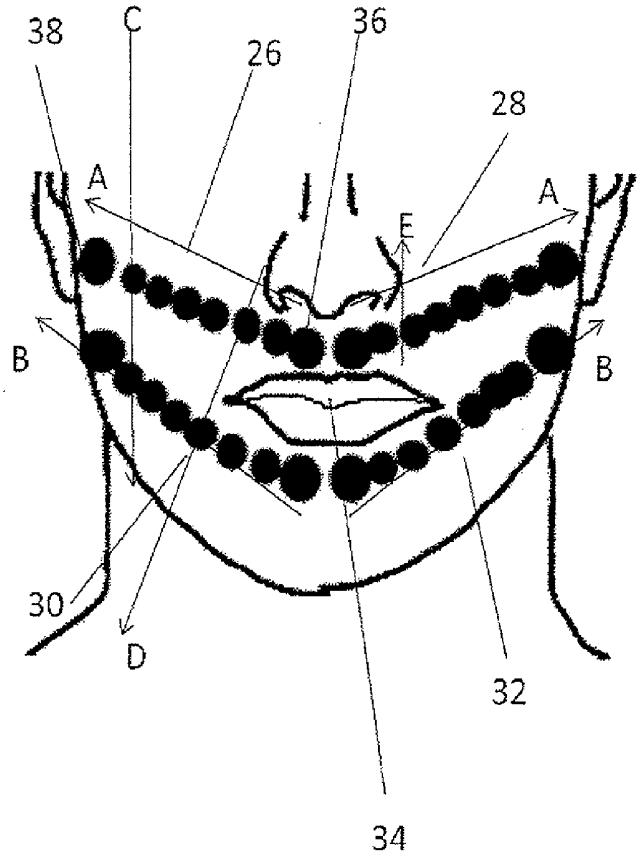

FIG. 2

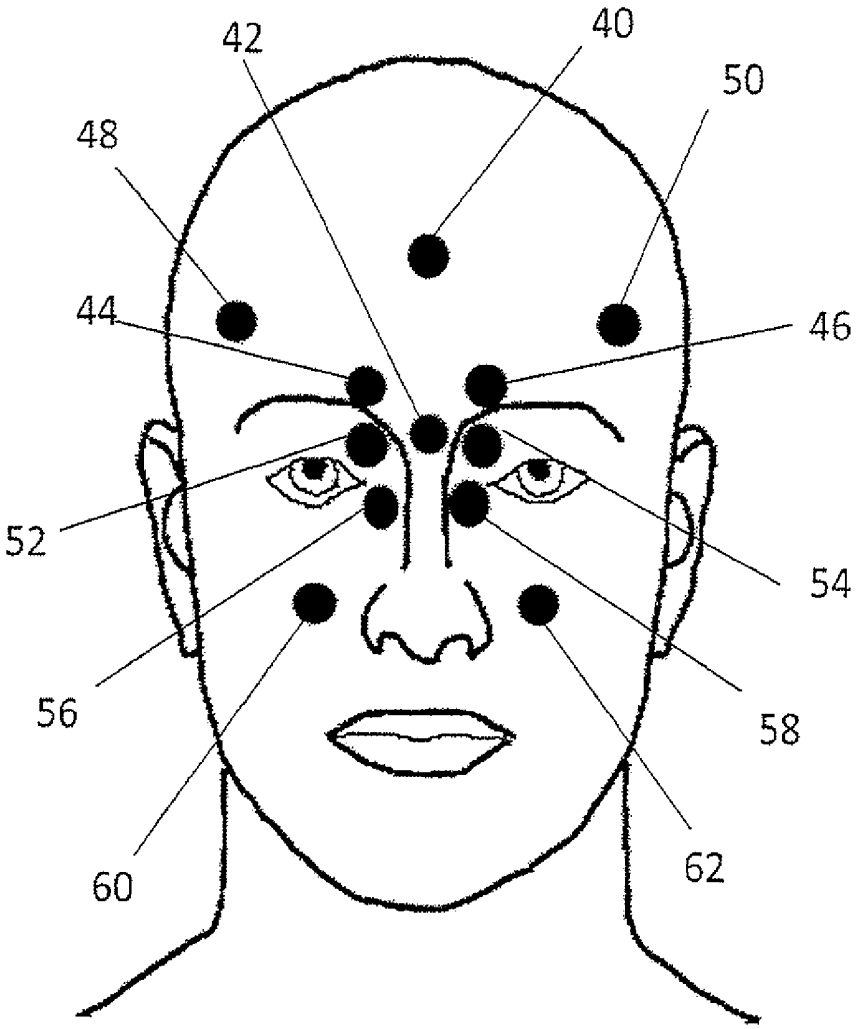

FIG. 3

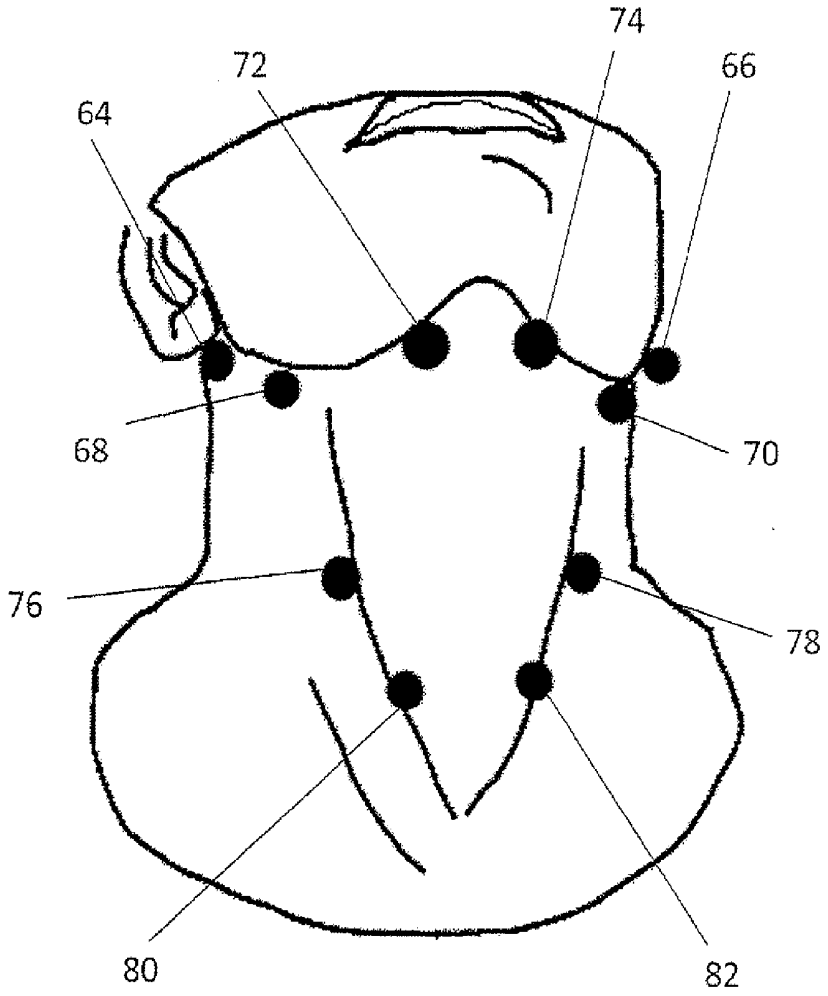

FIG. 4

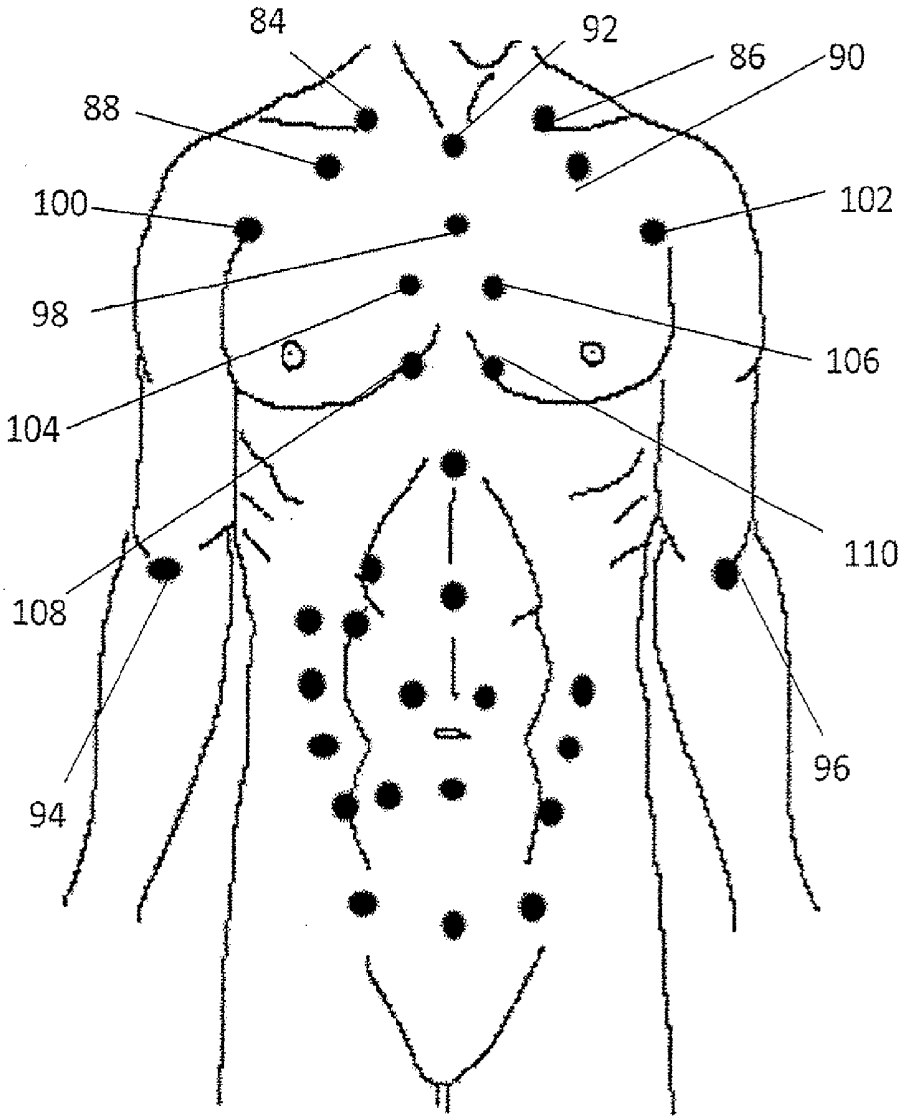

FIG. 5

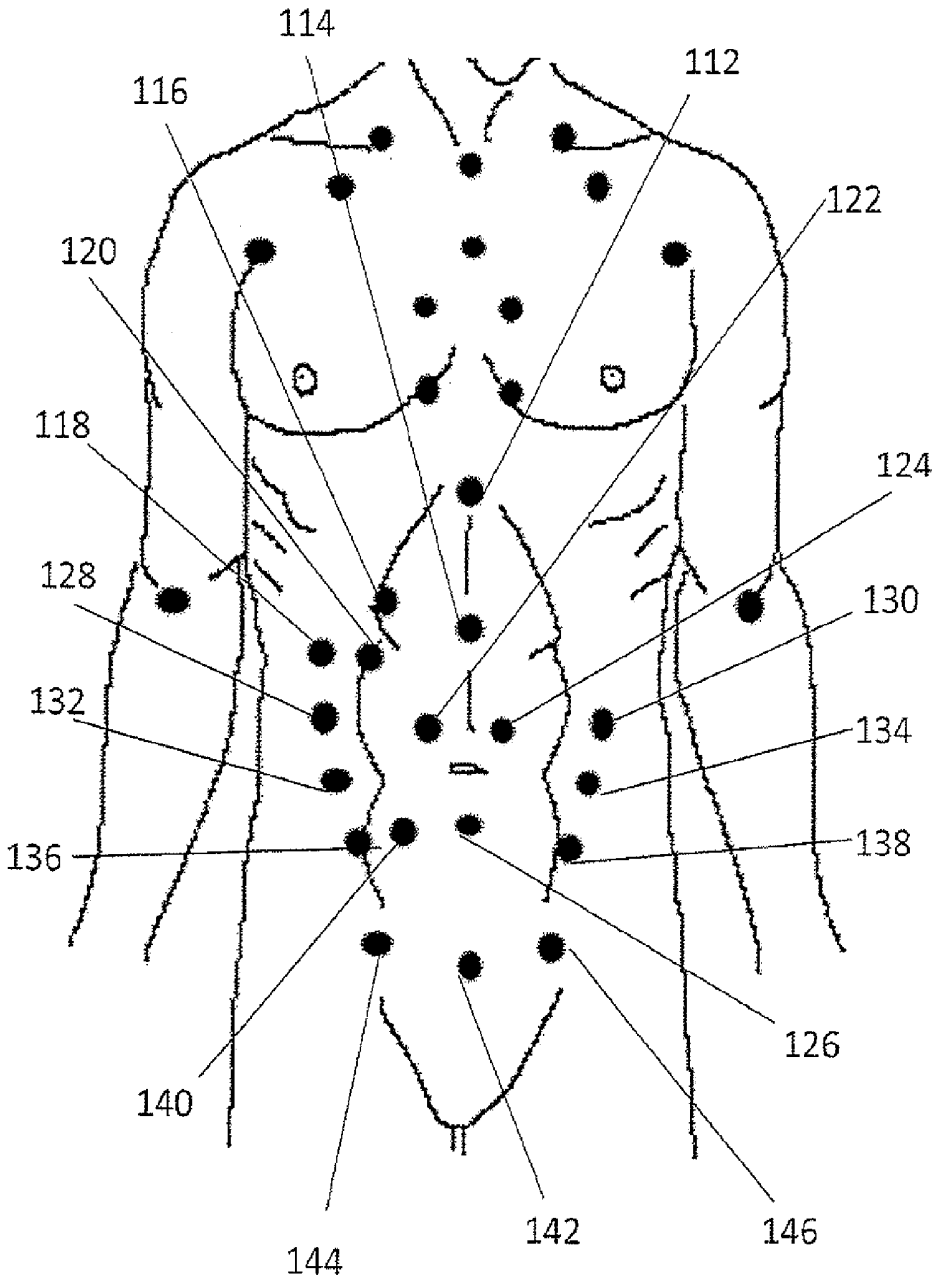
114
112
116
122
120
118
124
128
130
132
134
136
138
126
140
144
142
146

FIG. 6

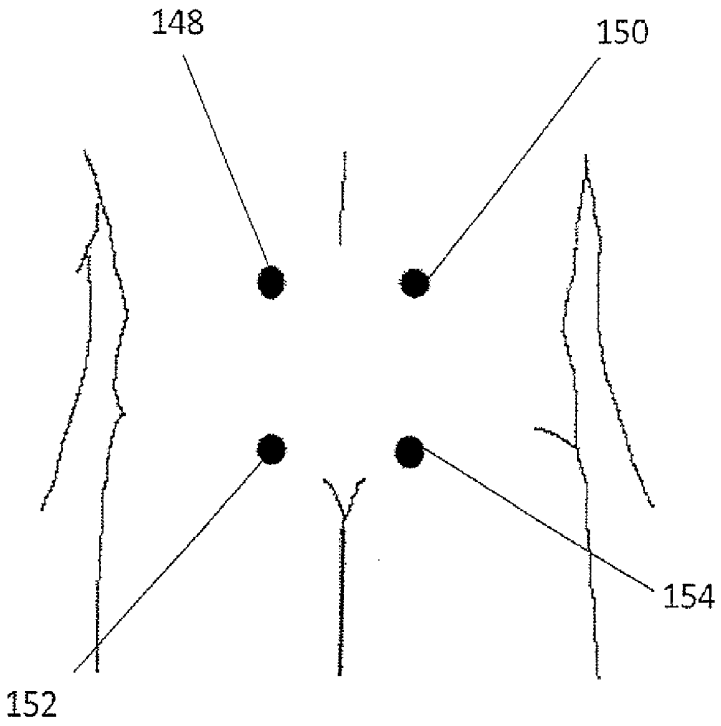

FIG. 7

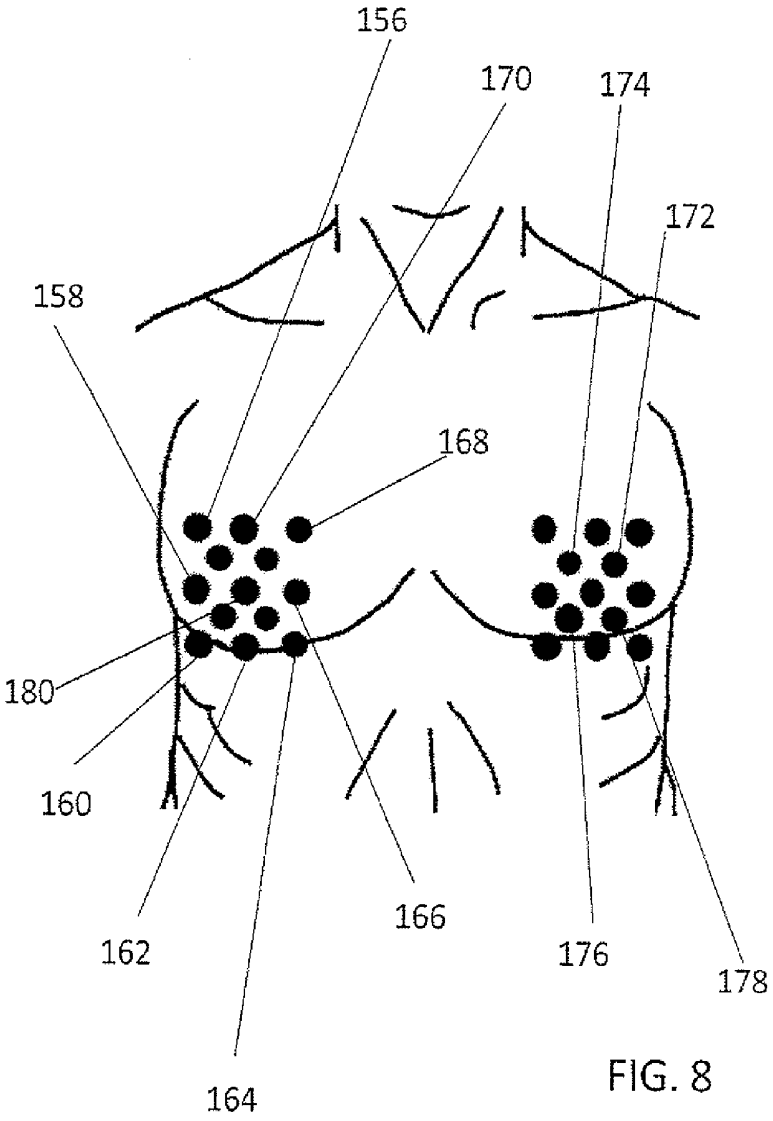

FIG. 8

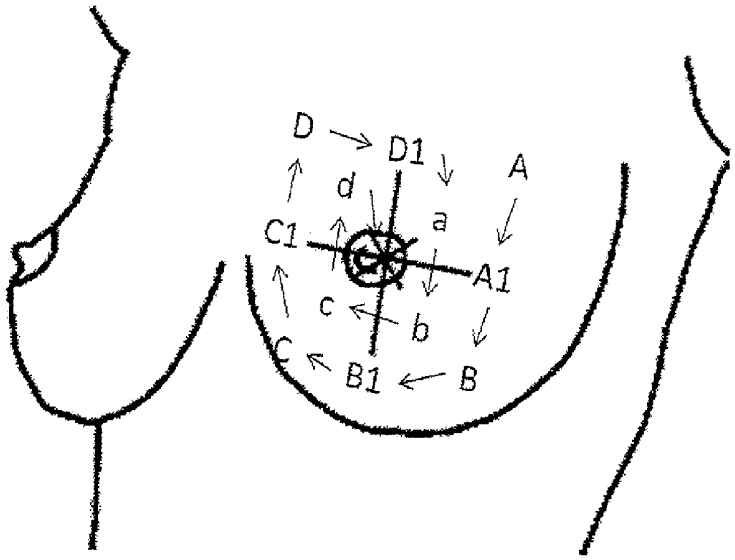

FIG. 9

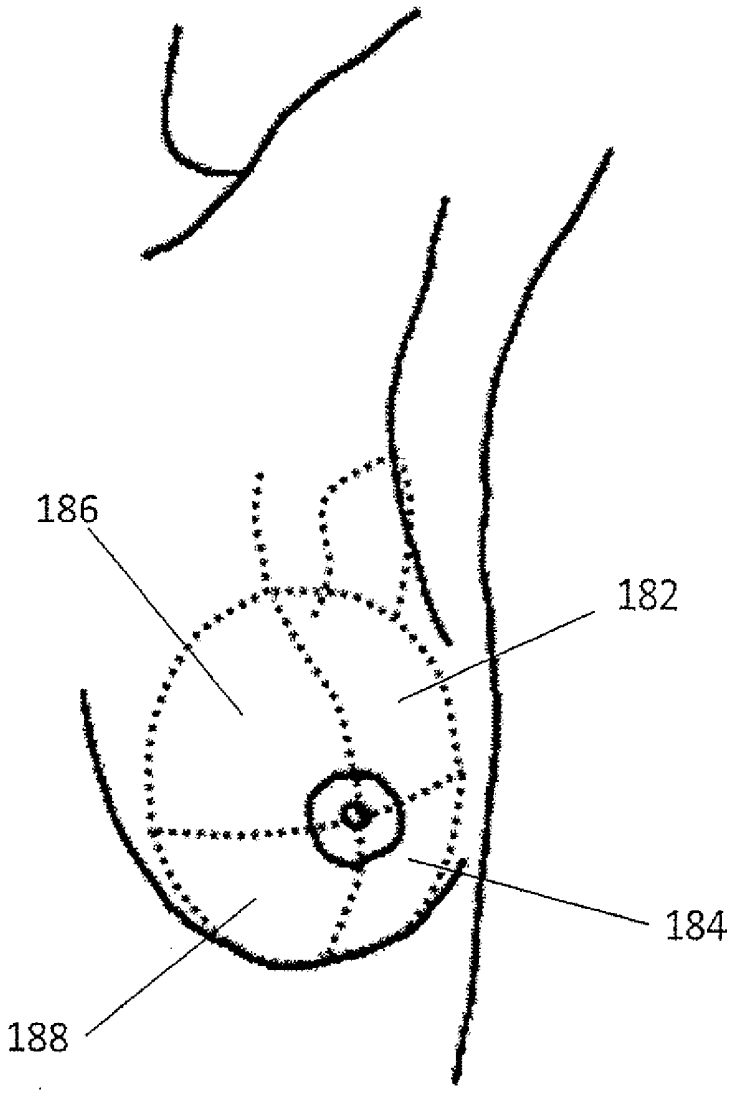

FIG. 10

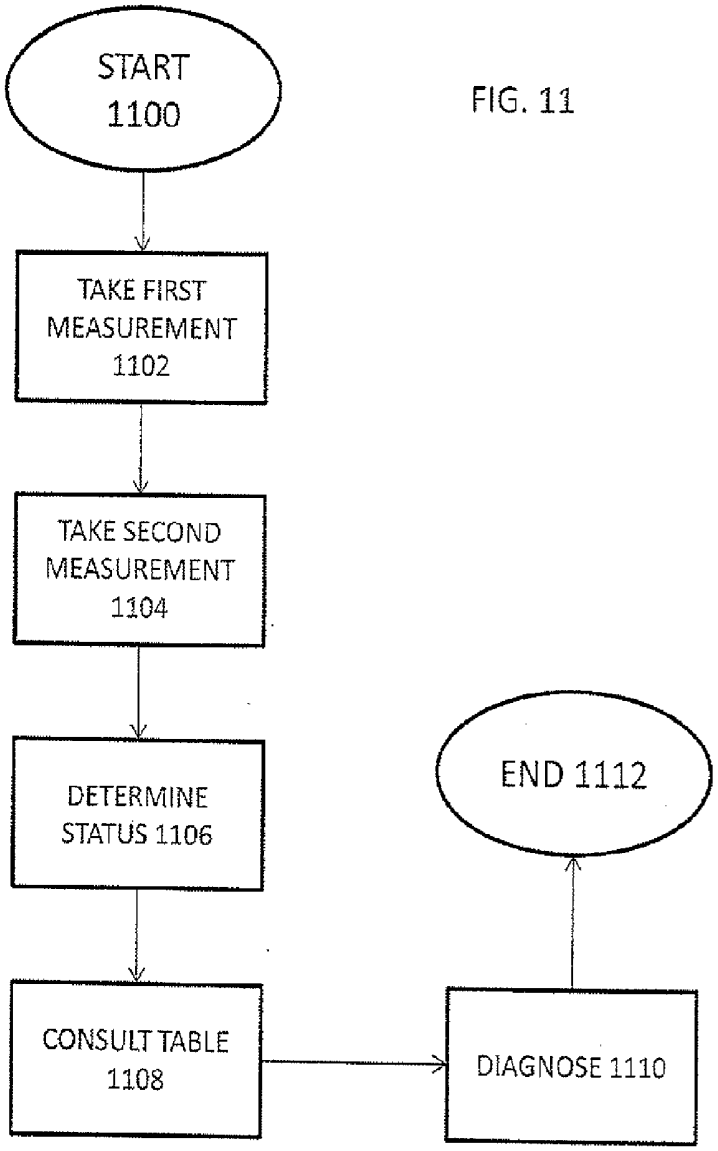
START
1100
TAKE FIRST
MEASUREMENT
1102
TAKE SECOND
MEASUREMENT
1104
DETERMINE
STATUS 1106
CONSULT TABLE
1108
DIAGNOSE 1110
END 1112

FIG. 11

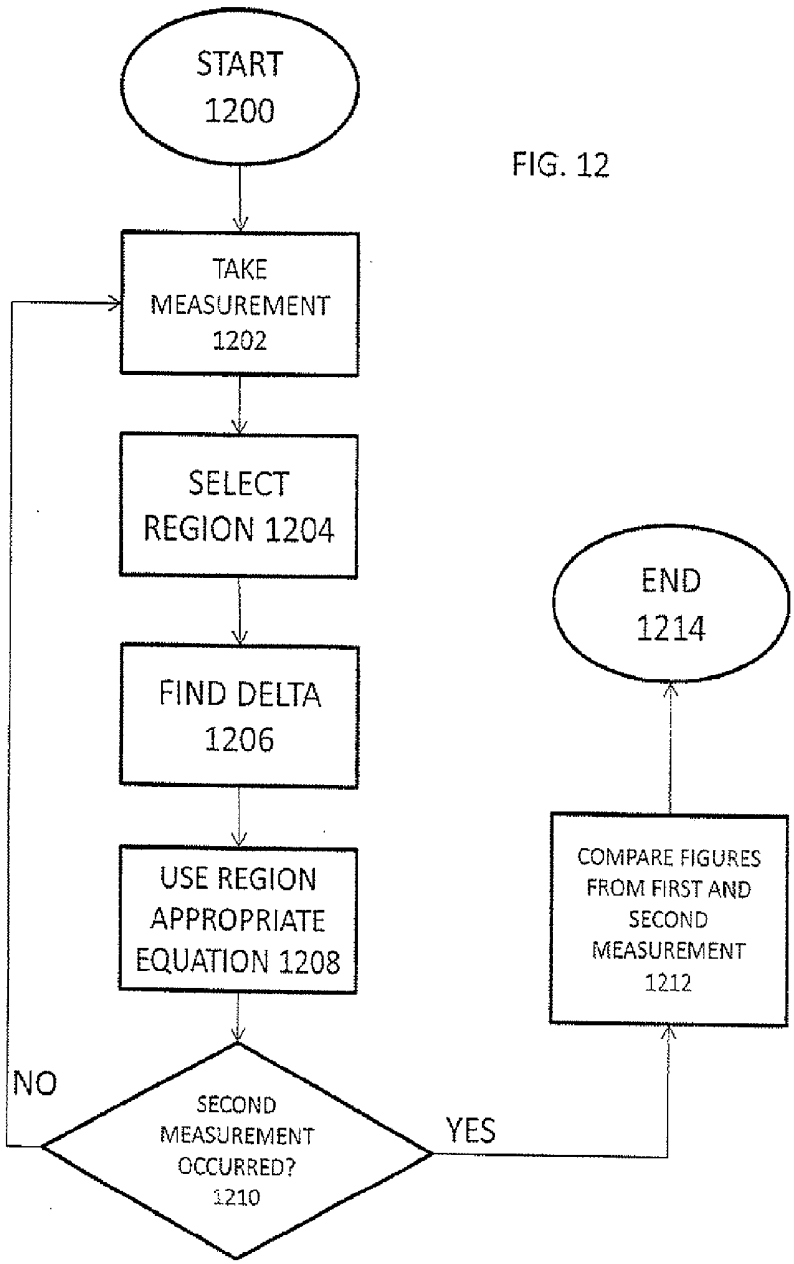
START
1200
TAKE MEASUREMENT
1202
SELECT REGION 1204
FIND DELTA
1206
USE REGION APPROPRIATE EQUATION 1208
SECOND MEASUREMENT OCCURRED?
1210
NO
YES
COMPARE FIGURES FROM FIRST AND SECOND MEASUREMENT
1212
END
1214

FIG. 12

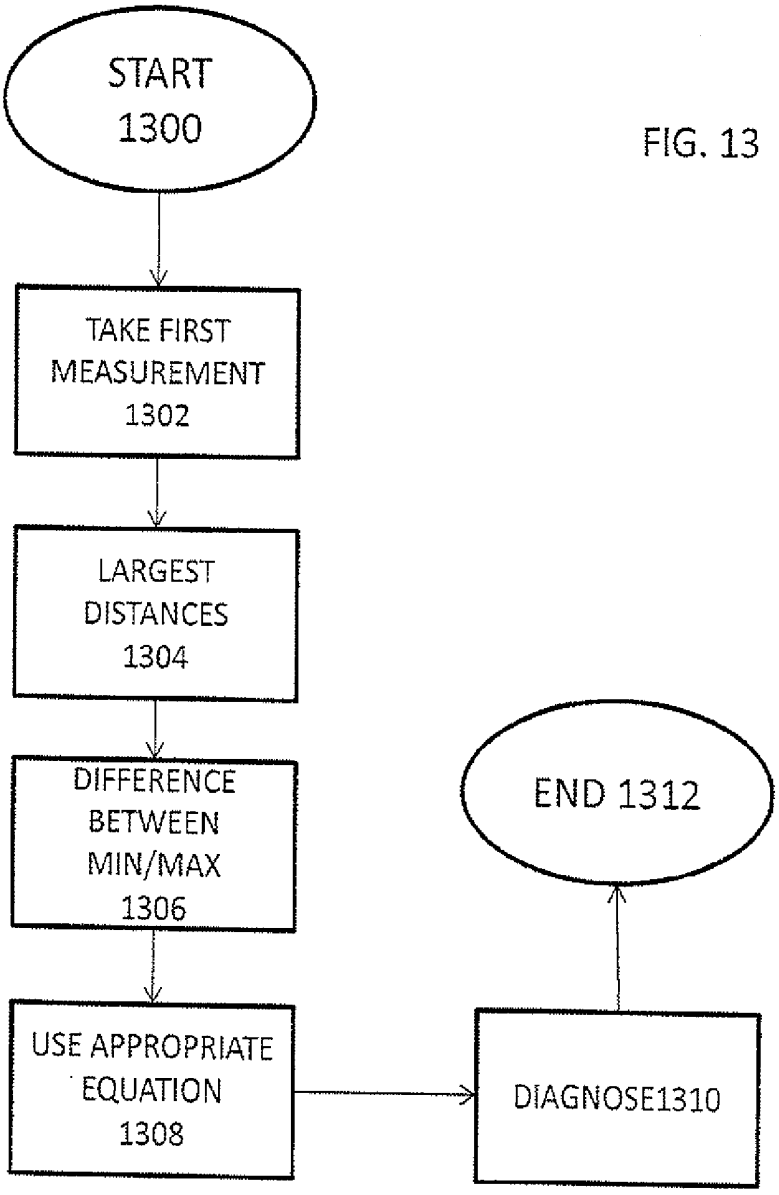
START
1300
TAKE FIRST
MEASUREMENT
1302
LARGEST
DISTANCES
1304
DIFFERENCE
BETWEEN
MIN/MAX
1306
USE APPROPRIATE
EQUATION
1308
DIAGNOSE1310
END 1312

FIG. 13

METHOD FOR DIAGNOSING SELECTED CONDITIONS USING THERMOGRAPHY

FIELD OF THE INVENTION

[0001] The present invention relates to the field of thermographic diagnosis. The present invention, more particularly, relates to the diagnosis of selected conditions which heretofore have not been accurately diagnosed using a thermograph.

INCORPORATION BY REFERENCE

[0002] U.S. patent application Ser. No. 12/028,743 entitled, "Whole Body Infrared Thermography Systems and Methods" is incorporated by reference in its entirety and for all purposes to the same extent as if the patent application was specifically and reprinted here.

BACKGROUND OF THE INVENTION

[0003] Thermography is used for measuring the amount of body heat delivered to the skin from a combination of a person's cellular metabolism and their nervous system in targeted areas of the body. These measurements may be taken from a number of sites on the body. Each site projects body heat for particular internal organs. The amount of heat projected represents the condition of that organ. When conducting thermographic diagnosis, an operator will take a first measurement of temperature data at selected sites then subject the patient to some stimulus. After the stimulus, temperature data is from the selected sites is taken a second time. Comparison of the first and second measurements at selected sites reveals the reaction of various organs to stimulus. That reaction is determinative to the diagnosis of various conditions.

[0004] Presently, many conditions which can be diagnosed by this method are well known and have been conducted by professionals regularly. These known conditions include heavy metal toxicity, cranial structural imbalance, hypothyroid conditions, sinus blockage, auxiliary lymph issues, food intolerance, and many more. Thermographic diagnosis is generally very non-invasive, cheap, and can be accomplished in a relatively short period of time. Therefore, using a thermograph to diagnose conditions is preferable when possible. However, this list of known diagnoses is limited. The thermograph is a dynamic device which has many undiscovered uses.

[0005] Accordingly, there is a need to establish methods for using a thermograph to diagnose a greater number of conditions. The present invention provides the necessary teachings to use a thermograph to diagnose conditions which previously needed to be diagnosed with other, less preferable methods.

SUMMARY OF THE INVENTION

[0006] According to a first aspect of the method of the present invention a thermograph is used to collect temperature data from 120 sites on the body of a patient. The sites are grouped by region on the body. The patient is then asked to disrobe and allow their unclothed bodies adjust to the chill of room temperature. The chill causes a mini fight-or-flight reaction in the patient. A thermograph is once again used to take temperature data at the 120 sites. Each site has an expected normal variance in temperature over the course of the two readings. When sites do not show a normal change they are: blocked, hypo, hyper, or a paradox. Depending on the extent of that status, the status may be rated optimal, minimal, moderate, or severe. Based on the status rating at various sites and comparing that data to models, a technician can diagnose various conditions previously undiagnosable with a thermograph.

[0007] The thermography instrument used to measure temperature at the various sites on the body should be any device suitable to measure temperature of an isolated area of the body to a tenth of a degree. The temperature scale used is less important as long as it is consistent. The device used could be that as disclosed in U.S. patent application Ser. No. 12/028,743. Other thermography devices known in the art are equally acceptable provided that those devices had substantially similar or superior measurement capabilities.

BRIEF DESCRIPTION OF THE DRAWING

[0008] For a further understanding of the objects and advantages of the present invention, reference should be had to the following detailed description, taken in conjunction with the accompanying drawing, in which like parts are given like reference numerals and wherein:

[0009] FIG. **1** is a report of data collected by a thermography device.

[0010] FIG. **2** is a close up of a human mouth demonstrating body sites relating to the teeth.

[0011] FIG. **3** is a portrayal of the human head demonstrating body sites relating to the head.

[0012] FIG. **4** is a close up of a human neck demonstrating body sites relating to the neck.

[0013] FIG. **5** is a portrayal of the human torso demonstrating body sites relating to the upper torso.

[0014] FIG. **6** is a portrayal of the human torso demonstrating body sites relating to the abdomen.

[0015] FIG. **7** is a close up of the human lower back demonstrating body sites relating to the lower back.

[0016] FIG. **8** is a portrayal of the human male breast demonstrating body sites relating to the breast.

[0017] FIG. **9** is a portrayal of the female breast demonstrating the manner in which breast body sites should be measured.

[0018] FIG. **10** is a portrayal of the female breast demonstrating how to find locate body sites on the breast.

[0019] FIG. **11** is a flow chart of the process used to diagnose selected conditions.

[0020] FIG. **12** is a flow chart illustrating the relation of a thermography device to the disorder index **25**.

[0021] FIG. **13** is a flow chart illustrating the relation of a thermography device to the body chemistry vulnerability index.

DETAILED DESCRIPTION OF THE INVENTION

[0022] The invention will now be described in detail. First, with respect to FIG. **1**, where FIG. **1** is a report of data collected by a thermography device, measurements are made twice. Measurements are performed before and after a brief cooling period (suggested 10 minutes) that acts as a mild stress stimulus, thereby inducing regulation through the autonomic nervous system's control of blood circulation to the skin. The report shows an initial reading **20** matched with stimulated reading **22** taken at a plurality of body sites **24**. Though there are at least 120 body sites **24** which can be used in with the method of the present invention, the site identified by element number "24" on FIG. **1** refers to a location on the forehead of a patient. Nothing in this disclosure should be

construed as stating that body sites **24** only refer to this site. Instead the element number refers to all of them. Each body site **24** will be detailed below. The body sites **24** are broken down in thirteen multi-site regions **23**. The region identified by element number "23" refers to the head of the patient, but similarly to the body sites **24**, the element number "23" refers to all of the thirteen multi-site regions.

[0023] By analyzing the skin's thermal responses to stress, insights can be gained into the physiological, functioning health of various systems of the body, in health and disease. After comparing the two measurements a given body site **24** is determined to be normal (the measure change is as expected), hypo (the measured change is less than expected), hyper (the measured change is greater than expected), a paradox (the measured change is opposite of expected), or blocked (little or no change measured). The conditions possible for each body site **24** will be discussed in greater detail below. An accurate test depends upon three criteria: Room Temperature, Test Schedule, and Patient Test Preparations.

[0024] Room temperature should be between 67° F. [19° C.] and 73° F. [23° C.]. If the room is too warm, the number of rigid/blocked sites will increase. Conversely, if too cold, the number of hyper-regulating sites measured will increase. Either case can reduce test accuracy by 40%-80%.

[0025] All tests should be completed before 2:00 P.M. The nervous system is sympathetically vital and responsive from morning to mid-afternoon. This is the optimum period to capture the responses from the autonomic nervous system through controlled, substantially standardized parameters. Accuracy may be reduced up to 30% when the test is performed in the late afternoon or evening.

[0026] The patient should follow all applicable test preparations. The patient should adhere to a given list of test preparations. Elements that aid accuracy include: The patient should wear comfortable, loose-fitting clothing that can be easily removed. The patient should avoid synthetic fibers and tight clothing. Female patients should not wear a bra or remove it at least 15 minutes prior to the test. The patient should not shower or bathe the morning of the test. However, a quick shower using only tepid water is allowable, as is a shower or bath the night before. The patient should refrain from using body sprays, skin creams or lotions, or cosmetics the morning of the test. The patient should not drink coffee, black tea, or caffeinated beverages, and not smoke the morning of the test. The patient should avoid hot food for breakfast, a light breakfast is acceptable. The patient should be hydrated; said patient should drink 12-16 oz of water ½-2 hours before the test. Patients should not exercise the morning of the test. This includes running, yoga, Pilates, etc. Patients should stop taking all non-essential supplements and remedies 24-36 hours prior to the test, but continue all prescription drugs. The patient should refrain from 'regulative' and therapeutic practices within 36 hours prior to the test. This includes acupuncture, bio-energetic treatments, therapeutic massage, classical homeopathy, chiropractic treatments, etc. The patient should refrain from dentistry and dental cleanings at least 3 days prior to the test. Female patients cannot be tested during the first or second day of the menstrual period. The lower abdominal sites warm up and create false readings. Finally the patient should not drink alcohol for at least 24 hours prior to the test.

[0027] Using the data collected, several other figures are constructed. These additional figures are used in diagnosis of selected conditions and vulnerabilities. The first is the baseline temperature **21**. The baseline temperature **21** is the average of all the measurements taken in the initial reading **20** from all the body sites **24** except those pertaining to the breasts and the teeth. Though the format of the report in FIG. **1** is not a subject of this application, the body sites **24** relevant to the baseline temperature **21** are those found in the uppermost of the two rows in FIG. **1**. The baseline temperature **21** is demonstrated on the report in FIG. **1** by the line where all other temperatures are displayed from. For illustrative purposes, in FIG. **1**, the baseline temperature **21** is approximately thirty-seven degrees Celsius. This figure will of course vary between patients. The baseline temperature **21** will be referred to further below with respect to diagnosis.

[0028] Using the data grouped by the multi-site regions **23** an additional figure, known as the disorder index **25**, is constructed known. The disorder index **25** is calculated per region, per data set; thus, there is a disorder index **25** reading for each of the thirteen multi-site regions **23** for both the initial reading **20** and the stimulated reading **22**. The disorder index **25** is a rating system from one through ten. The disorder index **25** is calculated by taking the greatest difference in temperature readings for body sites **24** in a given region **23**, and putting that delta into a mathematical formula specific to each region **23**. If the mathematical formula provides a number greater than ten, ten is used. Table 1 below lists the mathematical formulas by multi-site region **23**.

TABLE 1

1- Head	Disorder index = (9/8)(delta) + 1
2- Neck	Disorder index = (9/4)(delta) + 1
3- Chest	Disorder index = (9/5)(delta) + 1
4- Upper Abdomen	Disorder index = (9/5)(delta) + 1
5- Lower Abdomen	Disorder index = (9/5)(delta) + 1
6- Back region	Disorder index = (9/3)(delta) + 1
7- Right Upper Jaw	Disorder index = (9/4)(delta) + 1
8- Left Upper Jaw	Disorder index = (9/4)(delta) + 1
9- Right Lower Jaw	Disorder index = (9/4)(delta) + 1
10-Left Lower Jaw	Disorder index = (9/4)(delta) + 1
11-Right breast	Disorder index = (90/29)(delta) + 1
12-Left breast	Disorder index = (90/29)(delta) + 1
13-Cubital Fossa	If Delta > 1: Index = (20/9)(delta) + (50/9) If Delta = 1: Index = 7 If Delta < 1: Index = (25/4)(delta) + 1

[0029] A second index used in diagnosis is the body chemistry vulnerability index (BCV). This index is not displayed in FIG. **1**. The result of the BCV is a single number ranging between one and ten. The greater the number of the BCV, the higher the body's risk of infection, or disorder development. The BCV is based upon data collected from six multi-site regions **23** of the body. The multi-site regions **23** includes are: the head, the neck, the chest, the upper abdomen, the lower abdomen, and the back. The body sites **24** that make up these multi-site regions **23** will be detailed below. To calculate the BCV, first find the greatest temperature difference between body sites **24** in each of the above listed regions from either measurement (either the initial measurement **20** or the stimulated measurement **24**). This should result in 6 temperature deltas. Next, amongst those six temperature deltas, identify the greatest difference between deltas. For purposes of brevity, this figure which is the greatest difference between deltas will simply be referred to as "X."

[0030] Based upon the value of X, one of five equations is used to act upon X in order to determine the BCV value. These equations are demonstrated in Table 2 below:

TABLE 2

IF	THEN
1 < X <= 3.6	BCV = 1.25(X) − 0.5
3.6 < X < 4.2	BCV = (5/3)(X) − 2
4.2 <= X <= 5.8	BCV = 1.25(X) − 0.25
5.8 < X < 7	BCV = (5/6)X + (13/6)
7 <= X	BCV = X + 1

[0031] Once a test if performed, the results may suggest the diagnosis of certain selected conditions. Selected conditions as defined by this disclosure comprises: a toxicity index, a deficit in detoxification capability, immune system and body chemistry alert, adrenal stress, autoimmune disease, brain toxicity, thyroid hyperfunction or anomaly, hepatobiliary system stress, enzyme dysfunction/deficiency, Insulin resistance, Pancreas toxicity, pelvic toxicity, endometriosis in women, kidney hypo-function, mastopathy, breast asymmetry, tonsil block, sternum block, 2^{nd} molar block, stomach block, liver block, ovary dysregulation, dental toxicity, and dental foci suspicion. These conditions can be diagnosed in varying severity based upon data reading as seen below in Table 3. Following Table 3 is a description of how to interpret information contained in the table.

TABLE 3

DISORDER AND RECOMMENDATIONS	OPTIMAL	MINIMAL	MODERATE	SEVERE
Toxicity Index (colon, Kidneys, lungs hyper)		If 9 or more of the following sites are hyper: Int, Co 1-6, Ov1, Ov2, Kid1, Kid2, Sac1, Sac2.	If 9 or more of the following sites are hyper: Int, Co 1-6, Ov1, Ov2, Kid1, Kid2, Sac1, Sac2. AND 4 or more of the following sites are hyper: Sol, St, Li1, Li3, Gbl, Pa1, Pa2	If 9 or more of the following sites are hyper: Int, Co 1-6, Ov1, Ov2, Kid1, Kid2, Sac1, Sac2. AND 4 or more of the following sites are hyper: Sol, St, Li1, Li3, Gbl, Pa1, Pa2 AND 4 or more of the following points are hyper: Ste, mP1, mP2, Ic1, Ic2, Ic3, Ic4.
Detoxification Capacity Lack (refers to kidneys, liver, gallbladder, lymph, and colon) Note: a "system block" means that at least one site associated with a particular organ is blocked.	0 or 1 systems blocked	2 systems blocked	3 systems blocked	4 systems blocked
Immune System and Body Chemistry Alert	BCV and immune index are both less than 5 or if only one is less than or equal to 5	If both BCV and Immune index are greater than or equal to 5, but both less than 7.	Either BCV or immune index is greater than or equal to 7 and less than or equal to 9 and other is greater than or equal to 6	Either BCV or Immune index is greater than or equal to 9, and the other is greater than or equal to 8.
Adrenal Stress Index	none	Difference between initial reading of warmest tooth and coldest tooth (over all 32 teeth sites) >= 3	Difference between initial reading of warmest tooth and coldest tooth (over all 32 teeth sites) >= 4	Difference between initial reading of warmest tooth and coldest tooth (over all 32 teeth sites) >= 5
Autoimmune Indication (regions: Chest, Upper and lower Abdomen, and back)	100% hyper in 1 or less listed regions	100% hyper in 2 listed regions	100% hyper in 3 listed regions	100% hyper in all 4 listed regions
Brain Toxicity (Refers to sites FS1, FS2, Te1, and Te2)	Half or less sites' stimulated reading is at or below initial reading +/− 0.1	3 sites' stimulated reading is at or below initial reading +/− 0.1	All 4 sites' stimulated reading is at or below initial reading +/− 0.1	All 4 sites' stimulated reading is greater than 0.3 below initial reading.
Thyroid		Initial reading for Td1 and Td2 less than baseline temp AND Stimulated reading of either Td 1 or 2 is less	Initial reading for Td1 and Td2 less than baseline temp AND Stimulated reading of either Td 1 or 2 is less than or equal to baseline temp minus	Initial reading for Td1 and Td2 less than baseline temp AND Stimulated reading of both Td 1 and 2 is less than or equal to baseline temp minus

TABLE 3-continued

DISORDER AND RECOMMENDATIONS OPTIMAL	MINIMAL	MODERATE	SEVERE
	than or equal to baseline temp minus 0.4 and remaining site is less than or equal to baseline temp minus 0.2	0.7 and remaining site is less than or equal to baseline temp minus 0.4	1
Heptobiliary	1 of 3 of Li1, Li3, Gbl blocked or paradox OR 1 of 3 of above sites initial reading is less than baseline temp plus 1.7	2 of 3 of Li1, Li3, Gbl blocked or paradox	Li1, Li3, Gbl all blocked or paradox
Enzyme Dysfunction	Pa1 initial reading less than baseline temp minus 1.4 OR Pa1 initial value greater than baseline temp plus 0.4 AND Pa1 is blocked or paradox	Pa1 initial reading is greater than baseline temp plus 0.8 AND Pa1 is hypo, blocked, or paradox	Pa1 is blocked or paradox AND Pa1 initial reading is less than baseline temp minus 1.4 OR Pa1 initial reading is greater than baseline temp plus 1.5 AND Pa1 is hypo, blocked or paradox
Insulin Resistance	Pa2 initial reading is 1.5-1.9 below baseline temp	Pa2 initial reading is less than or equal to baseline temp minus 2 OR Pa2 is blocked (0.1 degree variation is acceptable).	Pa2 initial reading is less than or equal to baseline temp minus 2 OR Pa2 is blocked (0.1 degree variation is acceptable) AND Pa2 initial reading is less than baseline temp minus 2
Pancreas Toxicity	Pa1 or Pa2 where the difference between initial reading and stimulated reading is greater than 1.3	Pa1 or Pa2 where the difference between initial reading and stimulated reading is greater than 1.8	Pa1 or Pa2 where the difference between initial reading and stimulated reading is greater than 2.2
Pelvic Toxicity (Endometriosis)	Amongst Ut/pro, Ov1, and Ov2, two of the three cool more than 2 degrees from initial to stimulated reading	Amongst Ut/pro, Ov1, and Ov2, two of the three cool more than 2.9 degrees from initial to stimulated reading	Amongst Ut/pro, Ov1, and Ov2, all three cool more than 2.9 degrees from initial to stimulated reading
Kidney Hypo-function	Kd1 OR Kd2 initial reading is below baseline temp by 1.4-1.7	Kd 1 OR Kd2 initial reading is below baseline temp by more than 1.7	Kd1 AND Kd2 initial reading is below baseline temp by more than 1.5
Organ-Tissue Influence Distant/Related Focal			

[0032] Explanations on how to find the body sites **24** and how to read the shorthand in Table 3 will now follow. With respect to FIG. **2**, there is shown a close up of a human mouth demonstrating body sites relating to the teeth. The teeth are divided into four dental areas, or quadrants. Each quadrant is measured one at a time with 8 measurements per quadrant. The quadrants are measured in the following order: (1) upper-right quadrant **26**, (2) upper-left quadrant **28**, (3) lower-right quadrant **30**, and (4) lower-left quadrant **32**. Each of these quadrants represents a region for the disorder index **25**. The teeth are measured with the mouth closed **34**. Measurements of each quadrant begin on the skin and at the gumline over the central incisor (front tooth) **36** progressing back towards the skin over the back molars **38**. If a thermograph device which is not site specific is used to take measurements, a single measurement which includes all these sites is sufficient. To understand Table 3 and the data sheet as pictured in FIG. **1**, each tooth body site **24** has been given a number designation, 1-32. The number in each quadrant where the upper-right quadrant **26** includes teeth 1-8 in descending order, the upper-left quadrant **28** includes teeth 9-16 in ascending order, the

lower-right quadrant **30** includes teeth 25-32 in ascending order, and the lower-left quadrant **32** includes teeth 17-24 in descending order.

[0033] All teeth sites must be measured, even if one or more teeth have been extracted or there are root canals, bridges, or implants. Reflections of the retromolar space as well as latent infections due to cavitations can be crucial in particular case analyses. When measuring the upper quadrants, each site resides along the line from the middle of the philtrum to the tragus (Line A), with the final site falling along the anterior edge of the masseter muscle (Line C). It is helpful to make a small mark with a felt pen in front of the masseter muscle and plan that mark to be the last site of measurement for the quadrant. The line of measurement of the teeth is a straight line and each site has a circumference that is sequentially contiguous with the next site in the quadrant. For the lower quadrants, each site resides along the line from the central incisor, just above the jaw bone, to the earlobe (Line B). The first four dental sites are about ¼-⅜ in apart [⅝-1 cm], and are usually located before the mouth crease, with the fourth tooth (first premolar) on the nasolabial fold (Line D). The last four teeth are about ⅜-½ in apart [1-1¼ cm], with the last tooth just in front of the masseter muscle (Line C). Also, for the upper quadrants **26** and **28**, the third tooth (canine) is usually located along the vertical edge of the nasal wing (Line E). Dental sites are measured on the skin over the area where the tooth enters the gums.

[0034] With respect to FIG. **3**, there is shown portrayal of the human head demonstrating body sites relating to the head and the head region as referred to in Table 1. There are twelve body sites **24** on the head in addition to the thirty-two teeth sites. The first site is the glabella, abbreviated "GL" **40**. This measuring spot is on the forehead, in the center, about ⅓ the distance from the frontal eminence to the top of the forehead, in a small indentation. The glabella is measured 3 times in a row at the beginning of the test, and only one time at the start of the second set of measurements. The next site is the Radix Nasi, abbreviated "RN" **42**. RN **42** is found in the center of bridge of the nose, in the lowest part of the bridge. The next site(s) are parts of the frontal sinus, and are symmetrical sites which are abbreviated "FS**1**" **44** and "FS**2**" **46**. The frontal sinus sites are located just above the medial (innermost) edge of the eyebrow. The next set of sites are the temples, and are symmetrical sites which are abbreviated "TE**1**" **48** and "TE**2**" **50**. Dividing the temple into thirds front-to-back, these sites lay on the front third dividing line and in the middle of the temple vertically. The next set of sites are the commissura palpabrum, and are symmetrical sites which are abbreviated "CP**1**" **52** and "CP**2**" **54**. The commissura palpabrum sites are found in the corner soft-tissue depression above the inner canthus of the eye, below the medial edge of the eyebrow, and angled up and medially toward the Glabella. The next set of sites are the ethmoid sinus, and are symmetrical sites which are abbreviated "OsE**1**" **56** and "OsE**2**" **58**. On the side of the bridge of the nose, at the small depression just above where eyeglasses usually sit. The last set of sites on the head are the maxillary sinuses, and are symmetrical sites which are abbreviated "MS**1**" **60** and "MS**2**" **62**. The maxillary sinuses are found at the intersection of a vertical line directly down from the pupil of the eye and the horizontal line of the side of the nostril, on bottom edge of the cheekbone.

[0035] With respect to FIG. **4**, there is shown a close up of a human neck demonstrating body sites relating to the neck. This figure shows the majority of the sites relating to the neck region as referred to in Table 1. The first set of sites are the mastoids, and are symmetrical sites which are abbreviated "M**1**" **64** and "M**2**" **66**. Behind the earlobe and directly on top of the mastoid bone. The next set of sites are the tonsils, and are symmetrical sites which are abbreviated "T**1**" **68** and "T**2**" **70**. The tonsils are found under the end of the lower jaw, in the soft tissue. This is best found at the apex of the angle of the lower jaw, underneath, in the soft tissue. The next set of sites are the inframandibular lymph nodes, and are symmetrical sites which are abbreviated "L**1**" **72** and "L**2**" **74**. The inframandibular lymph nodes are found in the soft tissue below the central lower jaw, midway between the angle of the jaw and the chin. The next set of sites are the ventro sternocleidomastoids, and are symmetrical sites which are abbreviated "L**3**" **76** and "L**4**" **78**. The ventro sternocleidomastoids are found at the front of the sternocleidomastoid muscle, in the center of its full length. The final set of sites in the neck region is the thyroids, and are symmetrical sites which are abbreviated "Td**1**" **80** and "Td**2**" **82** The thyroid is found ⅜ in [1 cm] lateral the midline, on the thyroid gland ¾ in [2 cm] above the depression at the suprasternal notch, about ¼-⅓ distance of neck, to the side of the center line in front of the sternocleidomastoid muscle.

[0036] Referring now to FIG. **5**, there is shown a depiction of the human torso demonstrating body sites relating to the torso. The first set of sites are the supraclavicular fossa, and are symmetrical sites which are abbreviated "L**5**" **84** and "L**6**" **86**. The supraclavicular fossa are found In the middle of the depression above the medial end of clavicle. The patient can move shoulders slightly forward to see this depression clearly. The next set of sites are the infraclavicular fossa, and are symmetrical sites which are abbreviated "L**7**" **88** and "L**8**" **90**. The infraclavicular fossa are found below the lateral end of the clavicle, in the depression. The patient can move shoulders slightly forward to see this depression clearly. The next site is the *thymus*, and it is abbreviated "Thy" **92**. The *thymus* is found directly in the fossa above the sternum (above the suprasternal notch), forming a downward-facing triangle with thyroid sites. These above sites, though found on FIG. **5** are also included in neck region as referred to in Table 1.

[0037] The next set of sites show on FIG. **5** are the cubital fossa, and are symmetrical sites which are abbreviated "CF**1**, **3**" **94** and "CF**2**,**4**" **96**. The cubital fossa are found at the inside crease of the elbow. The sites **94** and **96** should not be measured on top of a vein, always to either side but it is good to mark this site as it is crucial to repeat at the same location later in the testing procedure (hence two numbers in each abbreviation). The Cubital Fossa are their own region for purposes of Table 1.

[0038] The next site shown on FIG. **5** is the sternum, and is abbreviated "Ste" **98**. The sternum site is found on the breastbone, at the boney protrusion exactly on the center line, ⅓ the distance downward from the suprasternal notch to the xyphoid process. The next set of sites are the lateral pectoralis major muscles, and are symmetrical sites which are abbreviated "mP**1**" **100** and "mP**2**" **102**. The lateral pectoralis major site is found above the frontal end of axillary fold, ½-1 in [1½-2½ cm] above the crease on each side. The next set of sites are known as the intercostal space III, and are symmetrical sites which are abbreviated "Ic**1**" **104** and "Ic**2**" **106**. The intercostal space III is found at the third intercostal space, between the 3rd and 4th ribs, about 1¼ in [3 cm] from the center line. The next set of sites are known as the intercostal space V, and are symmetrical sites which are abbreviated

"Ic**3**" **108** and "Ic**4**" **110**. The intercostal space V is found at the fifth intercostal space, between the 5th and 6th rib, 1¼ in [3 cm] from the center line. The sites discussed in this paragraph are affiliated with the chest region as referred to in Table 1.

[0039] With particular reference to FIG. **6**, it is understood that in general it is the same as FIG. **6** with the exception that this illustration it is directed to the lower body sites **24** affiliated with the upper and lower abdomen regions as referred to in Table 1. First, this disclosure will go over the sites included in the upper abdomen. The first upper abdomen site is the solar plexus, and it is abbreviated "So**1**" **112**. The solar plexus site is found centered below the tip of the xyphoid process (cartilage extending from the lower meeting site of the ribs and sternum). The next site on the upper abdomen is the stomach, and this site is abbreviated "St" **114**. The stomach site is found half way between the xyphoid process and navel, on the center line. The next site is the first liver site, and is abbreviated "Li**1**" **116**. The liver site is found at the right sub-costal border, 2 in [5 cm] lateral from the center line. The next site is the second liver site and is abbreviated "Li**3**" **118**. The second liver site is found at the right sub-costal border, 3½ in [9 cm] lateral from Li**1** **116**. The next site is the gall bladder, and is abbreviated "Gb**1**" **120**. The gall bladder site is found between both liver sites and downward 2 in [5 cm] below the middle of the liver sites, forming an equilateral triangle. The next set of site are the pancreas head and tail, and are symmetrical sites which are abbreviated "Pa**1**" **122** and "Pa**2**" **124**. The Pancreas sites are located two-thirds the way from the stomach site and navel, 1½ in [3½ cm] lateral the center line, on either side.

[0040] Still referring to FIG. **6**, the following sites are affiliated with the lower abdomen region as referred to in Table 1. The first lower abdomen site is the intestine and is abbreviated "Int" **126**. The intestine site is located 1½ in [3½ cm] below the navel on the center line. There are six sites for the colon. The first pair of colon sites are abbreviated "Co**1**" **128** and "Co**2**" **130**. The first two colon sites are symmetrical and are found directly below the nipple, 1½ in [3½ cm] under the costal border. The second pair of colon sites are abbreviate "Co**3**" **132** and "Co**4**" **134**. The second pair of colon sites are symmetrical and are found 2-3 in [5-7½ cm] directly below the Co**1/2** **128/130** site and nipple, level with the navel. The last pair of colon sites are abbreviated "Co**5**" **136** and "Co**6**" **138**. The last pair of colon sites are symmetrical and are found Directly below the Co**1/2** **128/130** and Co**3/4** **132/134** sites, about 2 in (5 cm) below Co**3/4**, level with the anterior iliac crest.

[0041] The remaining lower abdomen sites are found on FIG. **6**. The next site is for the appendix and is abbreviated "App" **140**. The appendix site is located in the middle of the area between prominence of the hip bone (anterior iliac crest) and the navel. The next site is based on gender but is located in the same location regardless. This site is either for the uterus or the prostate and is abbreviated "Ut/Pro" **142**. The uterus or prostate site is located on the center line, directly above pubic bone and hairline. The location of the last two sites differ between males and females, though the abbreviations remain the same. In females, the last set of sites refer to the ovaries, and are symmetrical sites abbreviated by "Ov**1**" **144** and "Ov**2**" **146**. The ovary sites are located 1 in [2½ cm] above the uterus/prostate site and 2 in [5 cm] out from the center line. In men, the sites with the same abbreviations are for the inguinal lymph, and these sites are found at the inguinal crease at the groin area at the same level as the prostate site.

[0042] With particular reference to FIG. **7**, there is illustrated a close up of the human lower back demonstrating body sites relating to the lower back and are affiliated with the back region as referred to in Table 1. The lower back region has 2 pairs of symmetrical sites. The first set is for the kidney, and the symmetrical sites are abbreviated "Kid**1**" **148** and "Kid**2**" **150**. The kidney sites are found below the last rib, about 2 in [5 cm] from the center of the spine. The second pair of sites are at the sacroiliac joint and are abbreviated "Sac**1**." **152** and "Sac**2**" **154**. The sacroiliac joint sites are found on the lower back, in the small indentation (dimple) on the superior aspect of the sacrum, about 2 in [5 cm] out from the midline.

[0043] With particular reference to FIG. **8**, there is illustrated a portrayal of the human male breast demonstrating body sites relating to the breast. There are 13 body sites **24** on each breast. The 13 sites are abbreviated beginning with the highest outer site as "A" **156**, then following a circular pattern on the outermost sites proceeding down from "A" **156** the sites are "A**1**" **158**, "B" **160**, "B**1**" **162**, "C" **164**, "C**1**" **166**, "D" **168**, and "D**1**" **170**. The inner grouping of body sites **24** follows the same pattern, beginning at the highest outermost site, the sites are abbreviated "a" **172**, "b" **174**, "c" **176**, and "d" **178**. The site at the nipple is abbreviated "E" **180**. Because the 13 breast sites are identified by beginning on the outside and circling down and in, the sites on each breast, right and left, are mirror images of the other.

[0044] Breasts come in various shapes and sizes. However, the following pattern will ensure consistency, not only between the first and second set of measurements, but also from one test to the next. Large, pendulous breasts may affect the lower breast sites, B **160**, B**1** **162**, and C **164**, as well as the liver sites (Li**1** **116**, Li**3** **118**). In such cases, measurements should only be done on skin exposed to air and as close as possible to the actual site location; a large breast should not be lifted to test the skin underneath. If the patient has had a mastectomy or has breast implants, breast measurements should still be taken, while avoiding the scars. Also because of the various shapes of breasts, areola size, and location, some sites may be in close proximity, such as B **160**, B**1** **162**, and b **174**. It is important to measure as close to the site locations as possible, while being consistent between the first and second sets of measurements.

[0045] With particular reference to FIG. **9**, there is illustrated a portrayal of the female breast demonstrating the manner in which breast body sites should be measured. Assuming use of a thermograph that measures single sites at a time rather than whole regions, the data from each breast (having the same sites **156-180** on both males and females) should be taken in a circular fashion starting from the first, outer, uppermost site **156**, then proceeding down and in a circular motion towards the nipple **180**. Each site can be located easily by imagining **2** crosses, one vertical, and one diagonal centered on the nipple.

[0046] With particular reference to FIG. **10**, there is illustrated the locations of each of the body sites **24** in the breast region of FIGS. **8** and **9**. Each breast is divided into four quadrants: Upper-Outer **182** and Lower-Outer **184** (lateral) and Upper-Inner **186** and Lower-Inner **188** (medial). Site A **156** is found at the median of, and inside, the rim of the Upper-Outer quadrant **182**. Site A**1** **158** is found on the boarder of the Upper-Outer **182** and Lower-Outer quadrants

184, in line with sites A **156** and B **160**. Site B **160** is found at the median of, and inside, the rim of the Lower-Outer quadrant **184**. Site B**1** **162** is found on the boarder of the Lower-Outer **184** and Lower-Inner quadrants **188**, in line with sites B **160** and C **164**. Site C **164** is found at the median of, and inside, the rim of the Lower-Inner quadrant **188**. Site C**1** **166** is found on the boarder of the Upper-Inner **186** and Lower-Inner quadrants **188**, in line with sites C **164** and D **168**. Site D **168** is found at the median of, and inside, the rim of the Upper-Inner quadrant **186**. Site D**1** **170** is found on the boarder of the Upper-Inner **186** and Upper-Outer quadrant **182**, in line with sites D **168** and A **156**.

[0047] Site a **172** is found in the Upper-Outer quadrant **182**, /**1**;**4** in [1 cm] outside the areola. Site b **174** is found in the Lower-Outer quadrant **184**,/**1**;**4** in [1 cm] outside the areola. Site c **176** is found in the Lower-Inner quadrant **188**,/**1**;**4** in [1 cm] outside the areola. Site d **178** is found in the Upper-Inner quadrant **186**,/**1**;**4** in [1 cm] outside the areola. Finally, site E **180** is on the nipple, or at its base if the nipple is long.

[0048] Another figure referred to in Table 3 is the immune index. The immune index is constructed by the data collected and is a single number ranging from zero to nine. A greater number indicates an immune system vulnerability. To calculate, initially start with an immune index figure of five. Then, find the number of blocked sites within sites T**1**-**2** **68**,**70** and L**1**-**8** **72**-**78**, **84**-**90**. For this purpose "blocked" means a change of 0.2 degrees or less. If there are no blocked sites amongst the above group, subtract three from the immune index figure. If there are one to three blocked sites, add one to the immune index figure. If there are four or more blocked sites, add two to the immune index figure. Next, if the *thymus* (Thy) cools 0.2 degrees or more, subtract two from the immune index figure. For purposes of this index, Thy is blocked if the site falls within the range of cooling by 0.1 degrees or warming by 0.2 degrees. For purposes of this immune index, Thy is paradox if it warmed by more than 0.2 degrees. If Thy is blocked and the initial measurement **22** for Thy is greater than or equal to the baseline temperature **21** plus 0.4 degrees, add two to the immune index figure. If Thy is blocked and the initial measurement **22** for Thy is less than the baseline temperature **21** plus 0.4 degrees, add one to the immune index figure. If Thy is paradox, and the initial measurement **20** for Thy is greater than the baseline temperature **21**, add one and a half to the immune index figure. If Thy is paradox and the initial measurement **20** for Thy is equal to or less than the baseline temperature **21**, add one to the immune index figure. After running through all those conditions the resulting immune index figure will be a number between zero and nine.

[0049] With particular reference to FIG. **11**, there is illustrated a flow chart of the process used to diagnose selected conditions. First a technician will use a thermography device to take an initial measurement **20** of the body temperature at all of the sites described above (**1102**). Then stimulus is applied to the patient, and the thermography device is used to take a second stimulated measurement **24** (**1104**). Each site is then assigned the label normal, blocked, hypo, hyper, or paradox (**1106**). It is suggested that normal be defined as a site having the expected change and blocked as having no change, each having a range of a tenth of degree of variance either positive or negative. In certain circumstances, two tenths a degree of variance either negative or positive are acceptable. The remaining labels are defined by temperature ranges with respect to blocked and normal wherein: hyper falls above normal, hypo falls between blocked and normal, and paradox falls beyond blocked in the reverse direction (cooling or warming) of normal. Once the data is collected and the sites are labeled, consult Table 3 for matching data (**1108**). Once appropriate table entries are located, assess severity and treat accordingly (**1110**).

[0050] With particular reference to FIG. **12**, there is illustrated a flow chart illustrating the relation of a thermography device to the disorder index **25**. The disorder index, will have a figure for each region and each measurement. Thus, first the initial measurement **20** needs to be taken (**1202**). Then, one must focus on a particular multi-site region **23**, such as the head (**1204**). Next, one must find the greatest delta between temperatures of that multi-site region **23** (**1206**). Given the delta, the delta is substituted into the correct equation displayed into Table 1 providing a result (**1208**). Then the same process is repeated for the stimulated measurement **24** (**1210**). Once a technician or user has all the necessary figures for the disorder index **25**, these figures are compared (**1212**). Comparing the disorder index **25** figure from a particular multi-site region **23** from the initial reading **20** to the same figure from the stimulated reading **24** informs a technician the level of "order" within a particular multi-site region **23**. The disorder index **25** thereby allows one to assess the preparedness of body systems or regions to respond to stimuli. If the disorder index **25** increases from the initial reading **20** to the stimulated reading **24**, a technician will know that the system or region is problematic. Depending on the severity of the discrepancy in disorder figures, additional tests targeting the region should be ordered.

[0051] With particular reference to FIG. **13**, there is illustrated a flow chart illustrating the relation of a thermography device to the body chemistry vulnerability index. The BCV, as noted above consists of a single number from one to ten and is based off the initial measurement **20**. First, the initial measurement **20** is taken (**1302**). Once that data is collected, observe the data relating to the multi-site regions **23** for the head, the neck, the chest, the upper abdomen, the lower abdomen, and the back. In each of these regions **23**, find the greatest delta in temperature between sites, which should result in six numbers (**1304**). Once the six greatest deltas are obtained, find the greatest delta amongst the deltas (Ex: if the six deltas were 1.5, 3.2, 2.1, 5.4, 7.8, and 4.9, the greatest delta amongst those would be 7.8-1.5 or 6.3) (**1306**). Next, insert the greatest delta amongst deltas into the appropriate equation provided in Table 2, which provides the result (**1308**). Once a technician has the index figure, this figure provides a one to ten scale of severity for the risk for the body to develop harmful conditions. A higher score on the BCV indicates that it is very likely that the current body chemistry of the patient is conducive to developing harmful conditions.

What is claimed is:

1. The method of diagnosing medical conditions comprising:

taking the body temperature of a plurality of body sites on a patient a first time thereby creating a first set of data;

subjecting the patient's body to a stimulus;

taking the body temperature of a plurality of the same body sites on a patient a second time thereby creating a second set of data;

comparing the first and second sets of data;

diagnosing a selected condition in group A, which heretofore was previously undiagnosable with a thermography device.

2. The method of claim **1**, wherein the selected condition is a toxicity index.

3. The method of claim **1**, wherein the selected condition is a deficit in detoxification capability.

4. The method of claim **1**, wherein the selected condition is body chemistry vulnerability with an immune system deficiency.

5. The method of claim **1**, wherein the selected condition is adrenal stress.

6. The method of claim **1**, wherein the selected condition is an autoimmune disease.

7. The method of claim **1**, wherein the selected condition is brain toxicity.

8. The method of claim **1**, wherein the selected condition is thyroid hyperfunction or anomaly.

9. The method of claim **1**, wherein the selected condition is hepatobiliary system stress.

10. The method of claim **1**, wherein the selected condition is enzyme dysfunction or deficiency.

11. The method of claim **1**, wherein the selected condition is insulin resistance.

12. The method of claim **1**, wherein the selected condition is a pancreas dysfunction.

13. The method of claim **1**, wherein the selected condition is a pelvic disorder.

14. The method of claim **1**, wherein the selected condition is endometriosis.

15. The method of claim **1**, wherein the selected condition is kidney hypo-function.

16. The method of claim **1**, wherein the selected condition is a mastopathy.

17. The method of claim **1**, wherein the severity of the selected condition is graded.

18. The method comprising:

taking the body temperature of a plurality of body sites on a patient a thereby creating a data set;

diagnosing susceptibility to harmful medical conditions in humans in the patient.

19. The method comprising:

taking the body temperature of a plurality of body sites on a patient a first time thereby creating a first set of data;

subjecting the patient's body to a stimulus;

taking the body temperature of a plurality of the same body sites on a patient a second time thereby creating a second set of data;

comparing the first and second sets of data;

assessing the preparedness of body systems or regions to respond to stimuli.

* * * * *

专利名称(译)	使用热成像诊断所选条件的方法		
公开(公告)号	US20150216423A1	公开(公告)日	2015-08-06
申请号	US14/173911	申请日	2014-02-06
[标]申请(专利权)人(译)	贝林DANIEL		
申请(专利权)人(译)	贝林，DANIEL		
当前申请(专利权)人(译)	贝林，DANIEL		
[标]发明人	BEILIN DANIEL		
发明人	BEILIN, DANIEL		
IPC分类号	A61B5/01 A61B5/20 A61B5/00		
CPC分类号	A61B5/015 A61B5/682 A61B5/6822 A61B5/6823 A61B5/6824 A61B5/201 A61B5/41 A61B5/4227 A61B5/425 A61B5/4325 A61B5/4845 A61B5/4312 A61B5/4547 A61B5/4552 A61B5/4884 A61B5/7275 G01J5/0025 G01J2005/0081 G16H40/63 G16H50/20 G16H50/30		
外部链接	Espacenet USPTO		

摘要(译)

本文公开了一种通过使用温度记录仪诊断各种病症的方法。在刺激之前和之后观察到在身体上选定部位测量的体温呈现数据，其在分析时提供对所选条件的可靠怀疑。数据分析包括几个构建的指数和数学表达式，用于诊断条件的脆弱性条件。