

TM-FLOW REPORT



| | | |
|---------------|----------------|------------------------------|
| Patient Name: | HR: 87 | Physician Name: Manesh Patel |
| Gender: | Height 5' 7" | Clinic or Hospital: |
| DOB: | Weight 190 Lbs | Address: |
| Age: | BMI: 29.8 | Referral: |

CLINICAL CONTEXT
 Checkup

STRESS RESPONSE MARKERS

Reflect the patient's physical fitness level.

| | | | | |
|---|-------------|------------|-----|-----|
| Total Power (ms ²) Marker of overall ANS activity at rest. | 450 | ABNORMAL | 500 | 780 |
| High Frequency (ms ²) Marker of parasympathetic activity at rest. | 122 | ABNORMAL | 150 | 220 |
| LF / HF Ratio Marker of ANS balance. | 2.33 | BORDERLINE | 2 | 3.5 |
| SDANN (ms) Marker of sympathetic / parasympathetic function. | 27 | BORDERLINE | 25 | 40 |

SDANN = Standard Deviation Average Normal to Normal LF = Low Frequency HF = High Frequency

BODY COMPOSITION MARKERS

Reflect the patient's healthy and balanced diet.

| | | | | |
|--|-------------|------------|----|----|
| Dry Lean Mass % of muscles and bones to the total weight. | 21 | BORDERLINE | 19 | 24 |
| Body Fat Mass % of the fat mass to the total weight. | 28 | ABNORMAL | 22 | 25 |
| Total Body Water % of the water to the total weight. | 51 | NORMAL | 50 | 45 |
| Body Mass Index Ratio of the weight (Kg) / height squared (m). | 29.8 | ABNORMAL | 23 | 25 |

CONTROL YOUR WEIGHT

| | | |
|---|--------------------------------------|---|
|  TARGET WEIGHT 147 Lbs | WEIGHT PLAN -42 Lbs | CALORIES RANGE PER DAY  1720 (BMR) 2364 (DEE) |
| | FAT PLAN -6 % | |

BMR: Basal metabolic rate, is the total number of calories required for daily normal body functions (excluding activity factors).

DEE: Calculating the calories input (dietary intake) and output (physical activity) you need daily based on BMR would be an effective method for body weight control.

TM-FLOW REPORT

HOMEOSTATIC ASSESSMENT *

Page 2

Visit Date: 12/18/2017
Visit Time: 10:50

* Off Label Use. Markers from clinical studies.

| | | |
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CLINICAL CONTEXT

Checkup

PTG SPECTRAL ANALYSIS MARKERS

PTG = Photoplethysmography, VLF = Very Low Frequency

| | | | | |
|--|------------------------------|-----|------------|----------------|
| PTG Total Power (ms ²) Marker of insulin resistance. | 549 | 406 | BORDERLINE | 550 |
| PTG Index (Vs) Marker of endothelial homeostasis. | TYPE 3 28.1 | 25 | BORDERLINE | 40 |
| PTGVLF Index (Vs / microS) Marker of autonomic homeostasis. | 195 | 32 | | 60 ABNORMAL |

HRV MARKER

| | | | | |
|--|------------|-----|------------|-----|
| Stress Index (%) Marker of inflammation. | 305 | 180 | BORDERLINE | 500 |
|--|------------|-----|------------|-----|

VITAL SIGNS MARKERS

| | | | | |
|--|-------------|------|------------|-------------------|
| Heart Rate (bpm) Marker of the cardiac cycle time. | 88 | 50 | | 85 TACHYCARDIA |
| Oxygen Saturation (%) Blood oxygen saturation at rest. | 93 | 90 | BORDERLINE | 94 |
| Cardiac Index (l/min/m ²) Marker of cardiac output / body area. | 2.53 | 2.5 | BORDERLINE | 2.8 |
| Stroke Volume Index (ml/m ² /beat) Marker of the stroke volume / body area. | 29 | 27 | BORDERLINE | 33 |
| PEPi / LVETi (ratio) Marker of the left ventricle function. | 0.44 | 0.35 | | 0.38 ABNORMAL |

PEPi = PreEjection Period Index, LVETi = Left Ventricle Ejection Time Index

PTG spectral analysis are classified in Types depending on the homeostasis.

Homeostasis is any self-regulating process by which biological systems tend to maintain stability while adjusting to conditions that are optimal for survival.

The potential of regulation depends of 2 main mechanisms of regulation of the body: 1) autonomic nervous system response and 2) endothelial cells response

Type 1= very good response of the mechanisms of regulation

Type 2= good response of the mechanisms of regulation

Type 3= borderline response of the mechanisms of regulation

Type 4= poor response of the mechanisms of regulation

Type 5= very poor response of the mechanisms of regulation

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TM-FLOW REPORT

MICROVASCULAR AND AUTONOMIC ASSESSMENT

Page No. 3



Visit Date: 12/18/2017
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CLINICAL CONTEXT

Checkup

MICROCIRCULATION MARKERS

| | | | | | |
|--|------------|--|-----|------|--|
| Right Foot Nitric Oxide Peak (mV) Marker of the skin microcirculation. | 563 | ABNORMAL  | 768 | 1000 | |
| Left Foot Nitric Oxide Peak (mV) Marker of the skin microcirculation. | 550 | ABNORMAL  | 512 | 768 | |



SMALL FIBER MARKERS

| | | | | | |
|---|------------|--|-----|------|--|
| Right Foot Sweat Peak (mV) Marker of active sweat gland function. | 512 | ABNORMAL  | 960 | 1100 | |
| Left Foot Sweat Peak (mV) Marker of active sweat gland function. | 550 | ABNORMAL  | 960 | 1100 | |

CARDIOVAGAL REFLEX TEST MARKERS

| | | | | | |
|---|-------------|--|------|------|--|
| Valsalva Ratio Marker of baroreceptor sensitivity. | 1.31 | BORDERLINE  | 1.16 | 1.36 | |
| Expiration / Inspiration Ratio Marker of cardiovagal innervation. | 1.07 | ABNORMAL  | 1.15 | 1.18 | |
| K30/15 Ratio Marker of cardiac function at standing. | 1.04 | ABNORMAL  | 1.11 | 1.16 | |

SYMPATHETIC REFLEX TEST MARKERS

| | | | | | |
|--|-------------|--|------|------|--|
| SP Valsalva Recovery Ratio Sympathetic response during valsalva. | 1.01 | NORMAL  | 0.85 | 0.95 | |
| SP K30/15 Recovery Ratio Sympathetic response during standing. | 0.99 | NORMAL  | 0.85 | 0.95 | |

RR = RR Intervals, SP = Systolic Pressure, K30/15 = RR or SP at 30 seconds divided by RR or SP at 15 seconds

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TM-FLOW REPORT

MACROVASCULAR ASSESSMENT

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Patient Name:
Gender:
DOB:
Age:

HR: 88
Height: 5' 7"
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BMI: 29.8

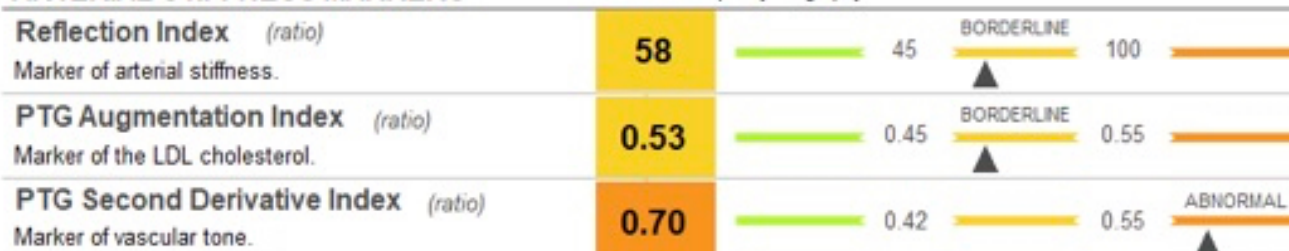
Physician Name: **Manesh Patel**
Clinic or Hospital:
Address:
Referral:

CLINICAL CONTEXT

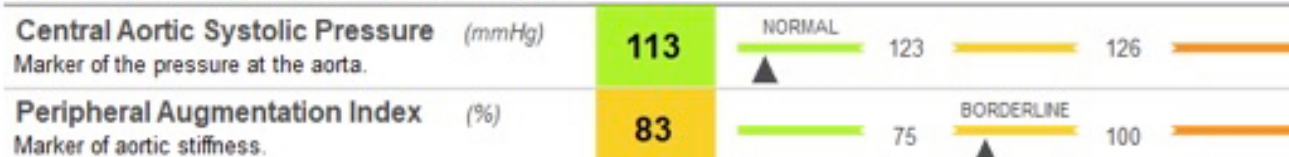
Checkup

ARTERIAL STIFFNESS MARKERS

PTG = Photoplethysmography



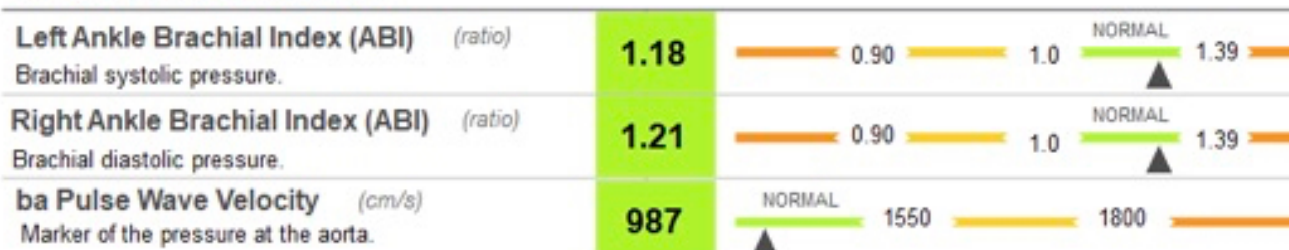
BRACHIAL BLOOD PRESSURE MARKERS



Brachial BP. **SYSTOLIC P.** **124** (mmHg)

DIASTOLIC P. **60** (mmHg)

LOWER ARTERY MARKERS



Left Ankle BP **SYSTOLIC P.** **146** (mmHg)

DIASTOLIC P. **86** (mmHg)

Left Diastolic ABI (ratio) **1.43**

Right Ankle BP **SYSTOLIC P.** **150** (mmHg)

DIASTOLIC P. **88** (mmHg)

Right Diastolic ABI (ratio) **1.47**

BP = Blood Pressure

P = Pressure

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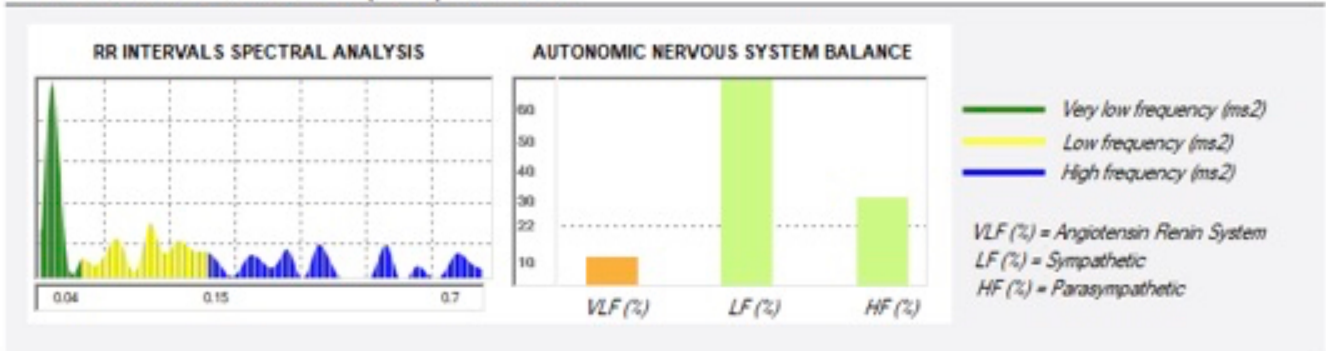
AUTONOMIC NERVOUS SYSTEM ASSESSMENT GRAPHICS

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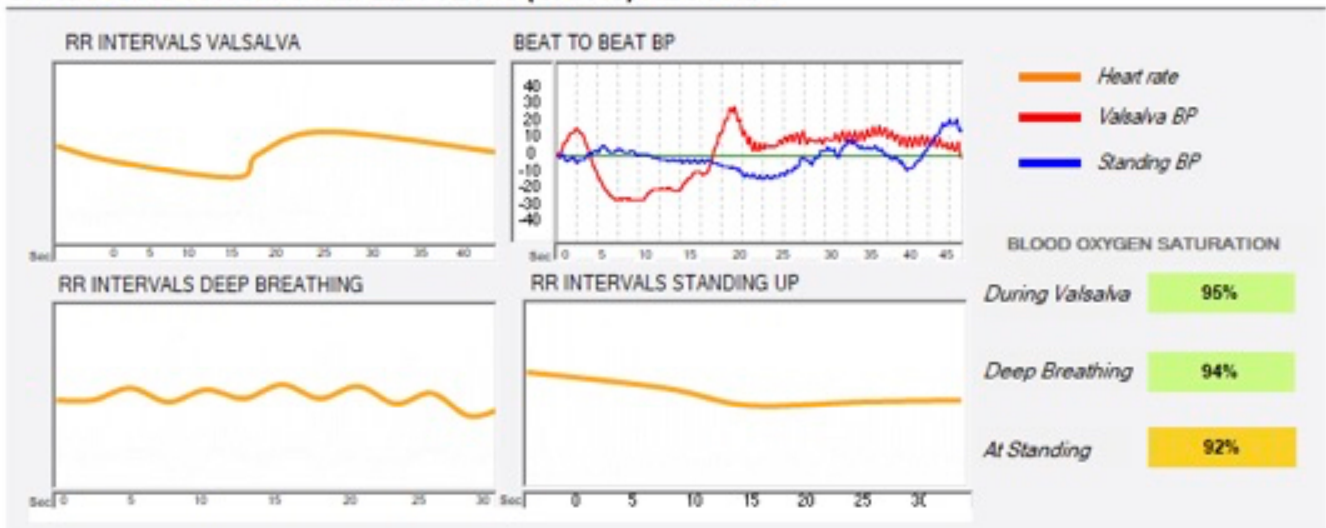
SUDOMOTOR RESPONSE RECORDS



HEART RATE VARIABILITY (HRV) ANALYSIS



CARDIAC AUTONOMIC REFLEX TESTs (CARTs) RECORDS



DISCLAIMER: The interpretation of the graphics is the responsibility of the medical doctor.

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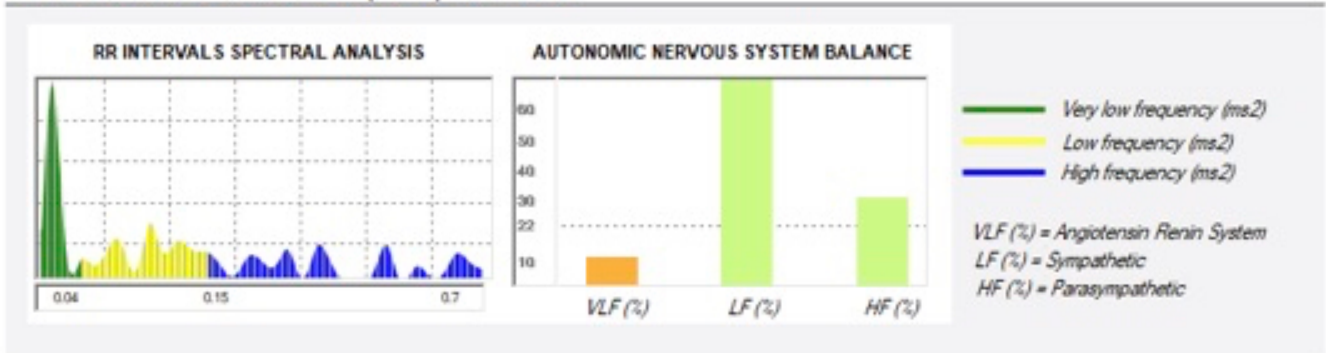
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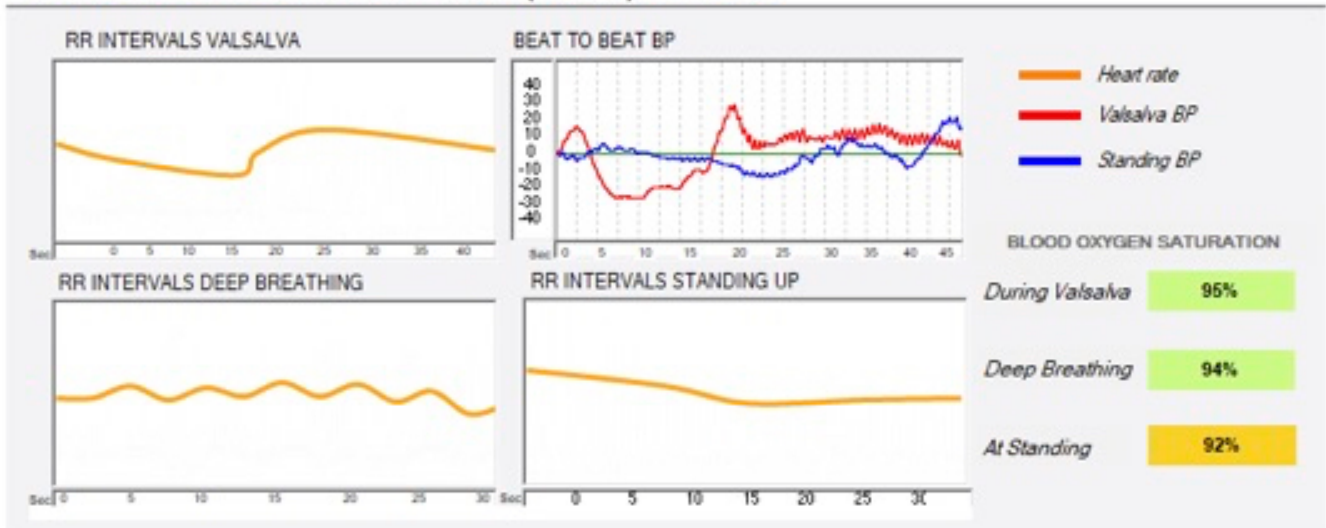
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TMFLOW SOFTWARE

SCORES AND COMMENTS

Page No. 7

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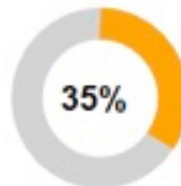
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CLINICAL CONTEXT

Checkup

CARDIOMETABOLIC SCORE



Moderate cardiometabolic risk has been detected. We suggest lab tests exams such as comprehensive metabolic panel.

LIFESTYLE SCORE

COMMENTS



5%

ABNORMAL

Total Power is reduced.
25-hydroxyvitamin D test are suggested.
Possibility of moderate exercise intolerance.
Moderately reduced parasympathetic activity.
We suggest to progressively increase the intensity level of exercise.
Mild mental stress.
We suggest to follow a weight loss program plan.
A Wellness Program with low carbohydrates may help.

HOMEOSTASIS SCORE

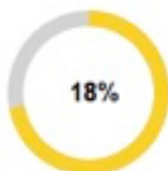


6%

ABNORMAL

Insulin resistance has been detected.
Mild impairment of the endothelial homeostasis.
Moderate impairment of the autonomic homeostasis.
Mild inflammation detected.
Mild decrease in blood oxygen saturation at rest.
Mild decrease in cardiac index.
Mild decrease in stroke volume index.
Possibility of moderate dysfunction in left ventricle.

MACROVASCULAR SCORE



18%

BORDERLINE

Mild systemic arterial stiffness.
Mildly increased LDL cholesterol.
Moderate arterial tone dysfunction.
Mild aortic stiffness.
Ankle Brachial Indices are in normal range.

ANS SCORE

** Off label use*



6%

ABNORMAL

Moderate microcirculation disorder in both feet.
Treating the underlying condition or lifestyle change as well as lab tests (Vitamin B12; Folate test) suggested.
Low sudomotor response in both feet. Moderate decrease in sweat gland density.
In case of symptom, the patient should be referred to a Neurologist for further examination and treatment option.
Moderate impairment of cardiovagal regulation at standing.
Mild baroreceptor sensitivity.
Moderate impairment in cardiovagal innervation response.

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