

# REPORT

## VASCULAR FUNCTION ASSESSMENT

Patient Name: [REDACTED]  
 Gender: Female  
 DOB: 2/23/1967  
 Age: 50

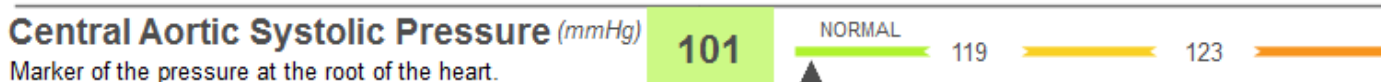
HR: 84  
 Height: 5' 5"  
 Weight: 247 Lbs  
 BMI: 41.1

Physician Name:  
 Clinic or Hospital: Apex Medical Center  
 Address: [REDACTED]  
 Las Vegas, Nevada 89106  
 Referral:

### CLINICAL CONTEXT

Checkup

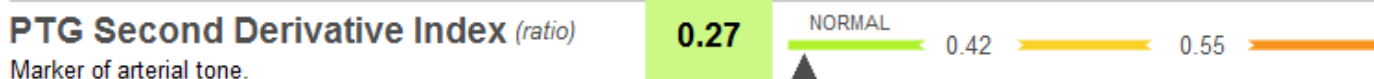
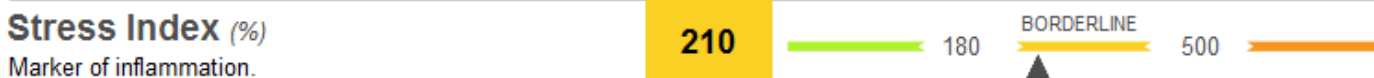
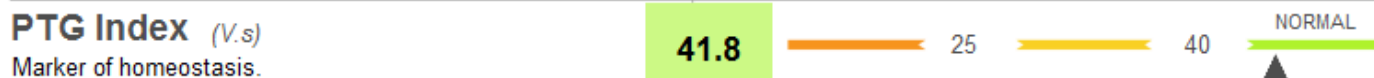
### UPPER EXTREMITY ARTERY



Brachial BP.	SYSTOLIC P. (mmHg)	<b>145</b>	DIASTOLIC P. (mmHg)	<b>58</b>	PULSE P. (mmHg)	<b>87</b>
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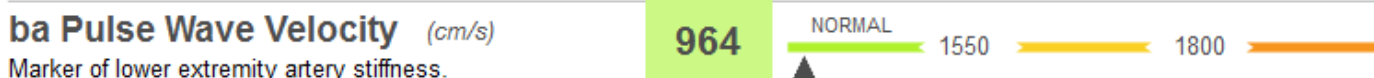
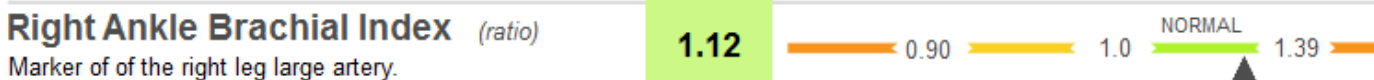
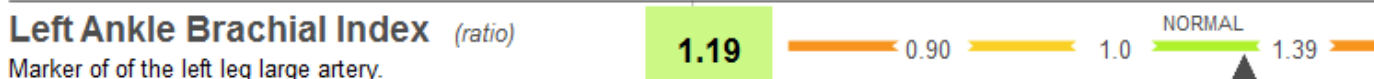
### ENDOTHELIAL FUNCTION

PTG stands for photoplethysmography.



### LOWER EXTREMITY ARTERY

ba stands for brachial ankle and NC for Non-Compressible.



Left Ankle BP.	SYSTOLIC P. (mmHg)	<b>171</b>	DIASTOLIC P. (mmHg)	<b>73</b>	Left Diastolic ABI (ratio)	<b>1.26</b>
Right Ankle BP.	SYSTOLIC P. (mmHg)	<b>162</b>	DIASTOLIC P. (mmHg)	<b>61</b>	Right Diastolic ABI (ratio)	<b>1.05</b>

BP stands for blood pressure and P. for pressure.

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### CLINICAL CONTEXT

Checkup

### CARDIAC AUTONOMIC REGULATION

<b>Total Power</b> (ms <sup>2</sup> ) Marker of overall ANS activity at rest.	<b>1001</b>	500	780	NORMAL
<b>High Frequency</b> (ms <sup>2</sup> ) Marker of parasympathetic activity at rest.	<b>171</b>	150	220	BORDERLINE
<b>Low Frequency / High Frequency</b> (ratio) Marker of ANS balance.	<b>2.49</b>	2	3.5	BORDERLINE
<b>SDANN</b> (ms) Marker of sympathetic / parasympathetic function.	<b>33</b>	25	40	BORDERLINE

### CARDIOVAGAL REFLEX TESTS

RR stands for Regular to Regular time between each heart beat.

<b>RR / SP Valsalva Ratio</b> Marker cardiovagal response to BP.	<b>1.08</b>	0.85	0.95	NORMAL
<b>Expiration / Inspiration Ratio</b> Marker of cardiovagal innervation.	<b>1.21</b>	1.15	1.18	NORMAL
<b>K30/15 Ratio</b> Marker of cardiac function.	<b>1.10</b>	0.99	1.04	NORMAL

### SYMPATHETIC REFLEX TESTS

SP stands for systolic pressure.

<b>SP Valsalva Recovery</b> Sympathetic response during Valsalva test.	<b>1.02</b>	0.85	0.95	
<b>SP K3015 Recovery</b> Sympathetic response during change of posture.	<b>0.97</b>	0.85	0.95	

### SUDOMOTOR TESTS

NO stands for nitric oxide.

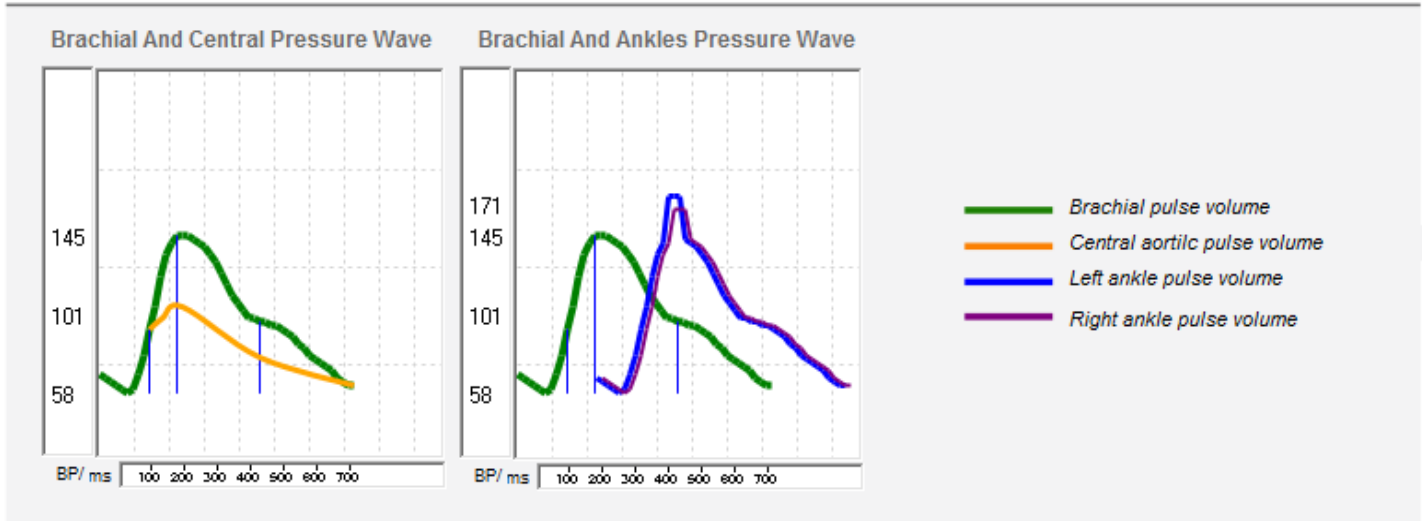
<b>Sweat Peak</b> (mV) Marker of the active sweat gland nerve function.	<b>730</b>	ABNORMAL	768	1000
<b>NO Peak</b> (mV) Marker of the skin foot microcirculation.	<b>402</b>	ABNORMAL	768	1000

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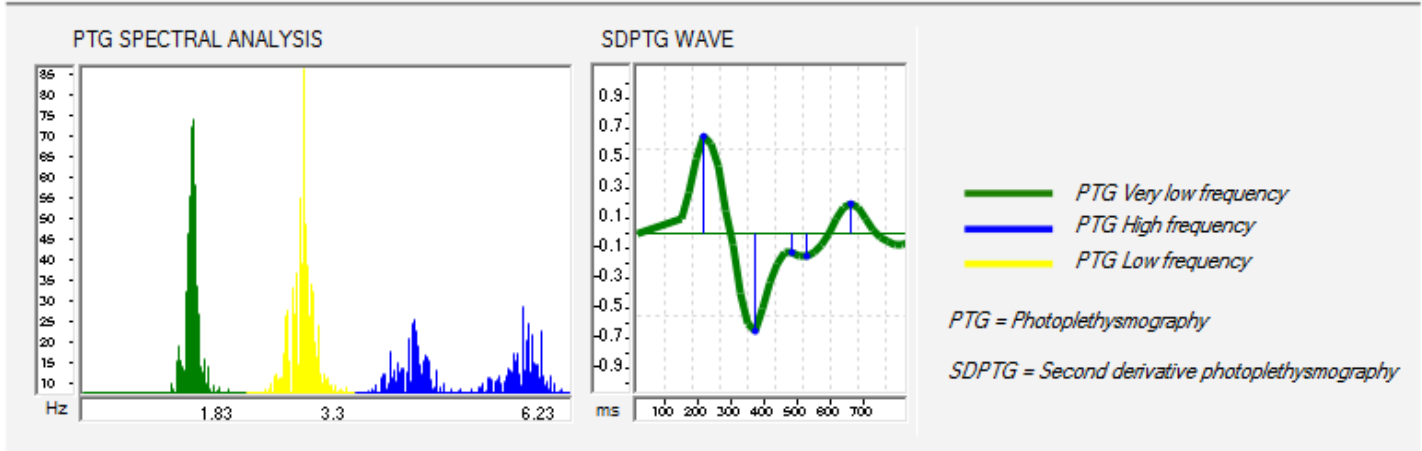
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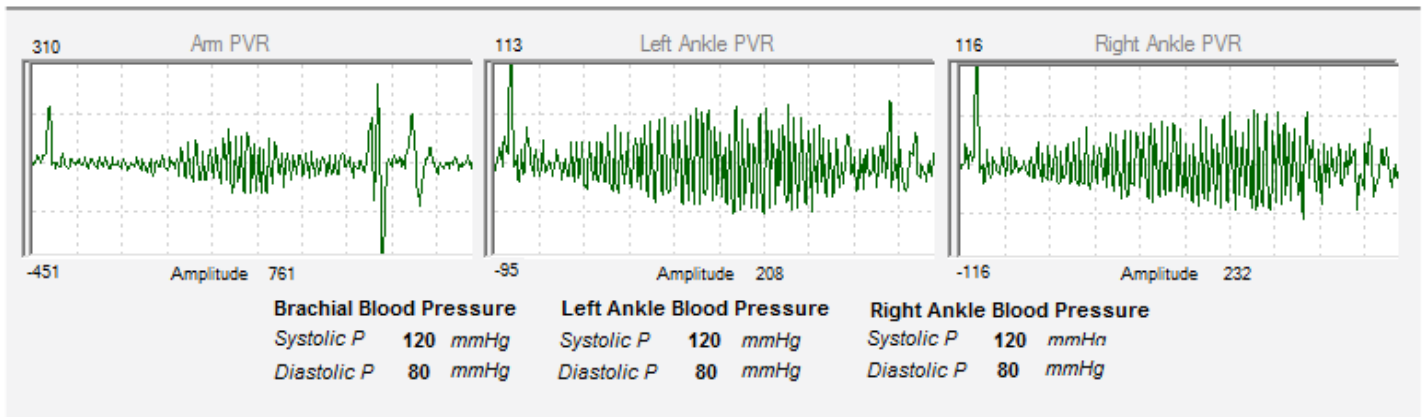
### GRAPHICS OF VOLUME PLETHYSMOGRAPHY ANALYSIS



### GRAPHICS OF VOLUME PHOTOPLETHYSMOGRAPHY ANALYSIS



### GRAPHICS OF SEGMENTAL VOLUME PLETHYSMOGRAPHY ANALYSIS

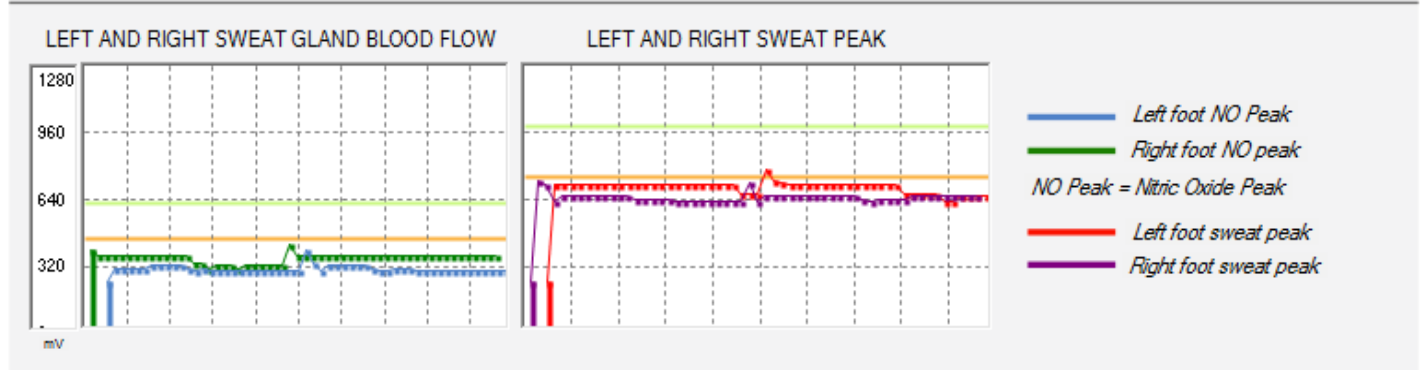


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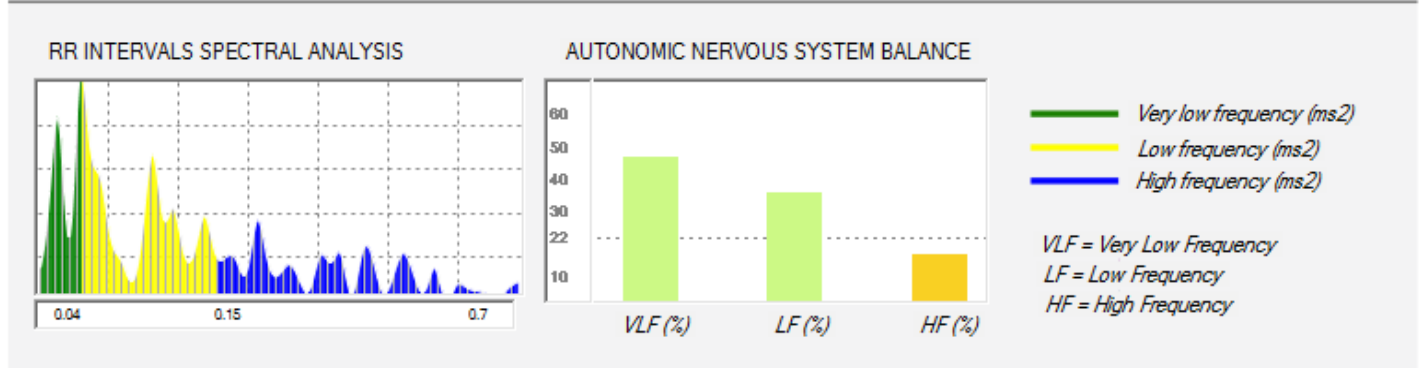
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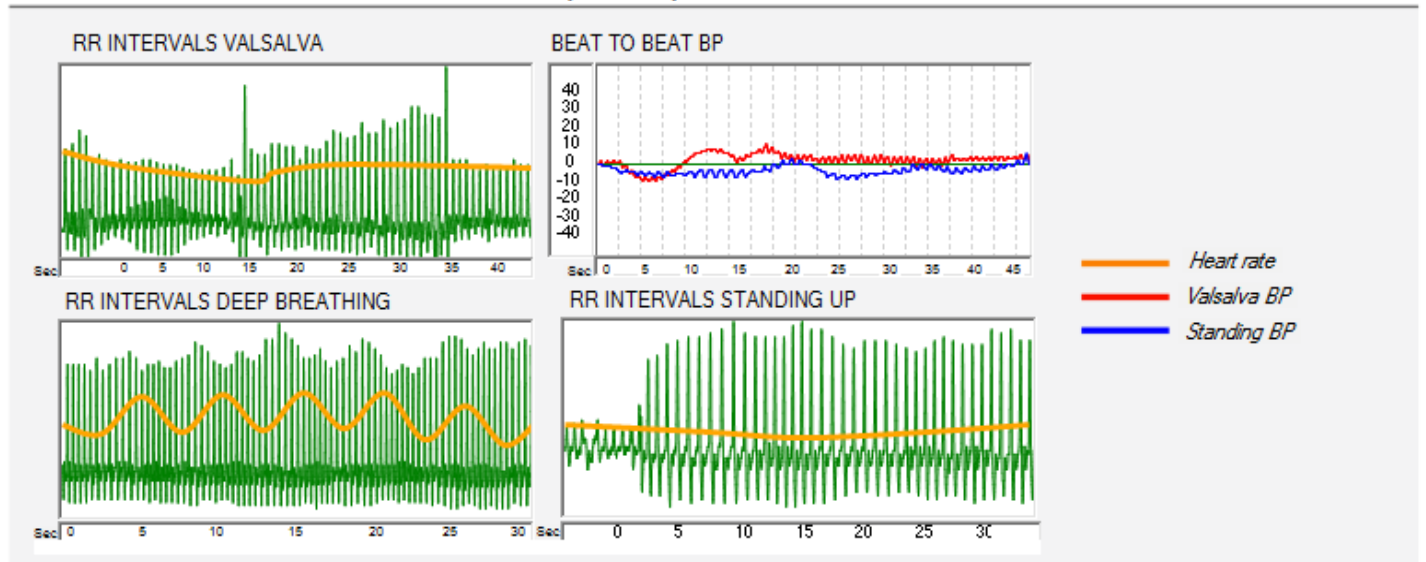
### SUDOMOTOR RESPONSE RECORDS



### HEART RATE VARIABILITY (HRV) ANALYSIS



### CARDIAC AUTONOMIC REFLEX TESTs (CARTs) RECORDS



# REPORT

## RISK ASSESSMENT AND COMMENTS

Visit Date: 5/18/2017

Visit Time: 9:21

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### VASCULAR FUNCTION RISKS

UPPER EXTREMITY ARTERY	BORDERLINE
ENDOTHELIAL FUNCTION	NORMAL
LOWER EXTREMITY ARTERY	NORMAL

### COMMENTS

Mild inflammatory process.  
 Mild elevated brachial blood pressure.  
 Ankle Brachial Indices are in normal range.

### AUTONOMIC NEUROPATHY RISKS

SMALL FIBER NEUROPATHY	ABNORMAL
ANS REGULATION	BORDERLINE
CARDIOVAGAL TESTS	NORMAL
SYMPATHETIC TESTS	NORMAL

### COMMENTS

Severe 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 right foot. Moderate decrease in sweat gland density.  
 In case of symptom, the patient should be referred to a Neurologist for further examination and treatment option.  
 Mild reduction of VO2 Max. Possibility of mild exercise intolerance.  
 Mild sympathetic predominance and/or mental stress.  
 No cardiac autonomic neuropathy has been detected.

### CARDIOMETABOLIC RISK\*

CARDIOMETABOLIC RISK	ABNORMAL
MICROVASCULAR RISK	BORDERLINE
MACROVASCULAR RISK	NORMAL

### COMMENTS

\* Off label use

Diabetes risk has been detected.  
 We suggest lab tests exams such as comprehensive metabolic panel.  
 Insulin resistance has been detected. Wellness program is suggested.  
 Bariatric surgery could be envisioned.  
 Mild microvascular disorder has been detected.  
 Kidney lab tests as well as eye exams (Retina) are suggested.  
 No macrovascular risk has been detected.

### PHYSICIAN'S NOTES

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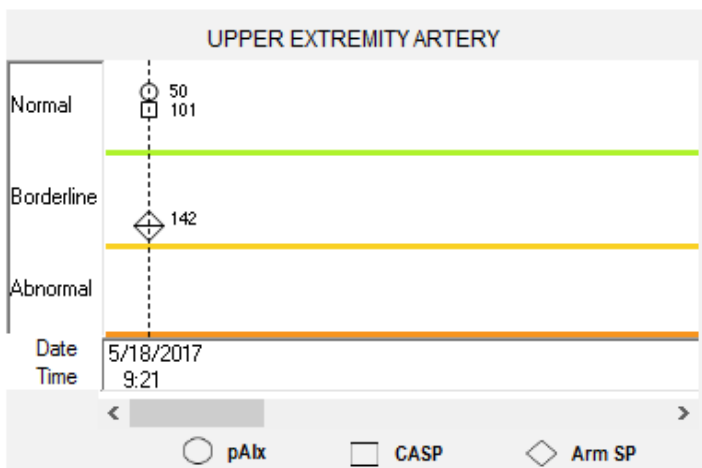
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### VASCULAR FUNCTION TREND CHARTS



### AUTONOMIC NERVOUS SYSTEM TREND CHARTS

