

Cardiovascular Function

	Score	Units	Norms		Score	Units	Norms		Score	Units	Norms
Ventricular Extrasystole	0		< 1	Atrial Extrasystole	0		< 1	Sinoatrial arrest	1		< 1
Artifacts	0		< 1	QRS	87	ms	60-120	QTc	402	ms	350-460
ST seg	101	ms	80-120	PR int	83	ms	120-200	Body Mass Index	34.7		19-25

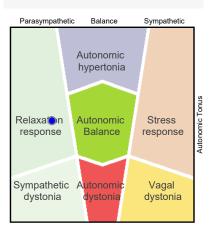
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CARDIAC AUTONOMIC NEUROPATHY ASSESSMENT

Demo Beta 2 Adrenergic Agonists

Gender: Male Age: 62 (DOB: Feb 2 1959) Weight: 249 lbs MRN: 98835 Height: 5 ft 11 in BMI: 34.7

Exam Date: Feb 22 2021 15:53









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1.05 1.1 1.15 1.2

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The sympathetic nervous system activates the "fight-or-flight" responses. It activates the glands and organs that defend the body against attack. The sympathetic nervous system uses up energy and depletes the body. The parasympathetic nervous system controls the "rest and digest" responses. The parasympathetic nervous system, when activated by rest, relaxation and happy thoughts, is essential for balanced living and for all healing.



Expiration/Inspiration Ratio is a marker of cardiovagal response.

VALSALVA RATIO:1.31

Marker of baroreceptor sensitivity response.

30/15 RATIO: 1.06

Heart rate change during standing or tilt at 30 and 15 second.

Systolic Pressure Response to Standing:12 mmHg

Marker of sympathetic adrenergic function.

Autonomic Nervous System

Parasympathetic Dominance; Autonomic nervous system is out of balance; Suggests increased parasympathetic development; Possible chronic autonomic dysfunction; Treatment Options: Changes in lifestyle, medications and other therapy options are suggested. Suggests Hypertension; Relaxation response. This may be a sign of achieving a mental/physical restful condition and healthy relaxation. If similar results appear 3 or more times in a row and there is no information about any special training skills, it is recommended to perform a thorough health check up. Establishing and maintaining a healthy life style may help to improve the autonomic function;

Parasympathetic Response to Deep Breathing

Normal Parasympathetic response to stimulation;

Sympathetic Response to Valsalva Maneuver

Normal Sympathetic response to stimulation;

Active Standing

Normal ANS response to stimulation; Enhanced cardiovascular adaptation. The autonomic regulation of the functioning of the cardiovascular system provides enormous ability for a long-term adaptation to physical extensions and to adequately tolerate them. Typically this is a sign of the absence of physical exhaustion, overtraining or any cardiovascular health conditions. This is a typical pattern of a physically active healthy individual without any evident signs of physical exhaustion, overtraining or other conditions altering the regulatory functions of the autonomic nervous system or a cardiovascular response to it;

Physician's Notes:

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will show signs of distress

AUTONOMIC REGULATION ASSESSMENT

Demo Beta 2 Adrenergic Agonists

Gender: Male Age: 62 (DOB: Feb 2 1959)

MRN: 98835

Weight: 249 lbs

AUTONOMIC PHYSICAL DYSREGULATION (PSI) = -0.3

PSI is an indicator of accumulative chronic physical stress. Physical stress can

illness. The way in which a person copes with physical stressors is a significant

contributing factor to this process. When the stress becomes too great, the body

The score is average. It indicates low physical stress. Stress in the recent past

has had little or no long-term effect on your physical balance. The negative

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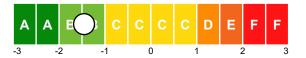
be caused by long-term exposure to negative factors in one's life or physical

Height: 5 ft 11 in BMI: 34.7

Exam Date: Feb 22 2021 15:53

ACCUMULATIVE MENTAL STRESS (MSI) = -1.46

MSI is an indicator of accumulative mental stress. Mental stress can be caused by situations one has to cope with daily and the emotional states that result. The way in which a person copes with stressful events is a significant contributing factor to this process. When the stress becomes too great, the body will show signs of distress



0 15

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The score is clearly below average. It indicates very low mental stress. Stress in the recent past has had little or no effect on your mental-health. The negative effects of mental stress are very limited.

Autonomic Balance: 4.9

effects of physical stress are limited.

Parasympathetic Dominance; Autonomic nervous system is out of balance; Suggests increased parasympathetic development; Possible chronic autonomic dysfunction; Treatment Options: Changes in lifestyle, medications and other therapy options are suggested. Suggests Hypertension;

The sympathetic nervous system activates the "fight-or-flight" responses. The parasympathetic nervous system controls the "rest and digest" responses.

Total Autonomic Activity:62

Relaxation response. This may be a sign of achieving a mental/physical restful condition and healthy relaxation. If similar results appear 3 or more times in a row and there is no information about any special training skills, it is recommended to perform a thorough health check up. Establishing and maintaining a healthy life style may help to improve the autonomic function:

Marker of the overall ANS activity at rest.

Body Mass Index (BMI):34.7



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Paracympathotic

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Polonco

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Sympothetic

60 75 90

105 120

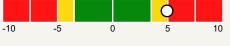
Overweight to Obese - high risk of associated diseases

Body mass index is defined as the individual's body weight divided by the square of his or her height. The body mass index can be used to identify if you are overweight.

								Parasympathe	ic Balance	Sympathetic
	Score	Units	Norms		Score	Units	Norms			
LFa	0.92	bpm²	0.5-4	HFa	2.16	bpm²	0.5-4		Autonomic hypertonia	
Blood Pressure	156/102	mmHg	<120	BPSys Response to Standing	-12	mmHg	<10		nyportonia	
Functional Age	54	years	< 64	Health Risk Factor	26	%	< 50			
SDNN	26	ms	> 40	HeartRate	90	bpm	< 90	Relaxation response	Autonomic Balance	Stress response
Ventricular Extrasystole	0		< 1	Atrial Extrasystole	0		< 1			
Sinoatrial arrest	1		< 1	Artifacts	0		< 1			
A - Normal B - Border	line Norma	ai 🕒 - I		D - Borderline Abnorma E - Abno	ormal F)			
0			247.67			495.33				
Heart Rate										
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Physician's Notes:

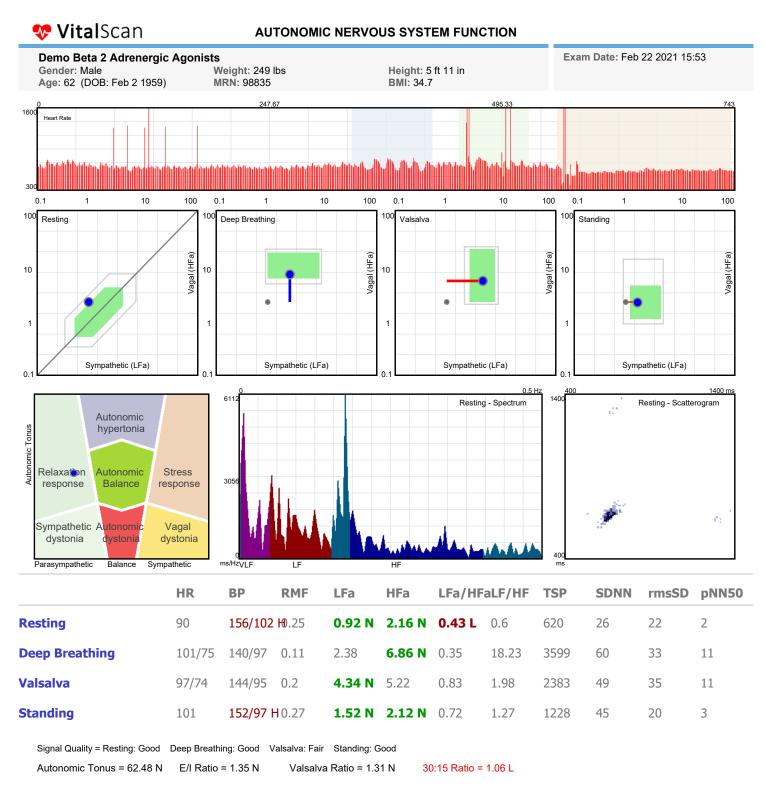
All results and analysis should be considered in the context of persons/candidate's case history, symptoms, diagnosis, current medications, treatment plans and therapies Final diagnosis is the sole responsibility of the licensed medical practitioner after persons examination, lab tests and/or other clinical findings as necessary.



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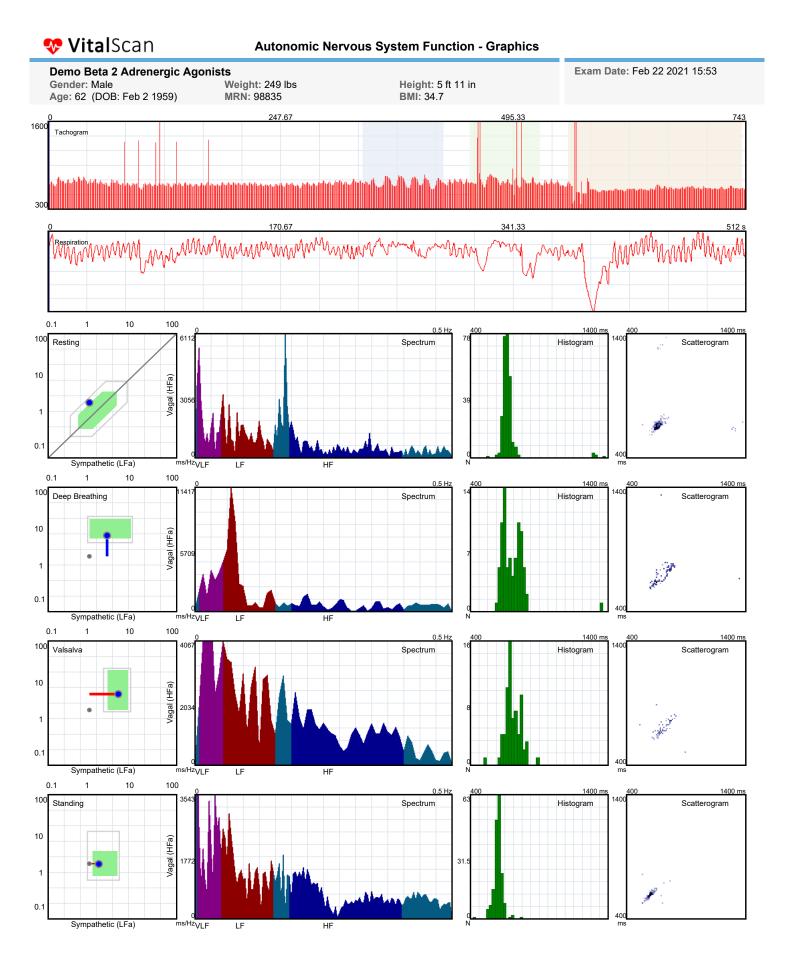
Resting: Parasympathetic Dominance; Autonomic nervous system is out of balance; Suggests increased parasympathetic development; Possible chronic autonomic dysfunction; Suggests Hypertension; Relaxation response. This may be a sign of achieving a mental/physical restful condition and healthy relaxation. If similar results appear 3 or more times in a row and there is no information about any special training skills, it is recommended to perform a thorough health check up. Establishing and maintaining a healthy life style may help to improve the autonomic function;

Deep Breathing: Normal Parasympathetic response to stimulation;

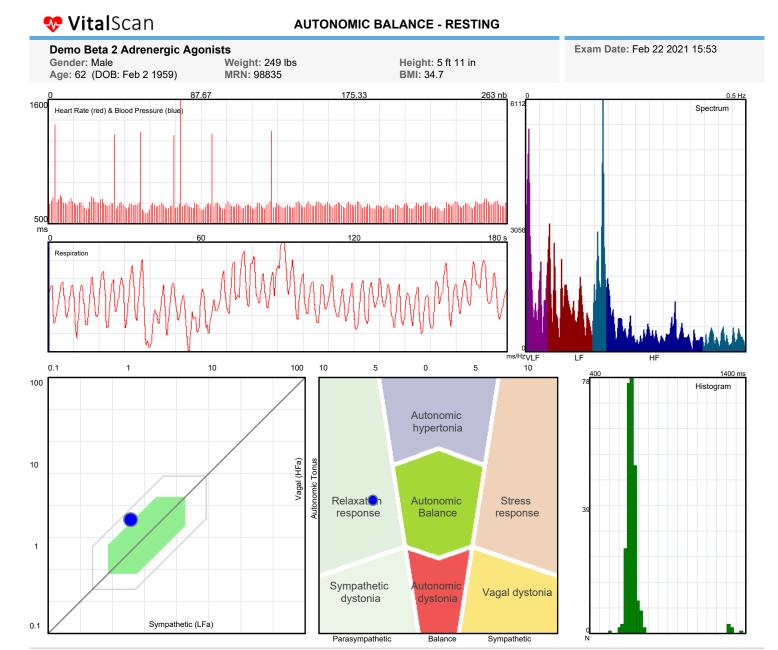
Valsalva: Normal Sympathetic response to stimulation;

Standing: Normal ANS response to stimulation; Enhanced cardiovascular adaptation. The autonomic regulation of the functioning of the cardiovascular system provides enormous ability for a long-term adaptation to physical exertions and to adequately tolerate them. Typically this is a sign of the absence of physical exhaustion, overtraining or any cardiovascular health conditions. This is a typical pattern of a physically active healthy individual without any evident signs of physical exhaustion, overtraining or other conditions altering the regulatory functions of the autonomic nervous system or a cardiovascular response to it;

Physician's Notes:



Physician's Notes:



HeartBeats = 256 Artifacts = 7 (2.7%) Signal Quality = Good

Autonomic Tonus = 62.48 N

<mark>LFa</mark> HFa LFa/HFa	value 0.92 2.16 0.43	normal 0.5-4 0.5-4 0.4 to 3	borderline 0.3-0.5 0.3-0.5	high >7 >7 > 3	low <0.3 <0.3 < 0.4
HR VLF SDNN TSP	90 95.33 26 620	BP LF rmsSD LF/HF	156/102 143.98 22 0.6	RMF HF pNN50	0.25 238.15 2

HR,PD - bpm; RMF - Hz; VLF,LF,HF,TSP - ms²; HFa,LFa - bpm²

Parasympathetic Dominance; Autonomic nervous system is out of balance; Suggests increased parasympathetic development; Possible chronic autonomic dysfunction; Suggests Hypertension; Relaxation response. This may be a sign of achieving a mental/physical restful condition and healthy relaxation. If similar results appear 3 or more times in a row and there is no information about any special training skills, it is recommended to perform a thorough health check up. Establishing and maintaining a healthy life style may help to improve the autonomic function;

Physician's Notes:

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AUTONOMIC NERVOUS SYSTEM FUNCTION

Height: 5 ft 11 in

Exam Date: Feb 22 2021 15:53

Demo Beta 2 Adrenergic Agonists

Gender: Male

Age: 62 (DOB: Feb 2 1959)

MRN: 98835 BMI: 34.7 Parasympathetic Sympathetic ganglia Sympathetic Constricts pupil Dilates pupil Inhibits Stimulates salivation salivation Inhibits heart Relaxes bronchi Cervical Accelerates Constricts bronchi _ heart Thoracic Inhibits digestive activity Stimulates digestive activity Stimulates glucose release by liver Lumbar Stimulates Secretion of epinephrine and gallbladder norepinephrine from kidney Contracts Relaxes bladder bladder Contracts rectum Relaxes rectum

Non-Invasive Autonomic Nervous System Monitoring

Your nervous system is comprised of three parts:

1) Somatic (or sensory) nervous system

2) Motoric Nervous System

3) Autonomic Nervous System (ANS)

Your ANS is that part of your nervous system which functions to sustain your life by helping to control your heart, lungs, digestive system, blood pressure, immune system, certain reflexes, such as coughing and gagging, fluid balance, pupil diameter, sweating and sexual function.

Your ANS Consists of Two Parts (branches). There are two parts, or branches to your ANS

Weight: 249 lbs

1) Sympathetic branch

2) Parasympathetic branch

Generally, the sympathetic branch is more in control when you are stressed, nervous, or excited, while the parasympathetic branch is more in control when you are relaxing, sleeping, or recovering from an illness or injury.

A balance between the two branches of your ANS is essential for good health. In fact, most illnesses and injuries cause or result from an imbalance between these two branches. An imbalance in your ANS can tell your doctor many things about how healthy you are as well as what can be done to keep you as healthy as possible.

ANS monitoring records your heart rate variability and respiratory activity. Your heart rate variability and respiratory activity are analyzed by a computer to determine how your ANS is controlling your heart and your lungs and other parts of your body. Your physician then interprets your results produced by the computer.

What is Heart Rate Variability (HRV)?

Heart rate variability (HRV) is a measure of your heart's ability to quickly respond to changes in your level of activity. Moderate variability is healthy. Too much or too little is unhealthy. ANS monitoring using HRV can provide your doctor with information that cannot be seen using other measures, for example on an EKG recording.

Why is including respiratory activity important?

Analyzing your respiratory activity along with your HRV is key to monitoring the balance between the two branches of your autonomic nervous system.

Why is ANS monitoring important?

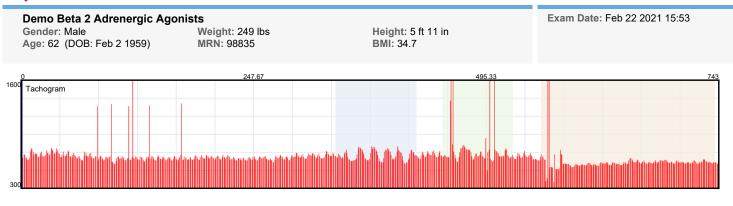
Everyone is different, and so is their autonomic nervous system. How an individual responds to disease, injury, medicines and medical treatments largely depends on her or his ANS. By monitoring your ANS, your doctor can determine whether she or he is doing enough to keep you healthy. In this way, your doctor can better care for you and better maintain your well-being.

Who should be monitored?

Everyone from children to older adults can and should have their ANS monitored. Frequent monitoring, when indicated, helps your doctor better maintain your health and well-being and tailor treatments, including medications, especially for you.

Physician's Notes:

AUTONOMIC NERVOUS SYSTEM FUNCTION



	HR	BP	RMF	LFa	HFa	LFa/HF	aLF/HF	TSP	SDNN	rmsSD	pNN50
Resting	90	156/102	₩0.25	0.92 N	2.16 N	0.43 L	0.6	620	26	22	2
Deep Breathing	101/75	140/97	0.11	2.38	6.86 N	0.35	18.23	3599	60	33	11
Valsalva	97/74	144/95	0.2	4.34 N	5.22	0.83	1.98	2383	49	35	11
Standing	101	152/97	H0.27	1.52 N	2.12 N	0.72	1.27	1228	45	20	3

Signal Quality = Resting: Good Deep Breathing: Good Valsalva: Fair Standing: Good

Autonomic Tonus = 62.48 N E/I Ratio = 1.35 N Valsalva Ratio = 1.31 N 30:15 Ratio = 1.06 L

RESTING:

Parasympathetic Dominance; Autonomic nervous system is out of balance; Suggests increased parasympathetic development; Possible chronic autonomic dysfunction; Suggests Hypertension; Relaxation response. This may be a sign of achieving a mental/physical restful condition and healthy relaxation. If similar results appear 3 or more times in a row and there is no information about any special training skills, it is recommended to perform a thorough health check up. Establishing and maintaining a healthy life style may help to improve the autonomic function;

DEEP BREATHING:

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Normal Parasympathetic response to stimulation;

VALSALVA:

Normal Sympathetic response to stimulation;

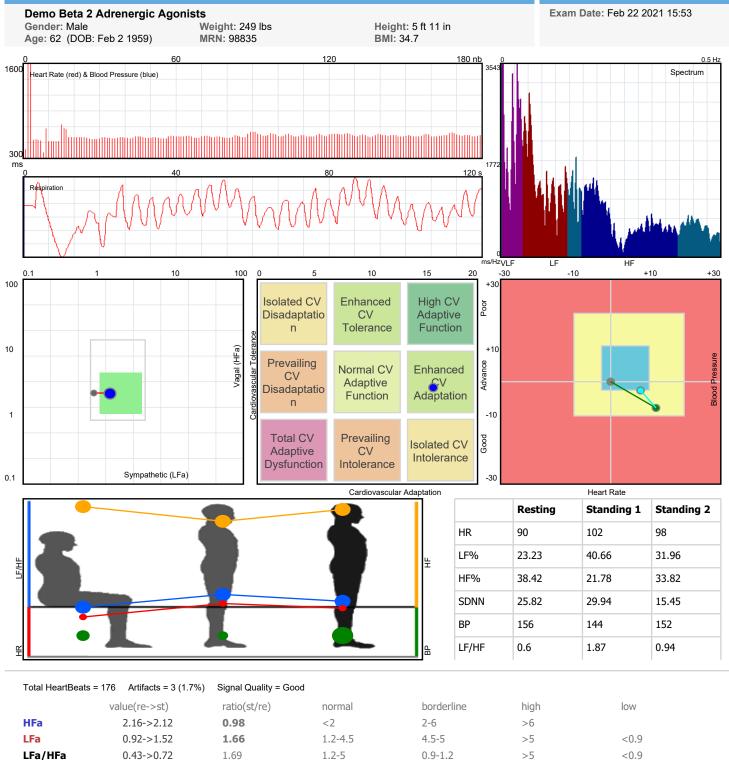
STANDING:

Normal ANS response to stimulation; Enhanced cardiovascular adaptation. The autonomic regulation of the functioning of the cardiovascular system provides enormous ability for a long-term adaptation to physical exertions and to adequately tolerate them. Typically this is a sign of the absence of physical exhaustion, overtraining or any cardiovascular health conditions. This is a typical pattern of a physically active healthy individual without any evident signs of physical exhaustion, overtraining or other conditions altering the regulatory functions of the autonomic nervous system or a cardiovascular response to it;

Physician's Notes:



AUTONOMIC BALANCE - STANDING



1.12 >1.1 1-1.1 >30 1.06 30:15 Ratio >1.1 <1.1 TSP 1228 LF/HF 1.27 RMF 0.27 **SDNN** 45 rmsSD 20 pNN50 3 PH **SDSD** 20.28 55 HR,PD - bpm; RMF - Hz; VLF,LF,HF,TSP - ms²; HFa,LFa - bpm²

Normal ANS response to stimulation; Enhanced cardiovascular adaptation. The autonomic regulation of the functioning of the cardiovascular system provides enormous ability for a long-term adaptation to physical exertions and to adequately tolerate them. Typically this is a sign of the absence of physical exhaustion, overtraining or any cardiovascular health conditions. This is a typical pattern of a physically active healthy individual without any evident signs of physical exhaustion, overtraining or other conditions altering the regulatory functions of the autonomic nervous system or a cardiovascular response to it;

Physician's Notes:

HR

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All results and analysis should be considered in the context of persons/candidate's case history, symptoms, diagnosis, current medications, treatment plans and therapies. Final diagnosis is the sole responsibility of the licensed medical practitioner after persons examination, lab tests and/or other clinical findings as necessary.

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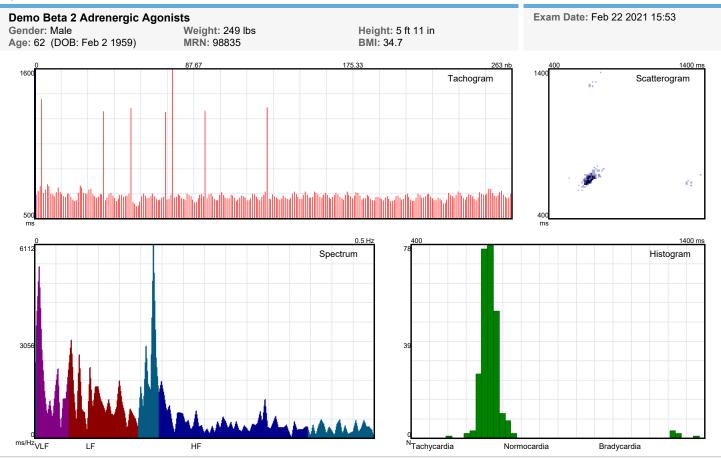
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ECG ANALYSIS REPORT

Gender: Ma	a 2 Adrene ale OB: Feb 2 1		We	ight: 24 N: 9883	9 lbs 5				eight: { MI: 34.	5 ft 11 in 7			Exa	am Date	e: Feb	22 202 <i>°</i>	15:53	
Recorded t	time							Н	leart R	late								
Start Date			2021-0	2-22 15	:53:4	7		A	verag	e Heart F	ate		89 bpr	n				
Duration			8 min 3	2 sec (743 b	eats)		F	astest	rate			156 bp	om				
Non-diagno	ostic		2 sec 7	80 ms				S	lowes	t rate			74 bpr	n				
High Pass	Filters		3.4 Hz															
Ventricular	Details							S	uprav	entricular	Details							
PVC - Vent	tricular Ecte	ору	0 beats	s (0%)				P	AC - S	Supraven	tricular E	ctopy	0 beat	s (0%)				
Ventricular	Couplet		0 episc	des				S	uprav	entricular	Couplet		0 epis	odes				
Pause / Blo	ock							G	RS AI	nalysis								
	Artifact bea	ıt	2 beats	(0.3%)				_	RS	· j - · -			86 ms					
Sinus Paus			1 beats	. ,					T / Q	Гс				s/411	ms			
			I	. /					R int /					/ 37 m				
HRV Analy SDNN	/SIS		33 ms					s	T int /	seg			253 m	s / 106	ms			
Interpretati	ions:			Sinus P	ause: r / Arti	0.1% fact beat	asystole: (P /R tateral		ST against QT Interval	「 <u> </u>			
Interpretati	ions:			Sinus P Irregula	ause: r / Arti	0.1% fact beat							s	ST regent QT Interval	۲ ۰			
Interpretati		N 665	N	Sinus P Irregula	ause: r / Arti	0.1% fact beat		675	N	655			s	sr rgant 27 Janual 29	665	N	745	
		N 665	N	Sinus P Irregula Normal	ause: r / Arti 99.69	0.1% (act beat	: 0.3%		N	655		P	S		665	N	745	
N	675	1	-l-	700	N	0.1% (act beat 6 705	N	675	A	~	N 640	P N	640	N	~	-1	~	
N		N 665	-l-	Sinus P Irregula Normal	ause: r / Arti 99.69	0.1% (act beat 6 705	N		A	~		P	S		665 N	N 690	745	
~{/	675	1	-l-	700	N	0.1% (act beat 6 705	N	675	A	~	N 640	P N	640	N	~	-1	~	
N	675	1	-l-	700	N	0.1% (act beat 6 705	N	675	A	~	N 640	P N	640	N	~	-1	~	

Physician's Notes:

HRV CUMULATIVE STRESS ASSESSMENT



Total HeartBeats = 256Artifacts = 7 (2.7%)Signal Quality = GoodHeartRate = 90.41 (bpm)TDI = 22FDI = 829.82SDNN = 25.82

FUNCTIONAL AGE (in years) = 54

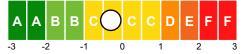
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HEALTH RISK Factor Based on Stress Assessment = 25.85 %

Physical Stress Coefficient = 2.1 (Normal value: 2.4 Range from 0 to 4 Unfavorable values: higher than 2.9)

PHYSICAL STRESS INDEX = -0.3

(Normal value: 0 Range from -3 to 3 Unfavorable values: higher than 1)

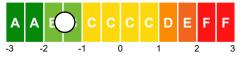


The score is average. It indicates low physical stress. Stress in the recent past has had little or no long-term effect on your physical balance. The negative effects of physical stress are limited.

Mental Stress Coefficient = 0.54 (Normal value: 2 Range from 0 to 4 Unfavorable values: higher than 2.5)

MENTAL STRESS INDEX = -1.46

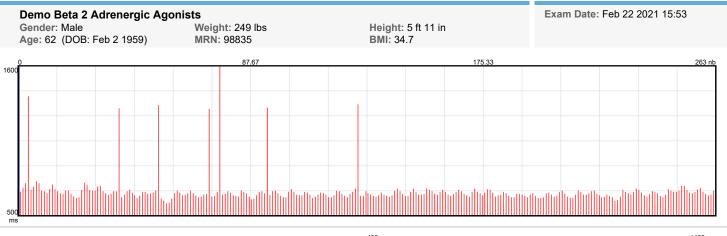
(Normal value: 0 Range from -3 to 3 Unfavorable values: higher than 1)



The score is clearly below average. It indicates very low mental stress. Stress in the recent past has had little or no effect on your mental-health. The negative effects of mental stress are very limited.

Physician's Notes:

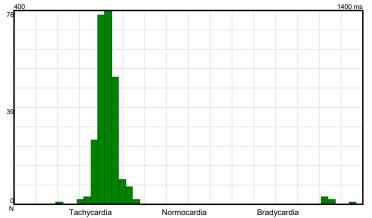
HEART RATE VARIABILITY ANALYSIS

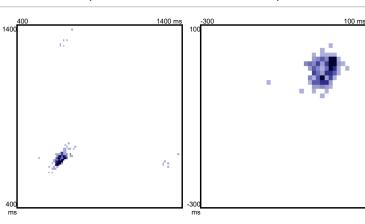


Total HeartBeats = 256	Artifacts = 7 (2.7%)	Signal Quality = Good
Parameters	Value	Units
HeartRate	90.41	bpm
ΑΜο	77	number
Мо	660	ms
SDNN	25.82	ms
SDNN5	15.54	ms
pNN50	1.96	%
rmsSD	21.53	ms
SDSD	21.52	ms

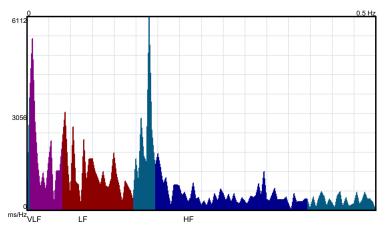
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Parameters	Value	Units
SD1	15.21	ms
SD2	33.19	ms
SD1/SD2	0.46	





Paramete	ers Peak(Hz)	Power(ms	s²)Power(%)	Power(n.u.)
VLF	0.02	95.33	15.38	
LF	0.08	143.98	23.23	27.45
HF	0.26	238.15	38.42	45.4
ТР		619.87		
LF/HF		0.605		



Physician's Notes:

VitalSCan Demo Beta 2 Adrenergic Agoni	ete	METABOLIC REPOR		Exam Date: Feb 22 2021 15:53
Gender: Male Age: 62 (DOB: Feb 2 1959)	Weight: 249 lbs MRN: 98835	Height: 5 ft BMI: 34.7	: 11 in	Exam Bate: 1 05 22 2021 10:00
ldeal Body Weight = 172 Lbs				
Real Body Weight = 249 Lbs Basal Metabolic Rate (BMR) = 2116 cal				
Total Daily Energy Expenditure = 2750 ca	I			
Normal	Borderline Normal	Mild - Moderate	Borderline Abnormal	Abnormal - Severe
Body Mass Index (BMI) = 34.7				
(Normal value range: 19 - 25)				

Body mass index, or BMI, is a new term to many people.

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However, it is the measurement of choice for many physicians and researchers and it is used to estimate a healthy body weight based on a person's height, assuming an average body composition.

It is the most widely used diagnostic tool to identify weight problems within a population. Body mass index is defined as the individual's body weight divided by the square of his or her height.

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The body mass index can be used to identify if you are overweight. A drawback of the calculation is that if you are muscular it can suggest you are overweight due to muscle density.

An elevated BMI is associated with Metabolic Syndrome and is tied to an elevated risk of type 2 diabetes, hypertension, and cardiovascular disease.

Risk of Associated Disease According to BMI and Waist Size

18.5 or less: Underweight - N/A

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- 19 25: Normal very low risk of associated diseases
- 26 29: Overweight prone to health risks 30 40: Overweight to Obese high risk of associated diseases
- 40 or greater: Extremely Obese very high risk of associated diseases

The Basal Metabolic Rate (BMR) shows the calories (energy) your body uses per day while at rest. The Total Daily Energy Expenditure shows the calories needed to maintain your current weight.

For healthy weight management increase your caloric usage (exercise) and decrease you caloric intake below the Total Daily Energy Expenditure towards the Basal Metabolic Rate (BMR).

Eating a high quality, nutrient dense diet (fresh vegetables (cooked and raw), chicken, fish, eggs, and yogurt) and staying away from carbohydrates and poor quality fats helps to prevent cravings and aids in weight loss. If you go too far below the Basal Metabolic Rate (BMR) your metabolism may slow down making weight management more difficult.

Physician's Notes:



SELF-ASSESSMENT QUESTIONNAIRE

Demo Beta 2 Adrenergic Agonists

Gender: Male Age: 62 (DOB: Feb 2 1959) Weight: 249 lbs MRN: 98835 Height: 5 ft 11 in BMI: 34.7 Exam Date: Feb 22 2021 15:53

Do you have a Pacemaker or had any heart surgery in the past?: Yes

Do you suffer or have experience any: Back Pain

Are you taking medication for: Angiotensin-converting enzyme (ACE) inhibitor, such as captopril (Capoten), enalapril (Vasotec), and lisinopril (Prinivil, Zestril) and have developed a cough, High Blood Pressure (hypertension)

Are you taking medication for: Beta 2 Adrenergic Agonists

Have you ever been diagnosed with any of the following: Asthma

Have you been recently diagnosed with any of the following: High Cholesterol, High Blood Pressure

Physician's Notes: