

Stress Response Analysis Report

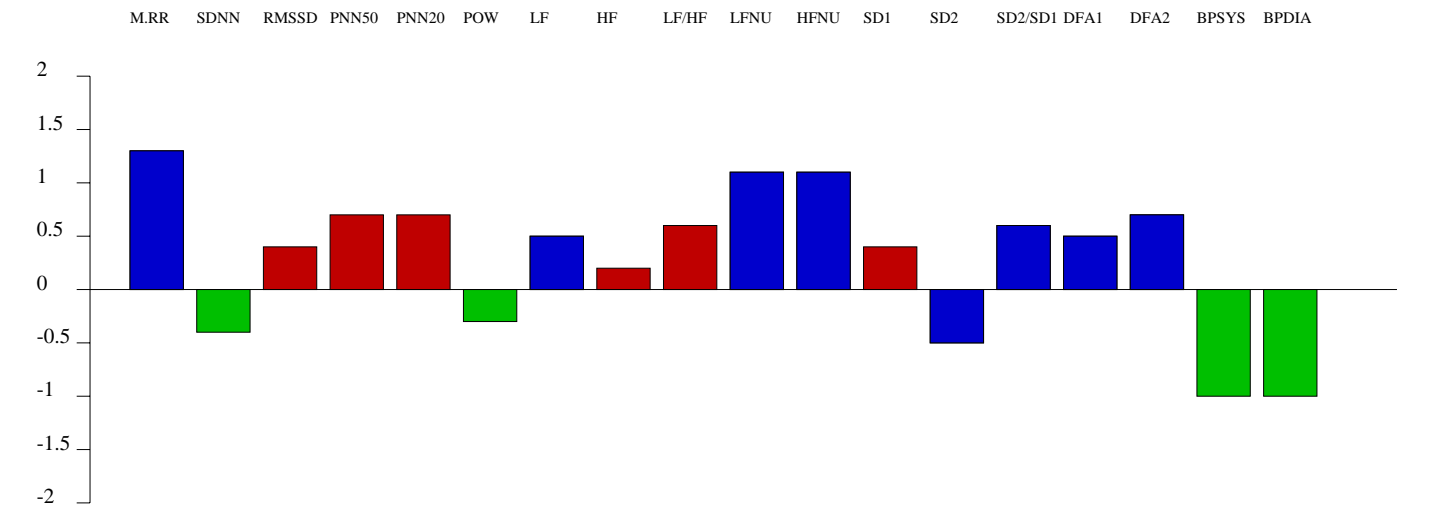
Name:prajeesh s Age: 26 Sex: MALE
Weight(in Kgs): 70 Height(in Cms): 175 Data Collected on: 2024-07-16

Thank you for participating in the Stress response analysis test conducted by Vyli Health.Your overall Stress response score based on Heart Rate Variability (HRV) and Blood Pressure (BP) is noted below.

Stress Response Score: 50

Reference Range:

Range	Response
0 to 25	Low Stress Response
26 to 50	Mild Stress Response
51 to 75	Moderate Stress Response
76 to 100	High Stress Response



Opinion/Advice :

Heart Rate Variability

Heart rate is controlled by the two branches of the autonomic (involuntary) nervous system. The sympathetic nervous system (SNS) and the parasympathetic nervous system (PNS). The sympathetic nervous system (SNS) releases the hormones (catecholamines - epinephrine and norepinephrine) to accelerate the heart rate. The parasympathetic nervous system (PNS) releases the hormone acetylcholine to slow the heart rate. The dynamic mediation of SNS and PNS on cardiovascular system results into continuous change in beat to beat intervals. This leads to Heart Rate Variability (HRV).

The analysis of the variations in beat to beat intervals provide insights into the mediation performed by sympathetic and parasympathetic branches of the autonomic nervous system. The most widely used methods for analysis of heart rate variability are,

- (i)Time Domain methods,
- (ii)Frequency Domain methods and
- (iii)Non-linear methods.

Time Domain Parameters :

Name	Short Explanation	Test Values	Normative Range
Mean RR	Mean of RR intervals	778.855	785-1160 ms
SDNN	Standard deviation of RR intervals	60.1153	27-67.6 ms
RMSSD	Root mean square of successive NN interval differences	35.3296	15.7-52.3 ms
NN50	Number of pairs of adjacent NN intervals differing by more than 50ms	38	-
NN20	Number of pairs of adjacent NN intervals differing by more than 20ms	169	-
pNN50	NN50 count divided by the total number of all NN intervals	10.2426	1-32 %
pNN20	NN20 count divided by the total number of all NN intervals	45.5526	30-74 %

Frequency Domain Parameters :

Name	Short Explanation	Test Values	Normative Range
VLF Power	Power in VLF range(0-0.04Hz)	1465.12	-
LF Power	Power in LF range (0.04-0.15 Hz)	1813.74	193-1009 ms ²

HF Power	Power in HF range (0.15-0.4 Hz)	434.364	82-3630 ms ²
LF/HF	Ratio LF power/HF power	4.176	1.1-11.6
LF norm	LF power in normalized units	80.679	39-77 n.u.
HF norm	HF power in normalized units	19.321	23-61 n.u.

Non linear Parameters :

Name	Short Explanation	Test Values	Normative Range
Poincare SD1	Poincare plot short term variability	24.9467	11.1-37.1 ms
Poincare SD2	Poincare plot long term variability	81.1538	35.5-83.9 ms
SD1/SD2	Poincare plot ratio	3.25309	0.27-0.53
DFA alpha1	Short-term fluctuations slope	1	0.76-1.2
DFA alpha2	Long-term fluctuations slope	1	0.65-1.09

*The Normative ranges given in the chart are based on the values given in reference 1 and 2.

Blood Pressure (BP)

Blood Pressure is the pressure of circulating blood on the walls of the blood vessels. It is expressed as Systolic and diastolic.

Name	Short Explanation	Test Values	Normative Range
BP Systolic	Maximum blood pressure during one heart beat		80-120 mmHg
BP Diastolic	Minimum blood pressure during one heart beat		60-80 mmHg

REFERENCES :

- (1) Andreas Voss, Rico Schroeder, Andreas Heitmann, Annette Peters, Siegfried Perz. Short-Term Heart Rate Variability - Influence of Gender and Age in Healthy Subjects.
- (2) David Nunan, Ph.D.; Gavin R. H. Sandercock, Ph.D.; David A. Brodie, Ph.D. A Quantitative Systematic Review of Normal Values for Short term Heart Rate Variability in Healthy Adults.