

Detailed Measurement Report


CS 00017112

Personal Info*

Gender **Male** Height **177 cm**

Date of birth **May 14, 1966**

Weight **85.8 kg**

 PI – 0.34 % PWV – 3.51 meter/sec

Medical Info*

COPD	No	Asthma	No
CHF	No	Epilepsy	No
A-Fib	No	Stroke	No
Hypertension	Yes	Heart attack - MI	No
Sleep Apnea	Yes	Vascular Disease	No
Diabetes	No	CHA ₂ DS ₂ -VAS Score	1

Measurements

Heart Rate  **65 bpm**

Blood Pressure  -- mmHg

Respiratory Rate  **15 rpm**

SpO₂  **97 %**

Name of medication*	Dosage	Times per day	Frequency
Larcapress	10mg	2	Every day
Litrova	40mg	1	Every day
Magnesium citrate (Oral Pill)	520mg	1	Every day
Micropirine	100mg	1	Every day
OZEMPIC (Injectable)	1.34 mg/ml 0.25 MG, 0.5 MG Dose Pen Injector 1.5 ml	1	Fri
Vector	160mg	1	Every day

Wellness

Steps  **198**

kcal  **455**

Sleeping hrs  **08:39**

*Info reported by the user

**We recommend sharing this report with your physician

Recording Summary

Time: Nov 27, 2023, 09:57 - 09:59

Recording Time: 2 minutes 10 seconds

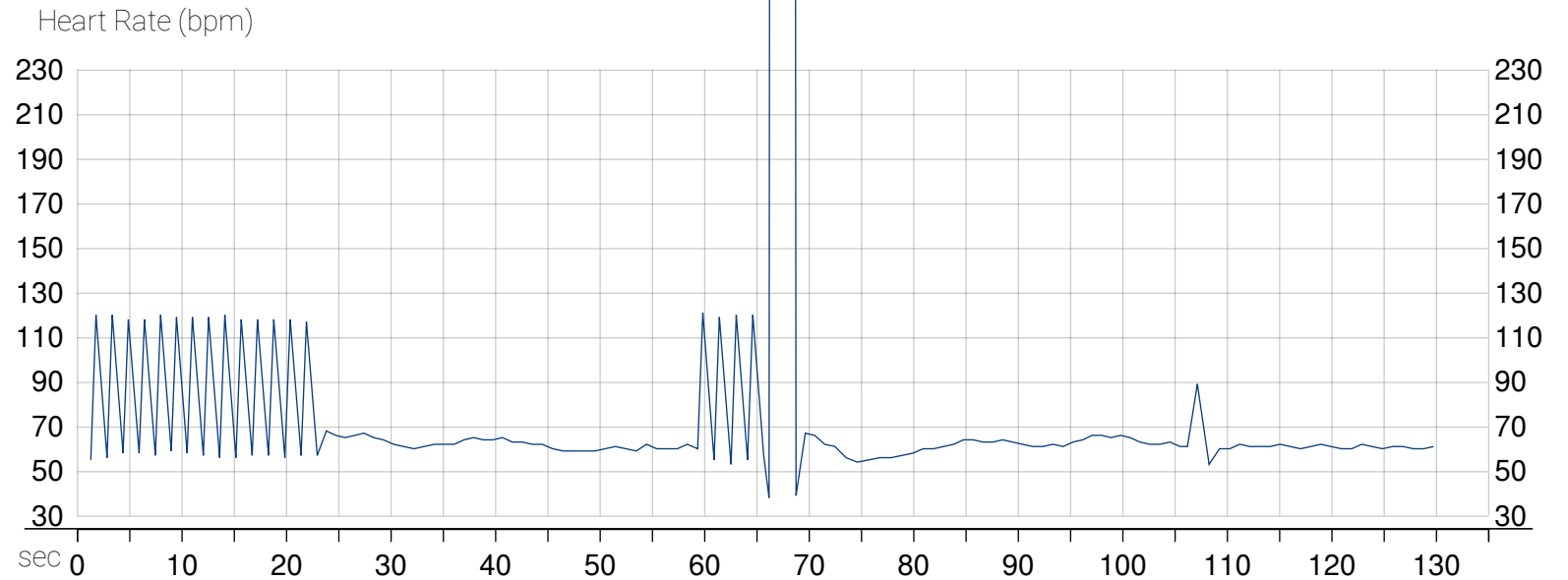
Heart rate

Total beats 143

Average HR 65 bpm

Slowest HR 38 bpm

Fastest HR 5000 bpm



PI (Perfusion Index) - The ratio of the pulsatile blood flow to the non-pulsatile blood flow.

PWV (Pulse Wave Velocity) - The velocity at which the blood pulse propagates. It may be used by your physician to estimate the measure of arterial stiffness/health.

ECG Parameters

QT (ms)	383
QTc (ms)	401
QTcF (ms)	395
PR interval (ms)	465
QRS duration (ms)	90

Integral Summary

Overall wellbeing (%)	75	●
Myocardium Score (%)	85	●
Stamina Score (%)	48	●
Emotional Score	42	●
Risk of heart disorders	58	●
Heart rhythm disorders	49	●
Stress level Normal	147	●

*Wellbeing (Non medical)

Pathological changes in the ECG were detected. Consultation with Healthcare Professional is required.

Heart Rate Variability

HR (bpm)	62	●
SDNN (ms)	41	●
RMSSD (ms)	21	●
Stress - index	147	●
Triangular index	11	●
PNN50 (%)	3	●
PNN20 (%)	25	
SDSD (ms)	14	
Autonomic balance 1 (LF/HF)	5.04	●
Autonomic balance 2 (IAE)	287.36	●
General level of bioenergy (TP)	1610.11	●
Activity of vasomotors centers of regulation	26.06	●
Activity of subcortical centers	3	●
Entropy	0.42	●
Fractal index	0.66	●
DFA	1	
VLF	420	
LF	1107	
HF	83	
LFn	93	
HFn	7	

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Heart Rhythm Events

Start min:sec:msec	End min:sec:msec	Name	HR bpm
00:00:250	00:22:996	Atrial bigeminy	76
00:25:684	00:40:715	First-degree atrioventricular block with normal sinus rhythm	64
00:42:605	00:59:387	Sinus arrhythmia	61
00:59:879	01:08:797	Atrial bigeminy	74
01:09:684	01:29:512	Sinus arrhythmia	60
01:30:469	01:45:535	First-degree atrioventricular block with normal sinus rhythm	64
01:46:238	01:46:238	Premature supraventricular contraction	61
01:47:188	01:49:301	Unclassified rhythm	57
01:51:238	02:09:797	First-degree atrioventricular block with normal sinus rhythm	61

Atrial bigeminy : Atrial bigeminy is a cardiac arrhythmia in which there is a single atrial ectopic beat, or irregular heartbeat, following each regular heartbeat.

First-degree atrioventricular block with normal sinus rhythm : First-degree atrioventricular block with normal sinus rhythm is quite common and is also usually benign. The manifestation of this disorder involves a prolonged P-R interval > 200 msec. In this situation, all of the sinus impulses conduct to the AV node. Although it requires no intervention, its presence can herald certain drug toxicities. Accompanied by normal sinus rhythm, i.e. sinus rhythm is the normal regular rhythm of the heart set by the natural pacemaker of the heart called the sinoatrial node.

Sinus arrhythmia : Sinus Arrhythmia is a normal variation in a beating of a heart. Sinus Arrhythmia refers to an irregular or disorganized heart rhythm and usually asymptomatic.

Premature supraventricular Supraventricular premature beats are atrial contractions triggered by ectopic foci rather than the sinoatrial node. They arise within the atria (atrial premature beats) or, through retrograde

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contraction: conduction, in the atrioventricular node (junctional premature beats).

Unclassified rhythm: This are distorted signals created when you move or unintentionally reposition an electrical device.

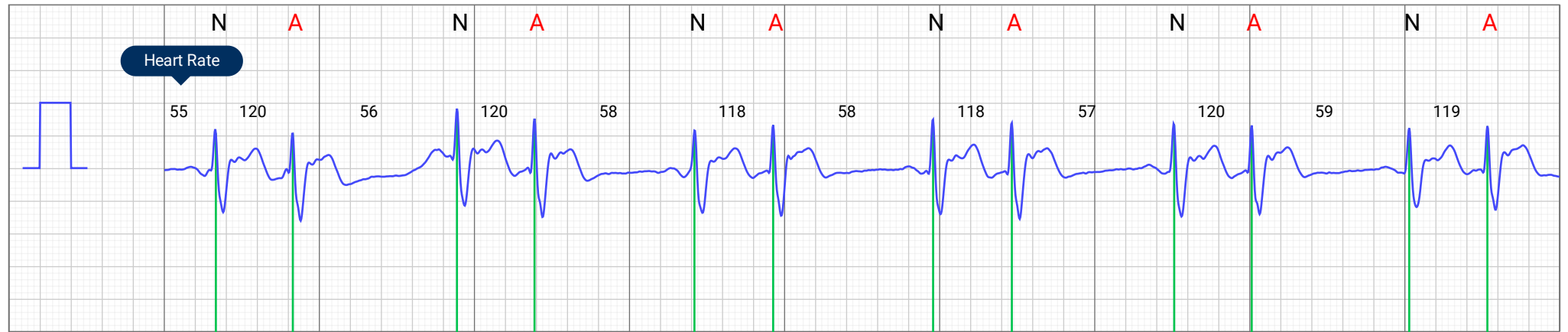
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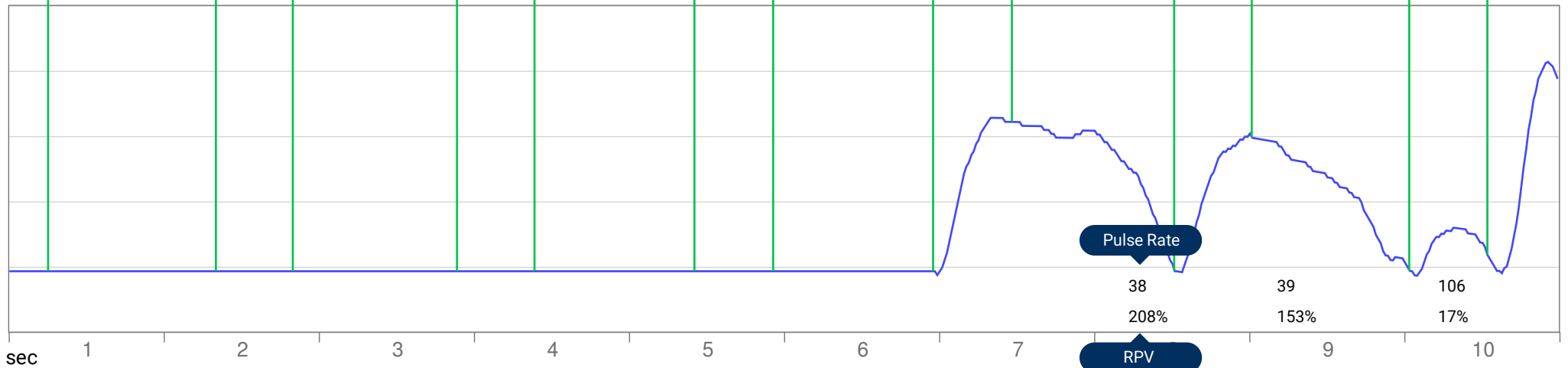
N - Normal **V** - PVC **A** - PAC **B** - Block **F** - Fusion **Q** - Unclassified

Lead I ECG

Scale: 25mm/s, 10mm/mV

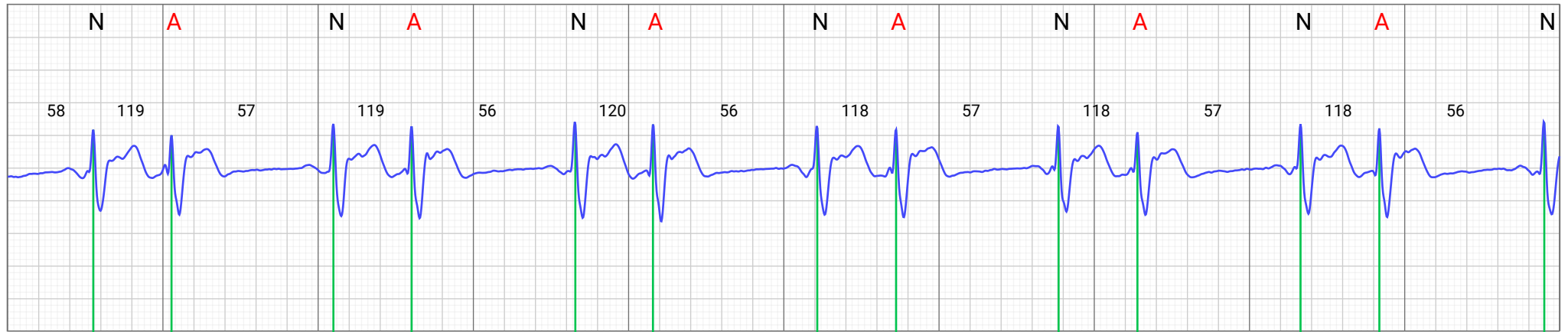


PPG

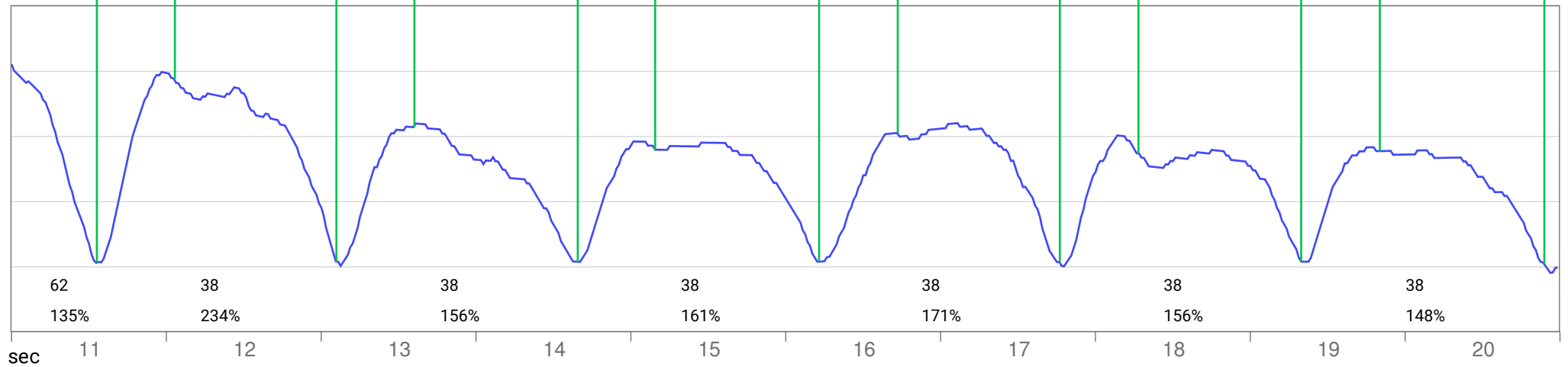


RPV (Relative Pulse Volume) The ratio of the area of a specific PPG pulse to the area of the median PPG pulse area. RPV is denoted in percentages over the PPG strip.

Lead I ECG

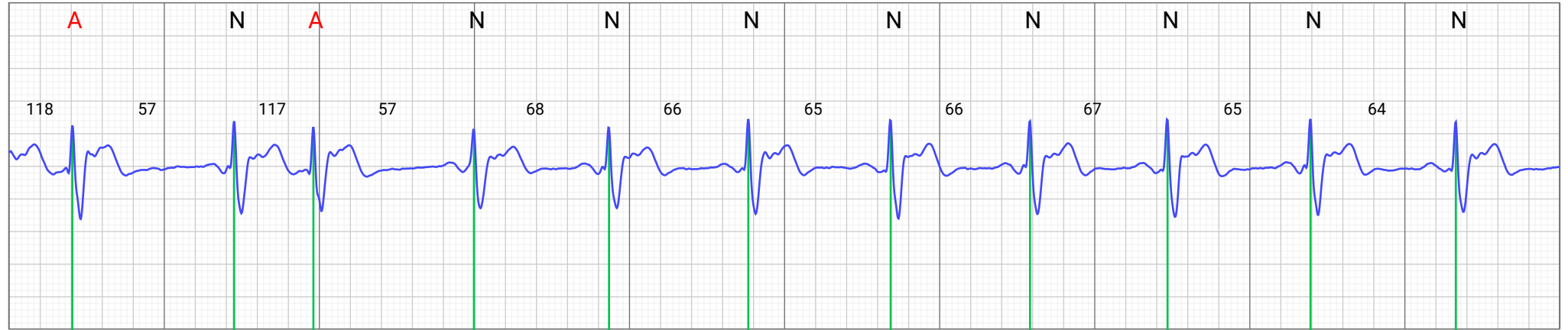


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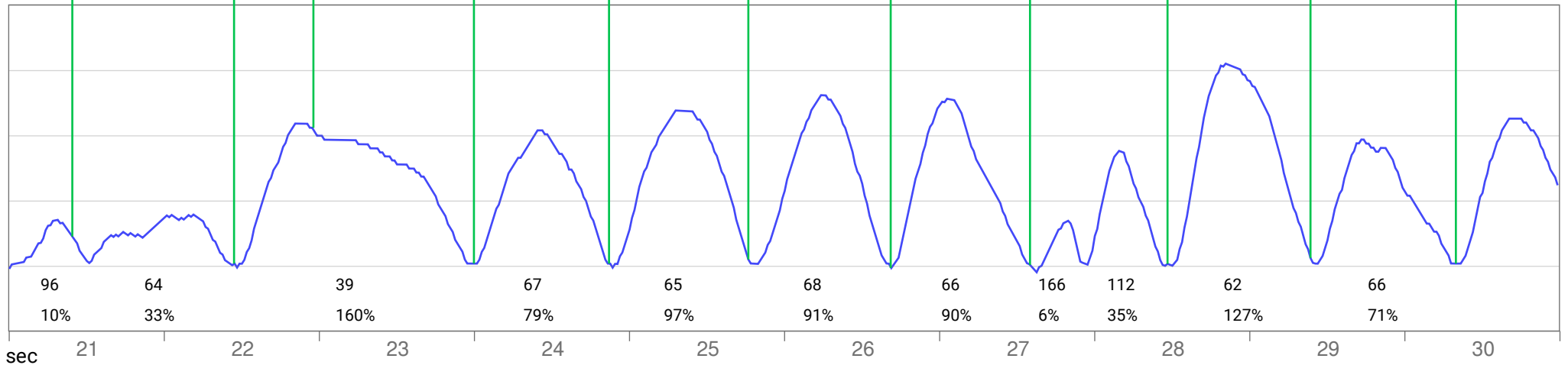


sec 11 12 13 14 15 16 17 18 19 20

Lead I ECG



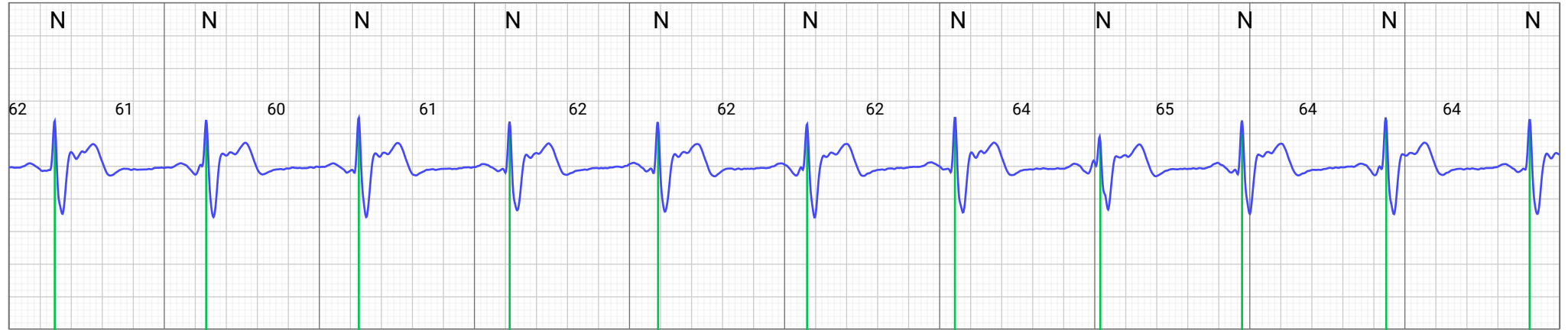
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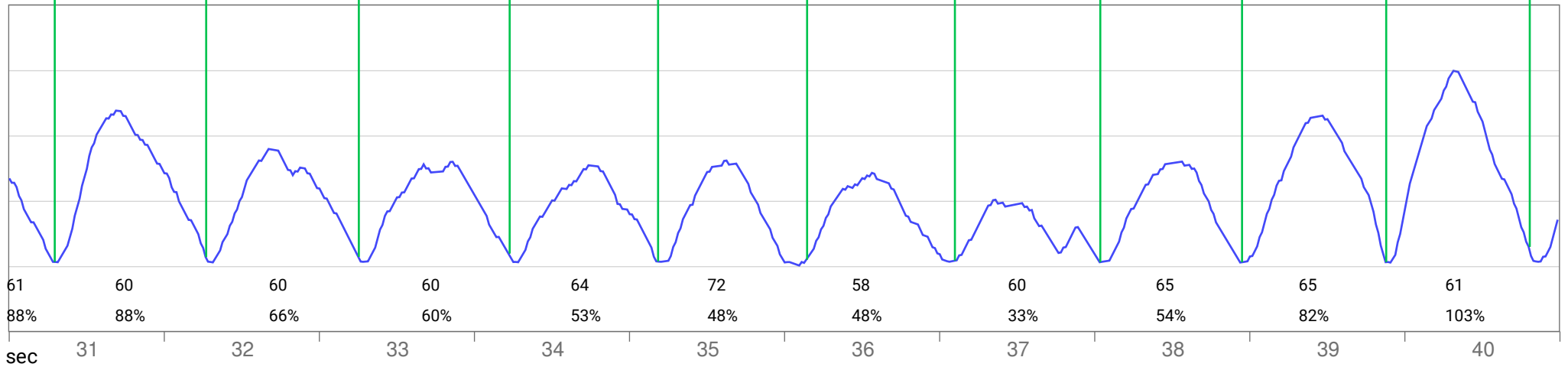
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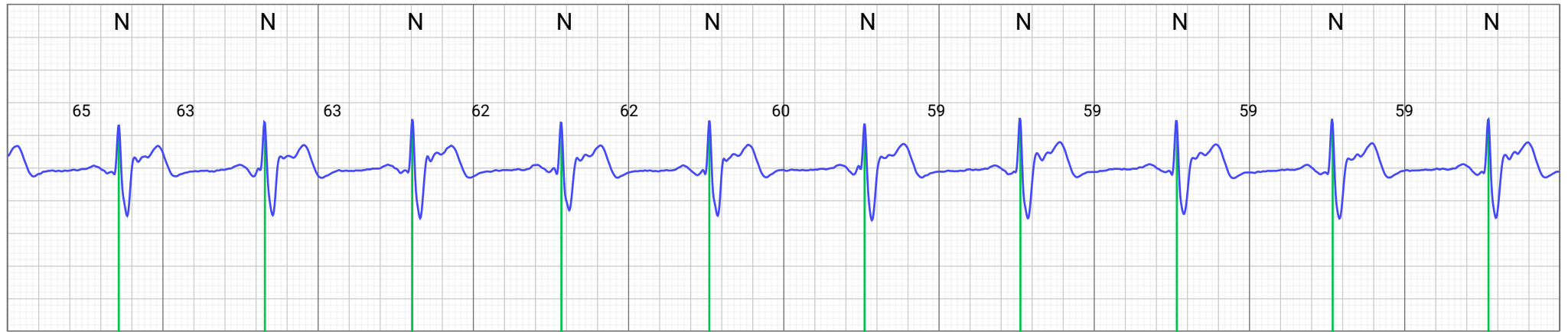
Lead I ECG



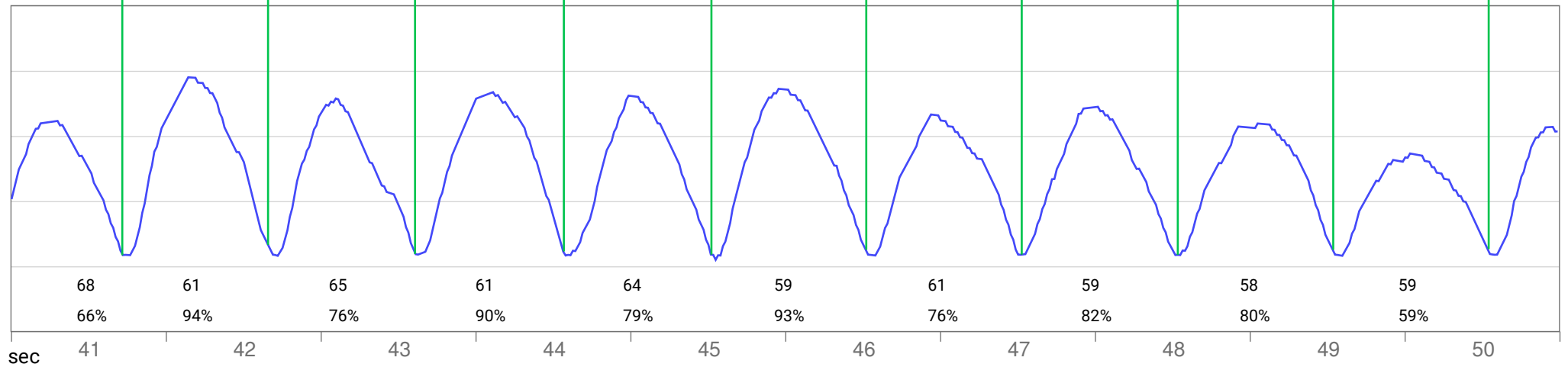
PPG



Lead I ECG



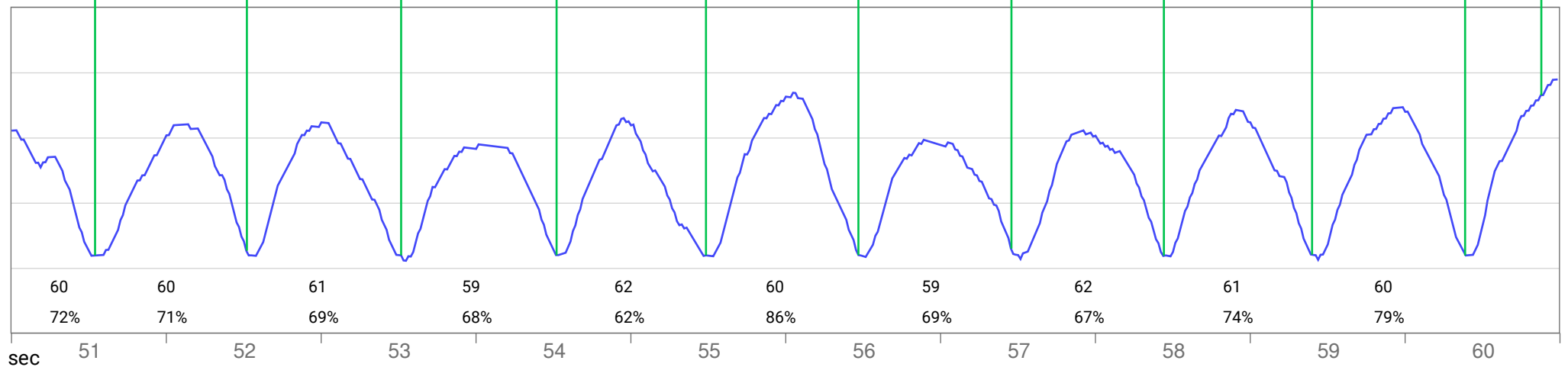
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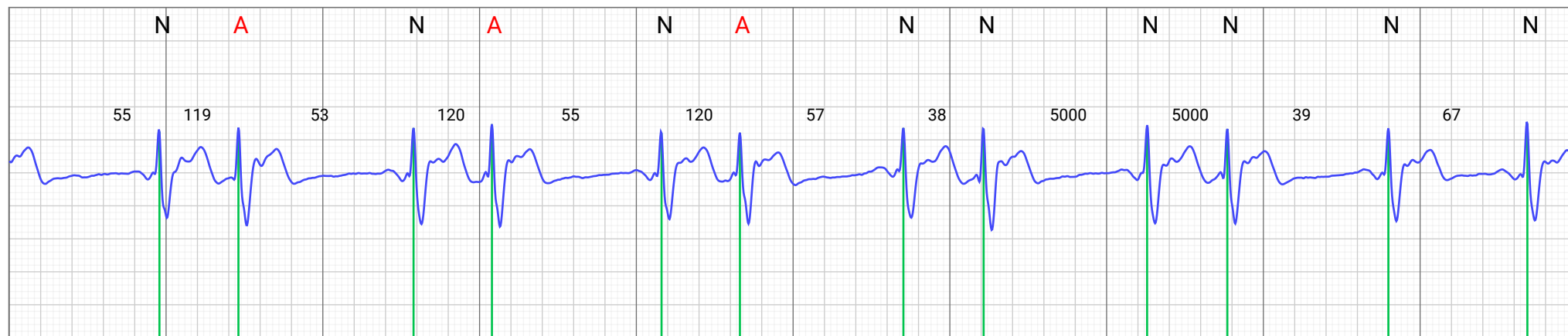
Lead I ECG



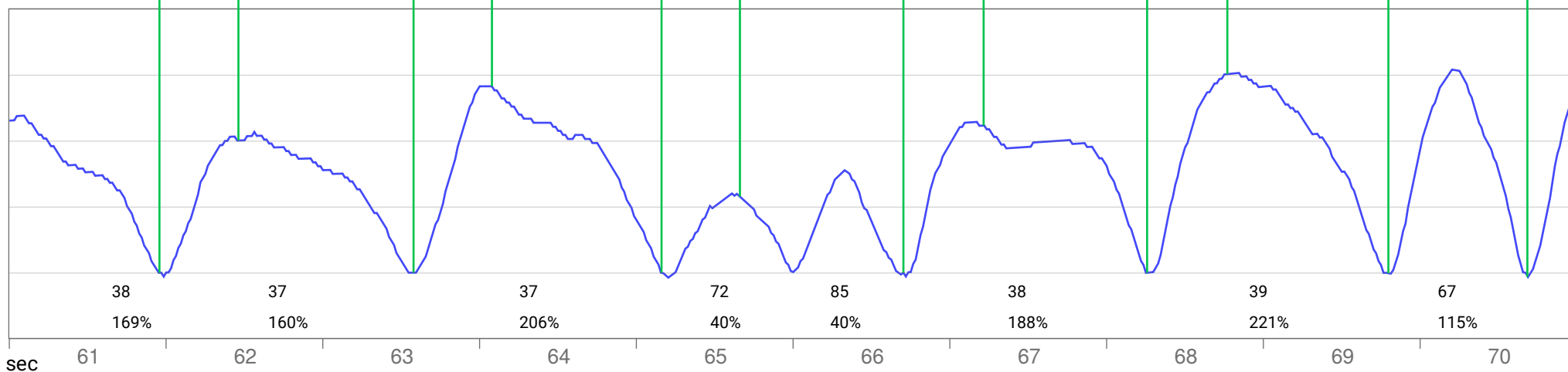
PPG



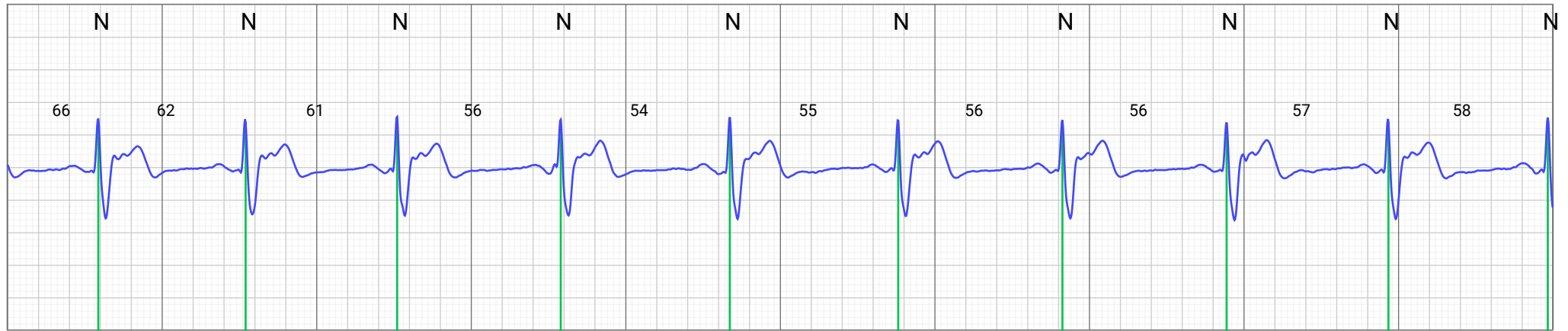
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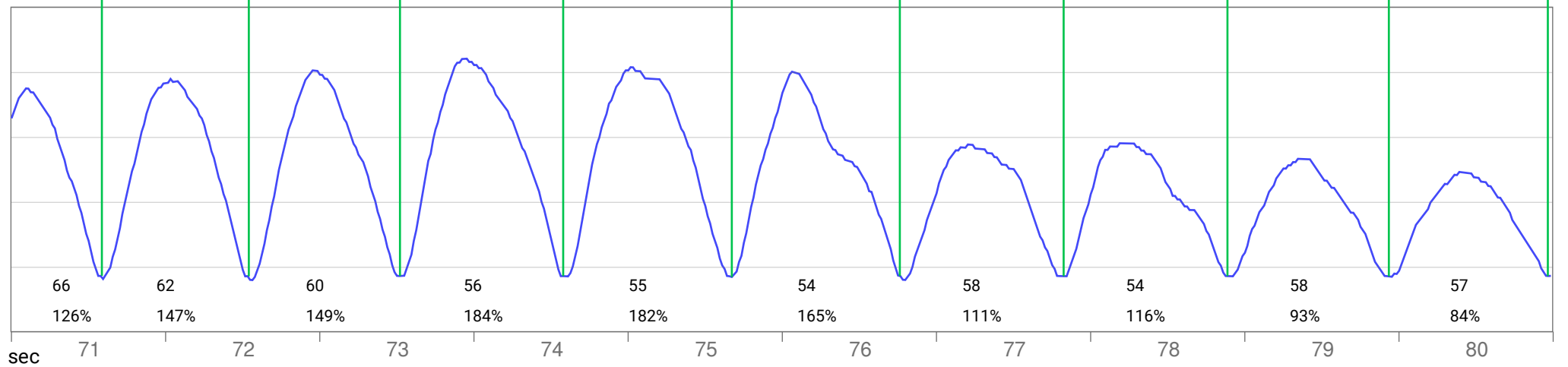
PPG



Lead I ECG



PPG

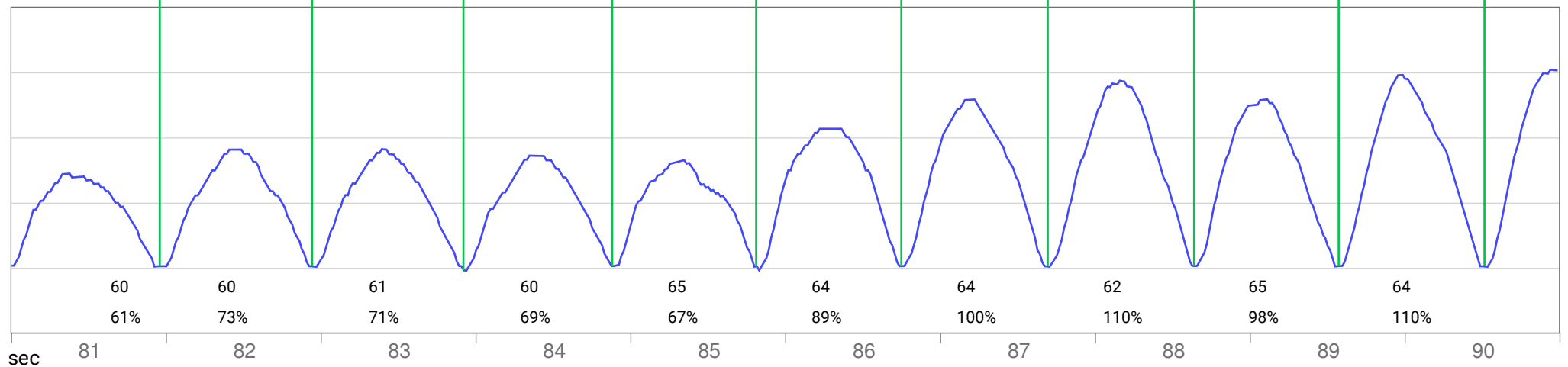


sec 71 72 73 74 75 76 77 78 79 80

Lead I ECG

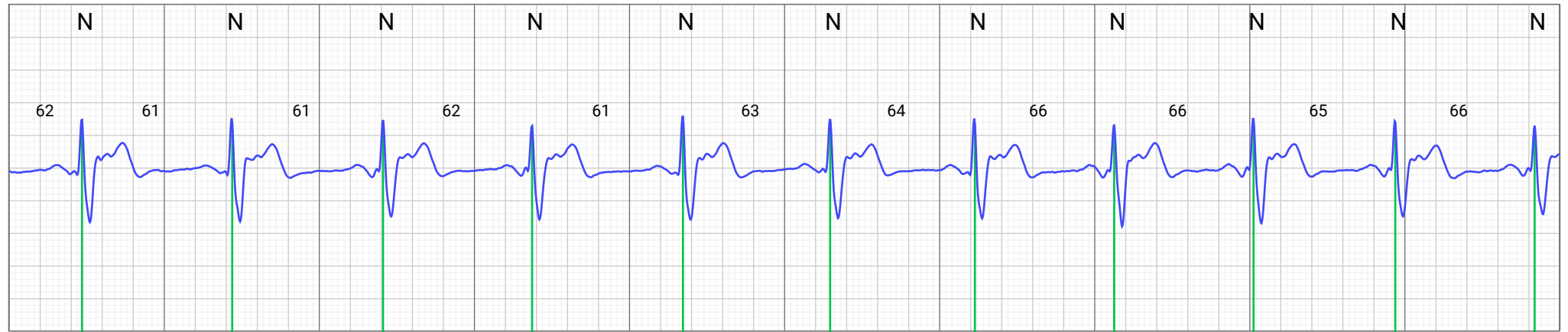


PPG

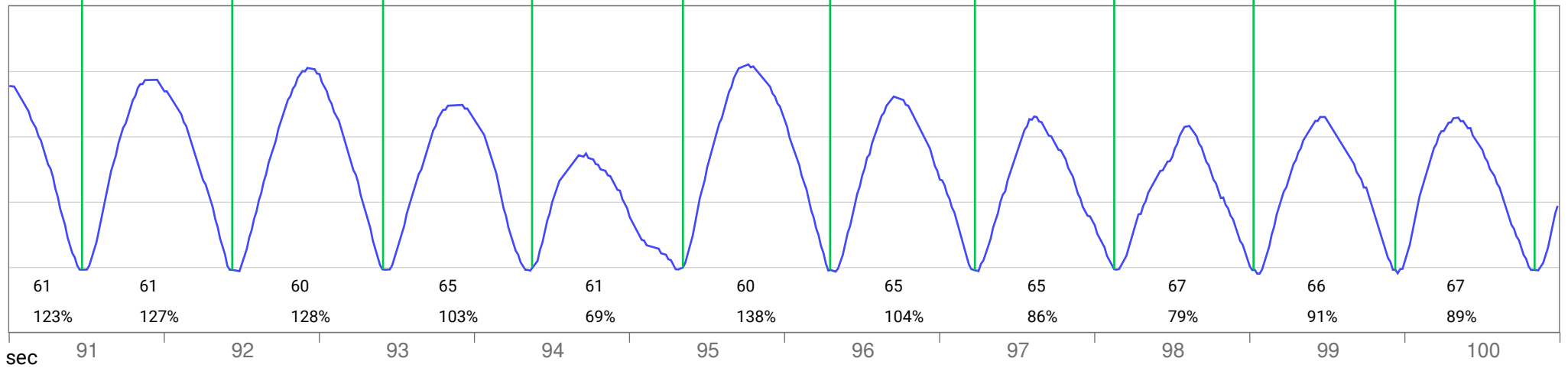


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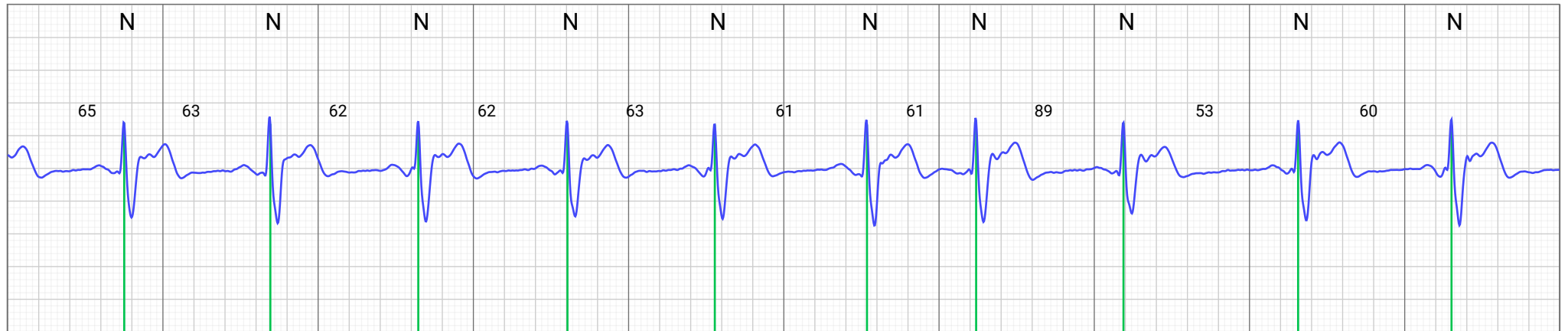
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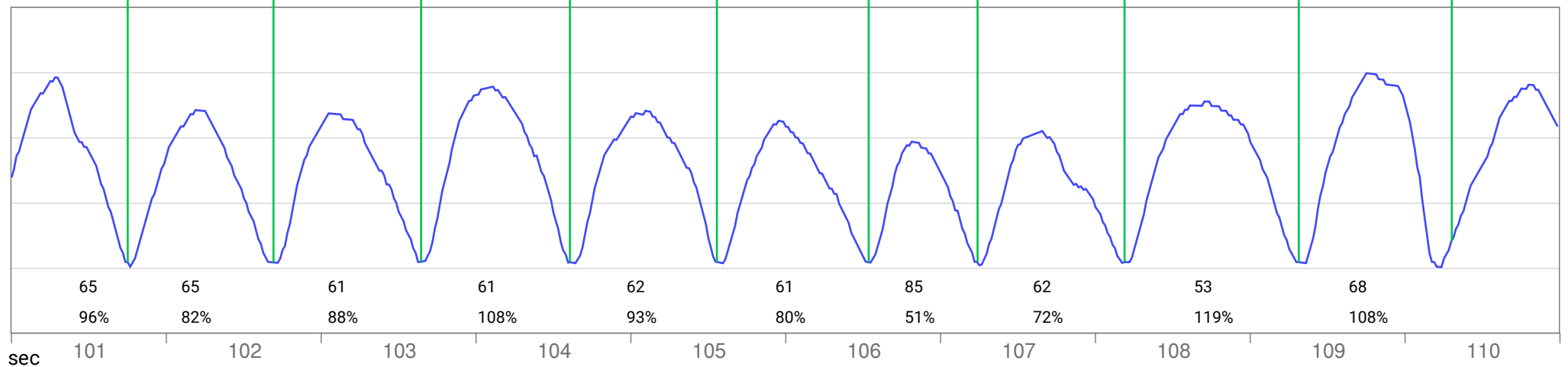
PPG



Lead I ECG

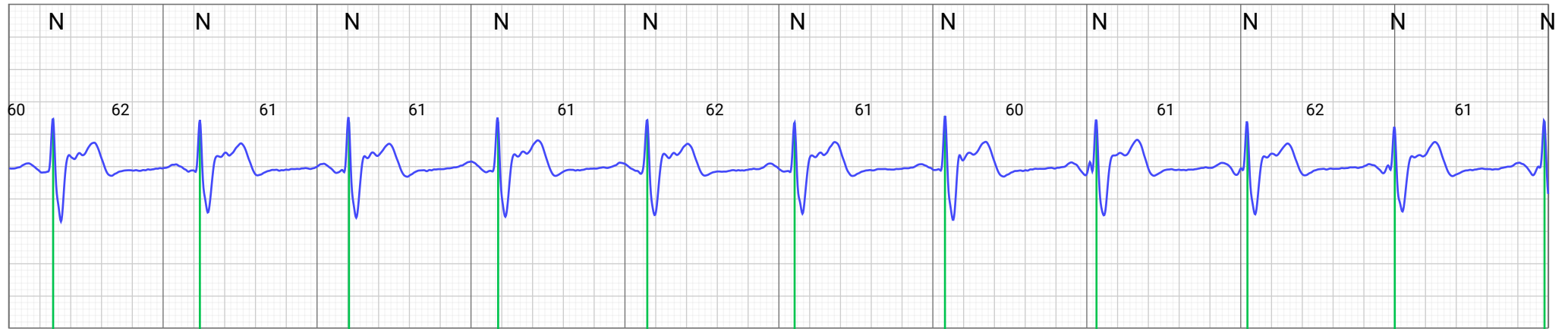


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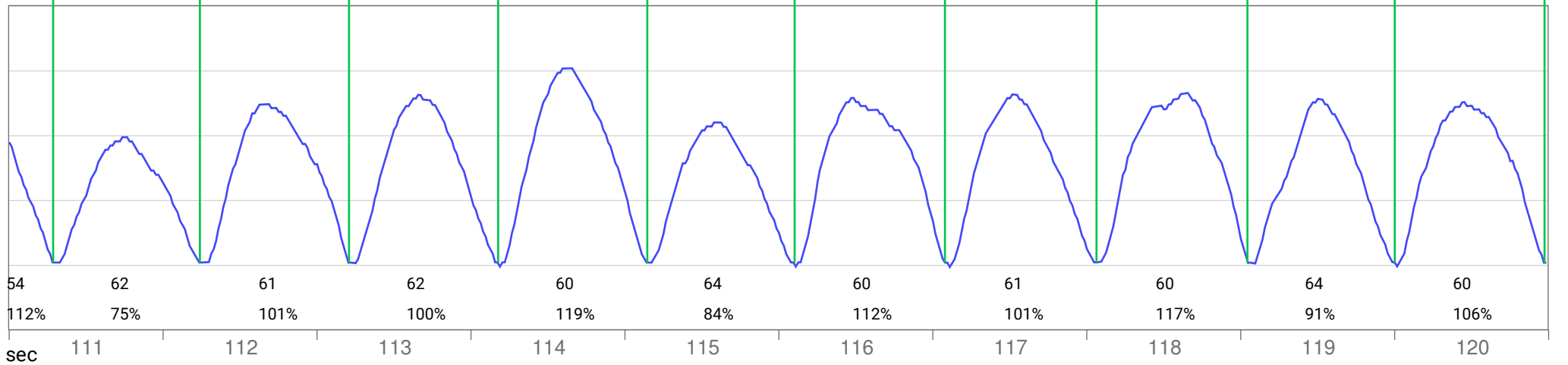


sec 101 102 103 104 105 106 107 108 109 110

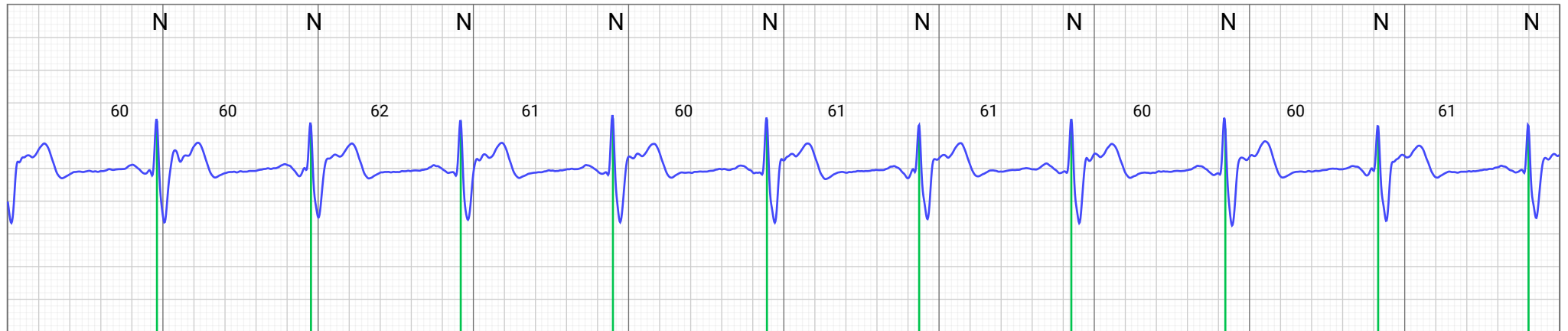
Lead I ECG



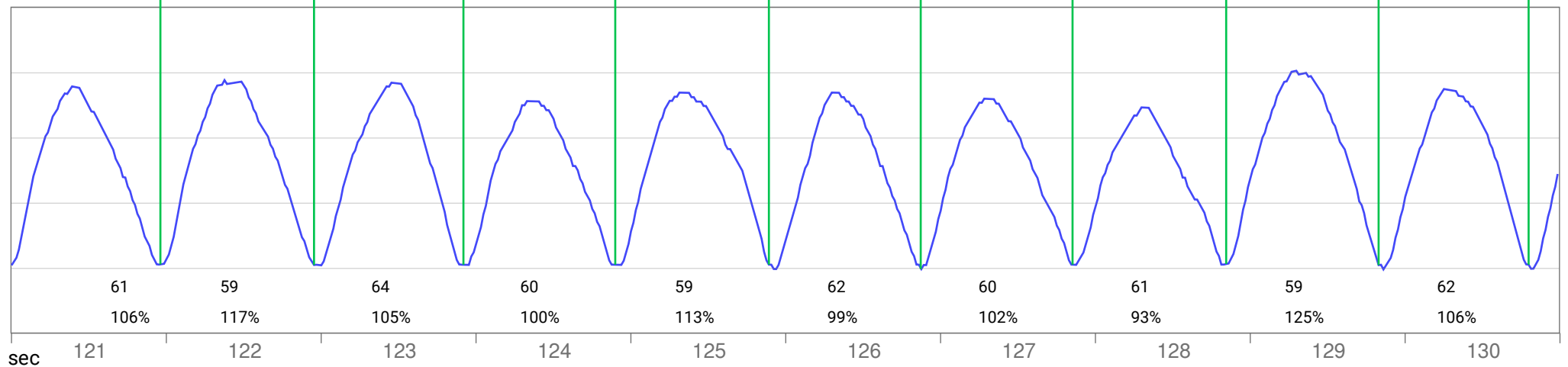
PPG



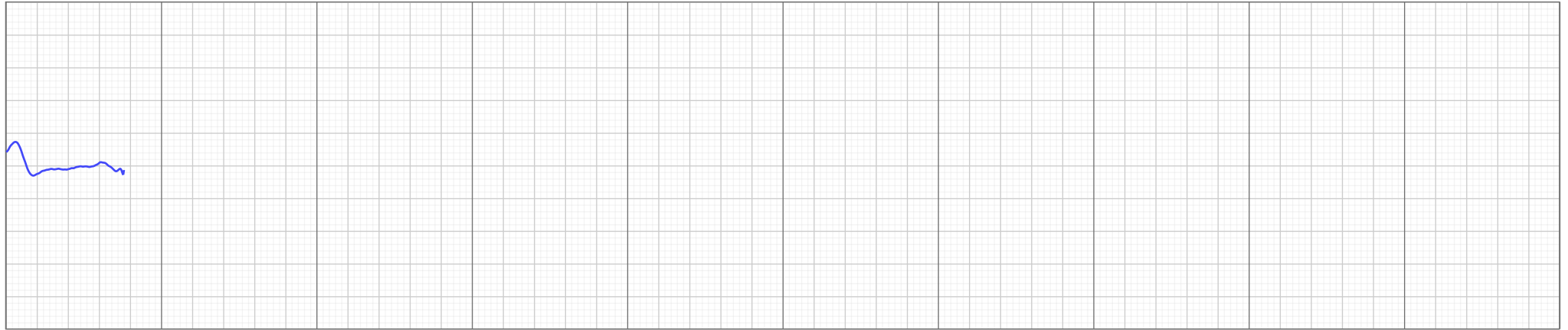
Lead I ECG



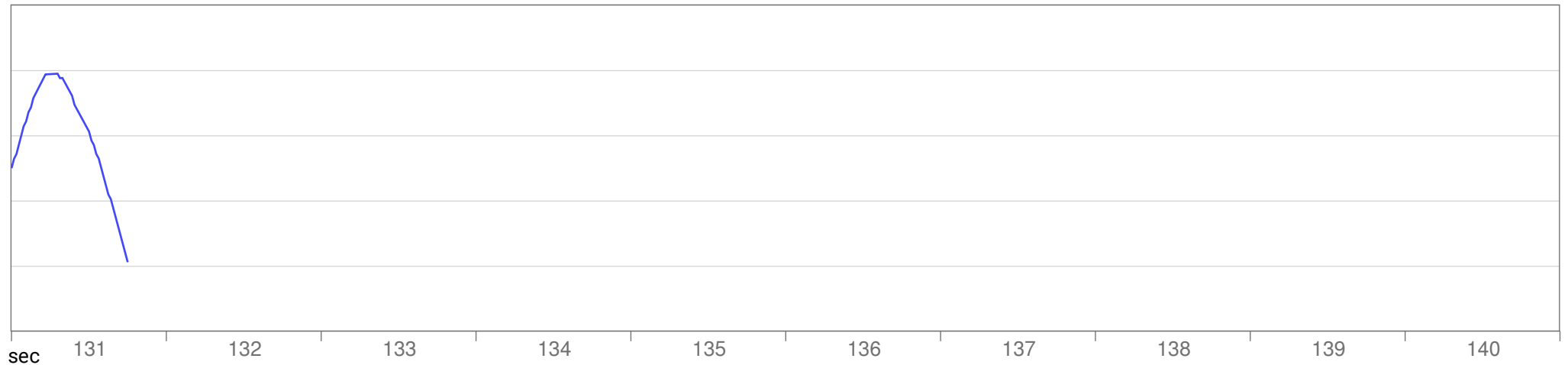
PPG



Lead I ECG



PPG



* Since the printout is dependent on printer scale the hard copy printout cannot be used to scale with a ruler

Appendix

Values in the Graph

RPV (Relative Pulse Volume) The ratio of the area of a specific PPG pulse to the area of the median PPG pulse area. RPV is denoted in percentages over the PPG strip.

PI (Perfusion Index) is a numerical value that reflects the strength of the pulsatile signal in a patient's peripheral perfusion, usually measured by a pulse oximeter. The PI is calculated by dividing the pulsatile blood flow component by the non-pulsatile blood flow component, expressed as a percentage or decimal value. In other words, PI is a measure of the amount of blood flow in the patient's tissues, particularly the peripheral tissues such as fingers, wrists, or toes. It is a useful clinical parameter to monitor a patient's perfusion status, especially in critical care settings, where it can provide an early warning of deteriorating hemodynamic conditions. High PI values may indicate good peripheral perfusion, while low PI values may indicate poor peripheral perfusion, which could be due to factors such as hypotension, hypothermia, hypovolemia, or peripheral vascular disease. However, it's important to note that the interpretation of PI values should be done in conjunction with other clinical parameters and the patient's overall condition.

PWV (Pulse Wave Velocity) This is a measure of the speed at which the arterial pressure wave travels through the arterial system. It is a widely used indicator of arterial stiffness and is used as a marker of cardiovascular health. PWV is typically measured by recording the pressure waveform at two different sites along an arterial segment. The distance between the two recording sites is then divided by the time taken for the pressure wave to travel between them, resulting in a velocity measurement in meters per second (m/s) or centimetres per second (cm/s). A higher PWV value indicates stiffer, less compliant arteries, which is associated with increased cardiovascular risk. This is because stiffer arteries can lead to increased systolic blood pressure and pulsatile stress on the heart, which can increase the risk of cardiovascular events such as heart attack or stroke. On the other hand, a lower PWV value is associated with better arterial compliance and reduced

cardiovascular risk. PWV measurement has been incorporated into many clinical studies and is being used as a diagnostic tool in the evaluation of cardiovascular diseases, including hypertension, coronary artery disease, and heart failure.

PPG (Photoplethysmography) An optical technique for detecting blood volume changes in the microvascular bed of tissue.

ECG Parameters

QT Interval - The interval from the beginning of the QRS complex to the end of the T wave. Normal QT interval is below 400 to 440 milliseconds (ms). It is calculated as the time from the start of the Q wave to the end of the T wave, and approximates to the time taken from when the cardiac ventricles start to contract to when they finish relaxing.

Corrected QT interval (QTc) - Definitions of normal QTc vary from being equal to or less than 400 ms, 410 ms, 420 ms or 440 ms. The QT interval changes in response to the heart rate - as heart rate increases the QT interval shortens. The QT interval can be corrected for heart rate using a variety of mathematical formulae.

QTcF (Corrected QT Interval using Fridericia's formula) - Normal Value is equal to or less than 420 ms.

PR Interval - The normal value of PR Interval is 120 to 200 ms. The PR interval is measured from the beginning of the P wave to the beginning of the QRS complex. This interval reflects the time the electrical impulse takes to travel from the sinus node through the AV node.

QRS Duration - QRS duration normal value is from 80 to 100 ms.

Appendix

Integral Summary

Overall wellbeing - Overall heart wellbeing score is a general estimation of your current physical and emotional wellbeing on the scale from ideal state (100-75%) to a bit imbalanced (75-50%) and moderately imbalanced (50-25%).

Myocardium Score - Myocardium score is a basic estimation of heart muscle state. It reflects the state of the heart muscle (myocardium) and cardiac conduction system.

Stamina Score - Stamina is a measure of the total functional reserves of your body. The functional reserve is the supply of vitality, which can be used for adaptation, in other words, in response to various "challenges", internal and / or external adverse circumstances. This integral indicator is based on a combination of various parameters of Heart Rate Variability. Heart Rate Variability (HRV) is a small fluctuation in the time intervals between heartbeats, reflecting multilevel autonomic regulation of heart rate.

Emotional score - Cardio interval spectral analysis based index. Represents the emotional state at the present time.

Risk of heart disorders - It is an integral score reflecting the probability of sudden cardiac death based on HRV and ECG time and amplitude parameters.

Heart rhythm disorders - Heart rhythm disorders is a condition that involves irregularities in heart beats, frequency and sequence in excitation and contraction of the heart. Heart rhythm disorder is classified by a degree of hazard. Availability of threatening ventricular arrhythmias is a strong predictor of "arrhythmic" deaths. Less dangerous arrhythmias indicate about functional reserve decrease.

Stress level Normal - Stress is a physical, mental, or emotional factor that causes bodily or mental tension. Stress Index measures physiological stress, which has proven to be a reliable predictor of future health problems in cases of prolonged high physiological stress levels.

Heart Rate Variability

HR (bpm) - Heart rate (HR) is the speed of the heartbeat measured by the number of contractions of the heart per minute (bpm)

SDNN (ms) - Standard deviation of Normal-to-Normal intervals is the measure of overall heart rate variability, the level of overall adaptive potential of autonomic regulation.

RMSSD (ms) - Measures beat-to-beat variability, represents rapid fluctuations in heart rate, characterises parasympathetic regulations.

Stress - index - Stress is a physical, mental, or emotional factor that causes bodily or mental tension. Stress Index measures physiological stress, which has proven to be a reliable predictor of future health problems in cases of prolonged high physiological stress levels.

Triangular index - Represents primarily the parasympathetic tone.

PNN50 (%) - Represents the activity rate of the parasympathetic regulation.

PNN20 (%) - Represents the activity rate of the parasympathetic regulation

SDSD (ms) - Standard deviation of differences between adjacent NN intervals. It characterises the acidification of myocardial lactate.

Autonomic balance 1(LF / HF) - Ratio of sympathetic and parasympathetic regulation.

Autonomic balance 2(IAE) - Autonomic balance index to represent the ratio of sympathetic and parasympathetic parts of the autonomic nervous system.

General level of bioenergy(TP) - Bioenergy indicates a level of long - term durability of heart as well as sufficiency of fitness activity.

Appendix

Activity of vasomotor centers of regulation - Specific activity of medulla oblongata vasomotor center.

Activity of subcortical centers - Specific activity of subcortical sympathetic nerve centers ergotropic.

Entropy - Entropy of cardiointervals.

Fractal index - Similarity degree of cardiointeravls.

DFA - Similarity degree of cardio intervals, another approach.

VLF - Absolute spectral power in domain of very low frequency waves, represents the measure of subcortical sympathetic activity ergotropic centers.

LF - Absolute spectral power in domain of low frequency waves, represents a measure of the baroreflex center activity(primarily - sympathetic activity).

HF - Absolute spectral power in domain of high frequency waves, represents the measure of nuclei acitivity of the vagus nerve (parasympathetic activity).

LFn - Normalized spectral power in domain of low frequency waves, represents a measure of the baroreflex center activity (primarily - sympathetic activity).

HFn - Normed by the sum of LF+HF spectral capacity of high frequency waves. Represents the measure of relative contribution of the parasympathetic part of the autonomic nervous system into the regulation of heart rate.