PNOÉ

FITNESS REPORT

[redacted]

05/11/2022

Disclaimer The Assessment is intended for information purposes only and is not intended to be a substitute for professional medical advice, diagnosis or treatment. Consult your physician before engaging in an exercise program and/or changing your diet as a result of the information provided by this Assessment. Participating in any workout regimen may result in an increased risk of physical injury based on the nature, frequency, intensity, and duration of the workout regime.

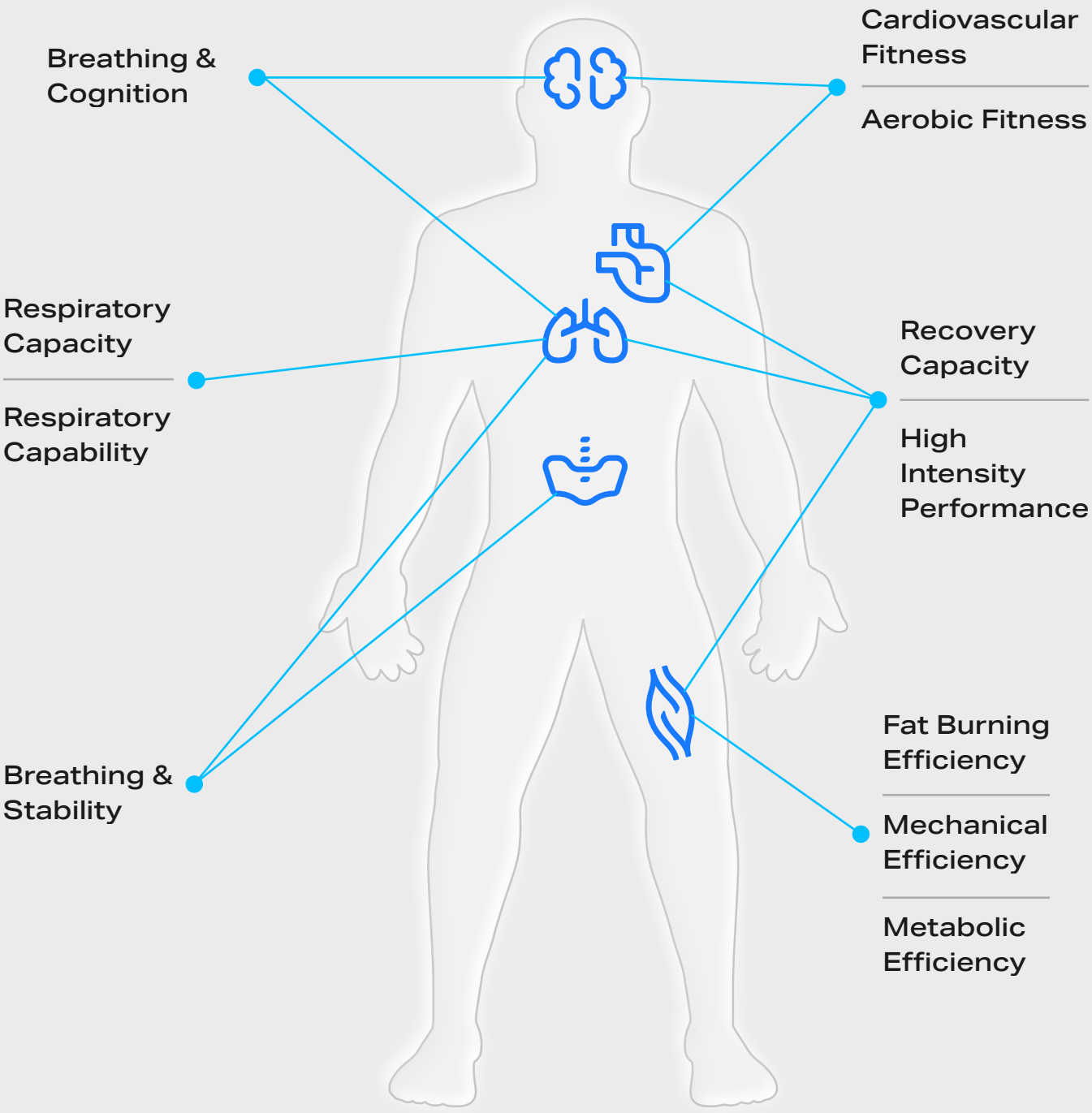
We are what we repeatedly do.

Excellence, then, is not an act but a habit.

Intro

PFJ

Overview



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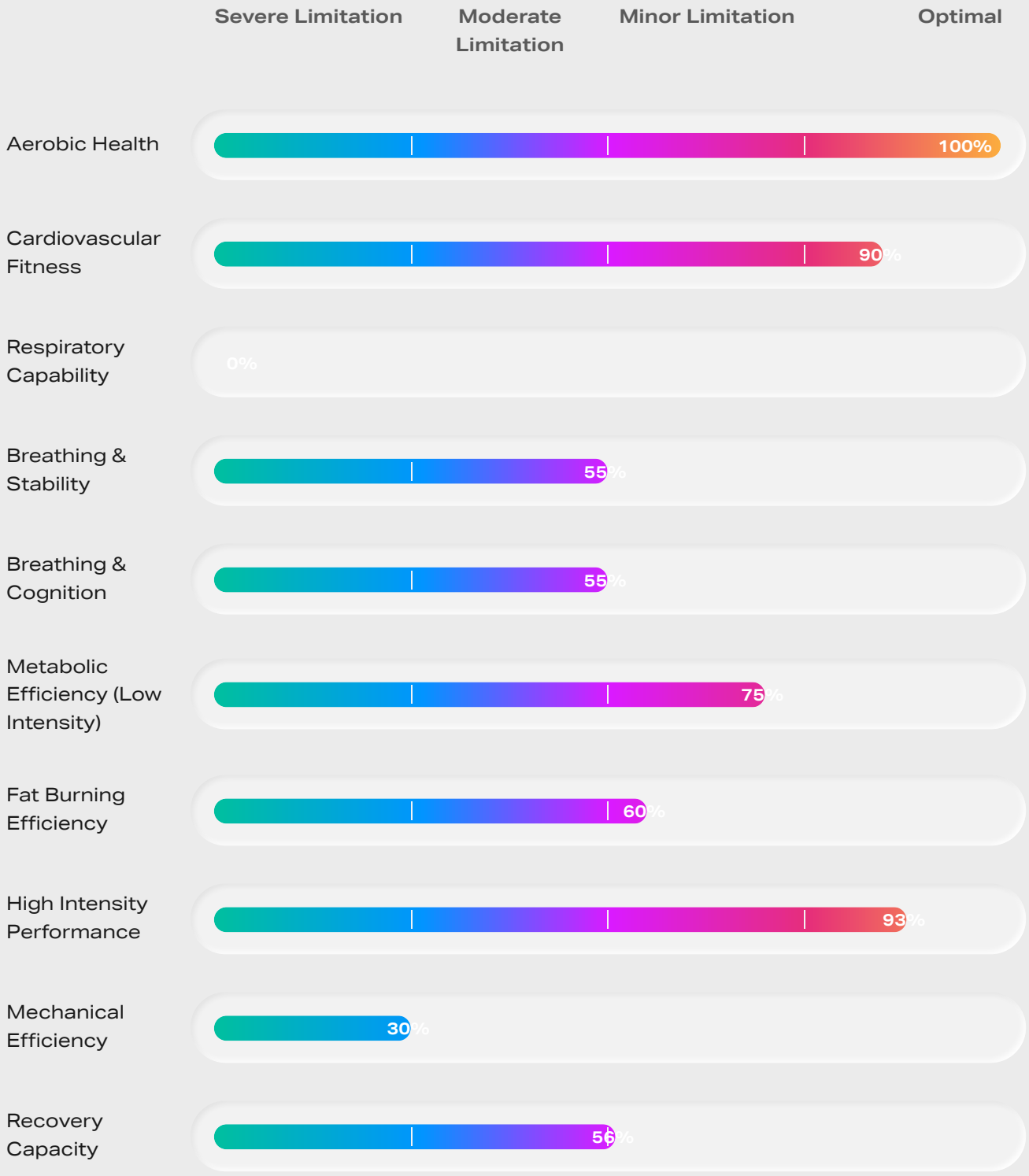
Overview



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Aerobic Health

This metric represents your ability to exercise at high intensities. Aerobic health is one of the best indicators of overall health and best predictors for developing cardiovascular disease. The value of this metric is based on VO2peak – the maximum amount of oxygen you can use per kilogram per minute – achieve during your test.

A sedentary lifestyle, lack of cardiovascular exercise or excessive weight training will lower this score. Cardio and interval training will improve the score of this metric.

Cardiovascular Fitness

This metric represents your cardiovascular systems (heart, blood vessels and blood) ability to deliver oxygen to your muscles and will indicate if this system poses a limitation to your ability to exercise and function. The value of this metric is based upon your VO2peak score in comparison with others the same gender and age, as well as the trendline of your VO2pulse (the amount of oxygen used per beat of the heart (VO2/HR) as intensity increases).

A low VO2peak in combination with a decline in your VO2pulse during your test will reduce your cardiovascular score.

A sedentary lifestyle and a lack of cardiovascular training or excessive weight training will lower your cardiovascular score whereas low intensity cardio and interval training will improve it.

Respiratory Capacity and Respiratory Capability

This metric represents your respiratory systems (lungs, respiratory muscles, and thoracic and rib mobility) ability to effectively provide oxygen to your muscles and will indicate if this system poses a limitation to your ability to exercise and function. The value of this metric is based upon three metrics:

1. Respiratory capacity which is measured using two values assessed through spirometry
    a. The maximum volume of air you can breathe in (FVC)
    b. The maximum volume you can breathe out in one second (FEV1)
2. Respiratory capability which is your ability to USE your capacity during exercise based upon two values measured by the PNOĒ unit throughout your Fitness Test
    a. The volume of air you move per breath (Tidal Volume or VT)
    b. The frequency you breath per minute (Breathing frequency or BF)

An inability to use your capacity and a high breathing frequency at any intensity throughout the test will reduce your Respiratory Capability score.

A sedentary lifestyle, history of asthma or exercise induced bronchospasm (EIB) or a lack of cardio or interval training will lower the score of this metric. Limitation specific breathing exercises concentrating on frequency and volume in conjunction with cardio and interval training is the most effective way to improve your score.

Breathing and Cognition

This metric represents how your breathing frequencies are affecting the amount of carbon dioxide (CO2) in your blood/cells. A low level of CO2 (hypocapnia) due to breathing too quickly (hyperventilation) will lead to vasocontriction of the vessels in the brain resulting in less oxygen being available to your brain cells thereby affecting your cognition (the ability to think and react rapidly).

This score is based upon two metrics:

1. Your breathing frequency at different intensities during the test
2. The amount of carbon dioxide you exhale during the test

A high breathing frequency (hyperventilation) at one or more intensity level in combination with low CO2 levels being exhaled during the test will result in a lower score.

More than 10% of people chronically hyperventilate without knowing it and are reducing their cognitive capacity through incorrect breathing. Limitation specific respiratory training exercises concentrating on coordinating breathing volumes and breathing frequencies is the best method of improving this score.

Breathing and Stability

This metric represents how your respiratory volumes are affecting your spinal stability, limb power and posture. Your score is based upon your tidal volumes (VT) or the volume of air you breath per breathe throughout your test.

Breathing a low volume of air each breath during the test will lead to decreased spinal stability thereby affecting your ability to develop power at your limbs and ability to maintain an upright posture.

A low VT in relation to your respiratory capacity (FEV1) will result in a lower score. A low VT (along with hyperventilation) is a predictor of musculoskeletal dysfunctions such as lower back pain. Limitation specific respiratory training exercises concentrating on volume is the most effective way to improve the score of this metric.

Fat Burning Efficiency

This metric represents your muscle cells ability to utilize oxygen and burn fat as a fuel source. Fat burning efficiency is highly correlated with cellular health. The score of this metric is based on the heart rate at which you attain the crossover point (the point when you start burning more carbohydrates than fat) in relation to your maximum and starting heart rate during the test.

A sedentary lifestyle, lack of cardiovascular exercise or excessive weight training will lower the score of this metric. Low to medium intensity cardio training in Zone 2 and Zone 5 intervals will improve your score.

Metabolic Efficiency (Low Intensity)

This metric represents the number of calories you burn during exercise and whether you are burning more or less calories than the average person of the same age, gender, height and weight. This metric does not represent your resting metabolic rate (RMR). PNOĒ can provide you with your RMR through a separate testing protocol.

The value of this metric is based on the calories burned during the initial stages of the protocol. Caloric restriction, chronic dieting and excessive cardio training are among the most common factors that reduce the value of this metric. Strength training in combination with re-feeding cycles will improve the score of this metric.

High Intensity Performance

This metric represents how well you use oxygen at higher intensities. The value of this metric is based upon how well you use oxygen (VO2) per beat of heart (VO2/HR or VO2pulse) and per breath (VO2/BF). A reduced score indicates areas of inefficiency at higher intensities. You can improve your score through interval training at the intensities in which you demonstrate inefficiency.

Mechanical Efficiency

This metric represents the relationship between the work you produce (output) vs. the calories you use (input) or the efficiency ratio with which a person's body is transforming energy from nutrients (kcal/min) into work (watts).

Recovery Capacity

This metric represents your ability to recover from high intensity exercise. Your recovery score is based upon two variables:

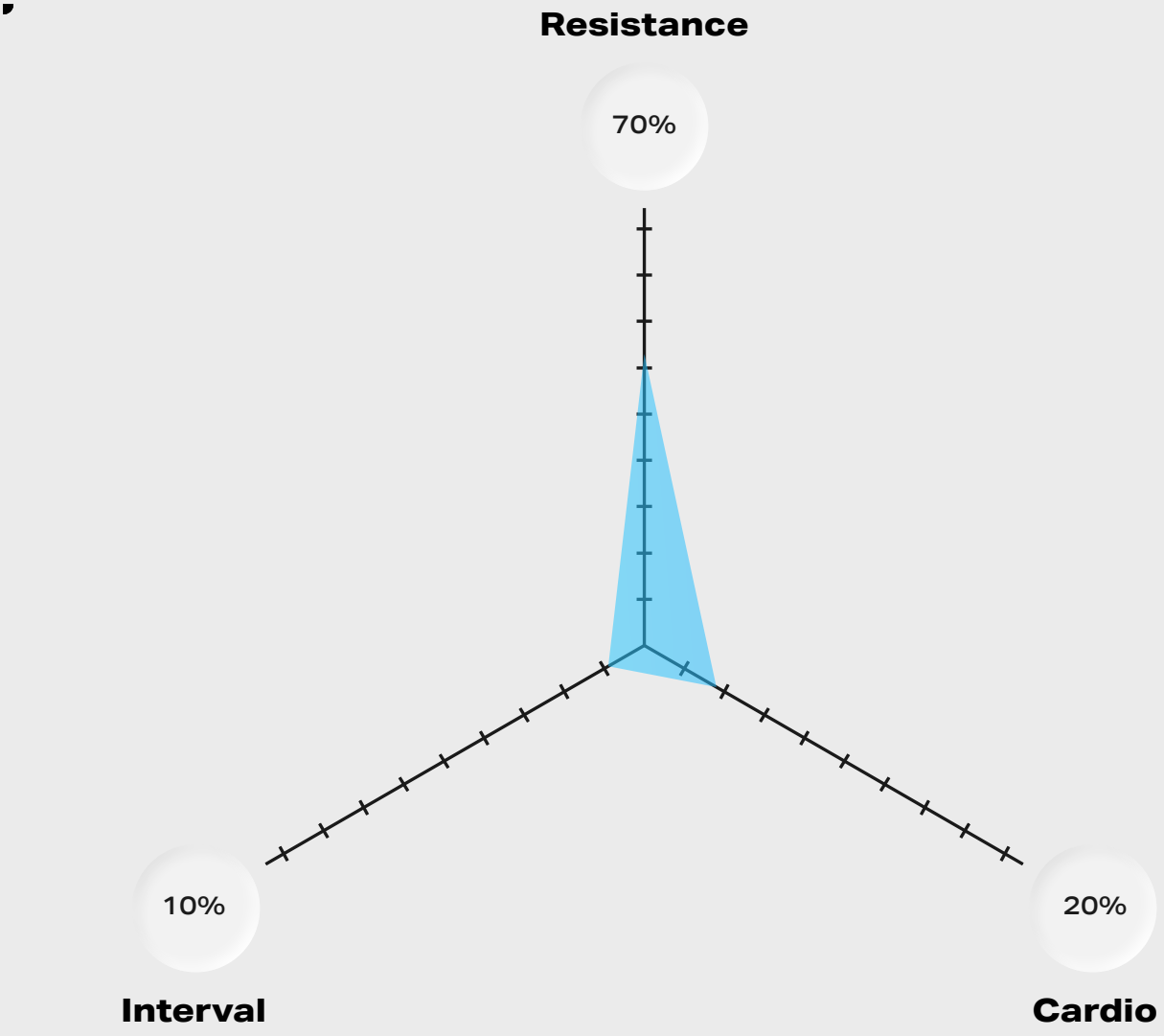
1. Cardiovascular recovery
    a. The percentage your heartrate (HR) drops in the first one minute of the inactive recovery phase of the exercise protocol in relation to your base HR (your average HR during warm up phase) and maximum HR (your highest HR during the test phase).
2. Metabolic recovery
    a. The percentage your VCO2 – the amount of CO2 you are breathing out - drops in the first two minutes of the inactive recovery phase of the exercise protocol in relation to your base VCO2 (your average VCO2 during warm up phase) and maximum VCO2 (your highest VCO2 during the test phase).

Your ability to recover is directly related to your level of cardiorespiratory and metabolic fitness. A nominal decrease in HR in the first one minute and VCO2 in the first two minutes will result in a low recovery score.

Cardio, interval training and respiratory training (if required) will improve this score.

Workout Programming

The workout recommendation mentioned below is based on your fitness goal of Increase Muscle Mass/Strength and your scores from the PNOÈ test.



Due to the respiratory limitation(s) identified in your Fitness Report, we recommend that you add respiratory training to your weekly training schedule. The type/intensity/frequency/duration of the respiratory training will be specific to your limitation(s) and provided by your trainer.

Building muscle mass requires proper strength training and fueling. On the other hand, low to medium intensity cardio training will allow you to maintain a high fat-burning capacity while preserving the muscle mass you build during your strength training days. Keep in mind that rest is as important as the work you put in at the gym. The majority of failed muscle building attempts are due to incorrect nutrition or insufficient rest.
Strength training should include weight-lifting and a variety of repetitions. Doing 3-5 repetitions at 80-90% of your 1 Rep MAX will help you build strength, whereas 8-12 repetitions at 50-60% of your 1 Rep MAX will help you increase muscle mass. In general you should avoid using weights in exercises with high number of repetitions and high movement velocity since they do not support muscle growth and usually lead to injuries.

Training Zones

Zone	HR Range	Wattage Range	Speed Range	RPE	Benefits	Training Type
Zone 5	182 - 197 BPM	310 - 400 W	-	10/10 Feels impossible to continue, completely out of breath, unable to talk	Improves VO2peak, aerobic capacity and muscle metabolism	Short high intensity intervals
Zone 4	167 - 182 BPM	250 - 310 W	-	8-9/10 Difficult to maintain exercise intensity, hard to speak more than a single word	Improves anaerobic capacity through improvements in buffering capacity	Medium high intensity intervals
Zone 3	147 - 167 BPM	190 - 250 W	-	6-7/10 On the verge of becoming uncomfortable, short of breath, can speak a sentence	Improves VO2 and cardiorespiratory health through increases in cardiac strength and improvements in O2 dependent storage and lactate shuttle	Long medium intensity intervals/tempo
Zone 2	118 - 147 BPM	160 - 190 W	-	4-5/10 Feels like you can exercise for long periods of time, able to talk and hold short conversations	Improves aerobic capacity and muscle metabolism through increased mitochondrial density and capillarization	Low intensity cardio training
Zone 1	98 - 118 BPM	130 - 160 W	-	2-3/10 Feels like you can maintain this intensity for hours, easy to breath and carry on a conversation	Improves fat burning and increases oxygen delivery to the muscles without significant utilization leading to recovery	Recovery

	Units	05/11/2022
Fat-Max	at BPM	98
Ventilatory Threshold 1 (VT1)	at BPM	99
Ventilatory Threshold 2 (VT2)	at BPM	177
VO2 Peak	ml / min / kg	56

Fat Max

The exercise intensity where a person burns the most amount of fax and the least amount of carbohydrate.

Ventilatory Threshold 1 (VT1)

The exercise intensity at which physical activity starts to be considered a workout.

Ventilatory Threshold 2 (VT2)

The exercise intensity at which the body transitions into Zone 5 where anaerobic metabolism becomes a large part of the body's energy generation.

VO2 Peak

The maximum oxygen consumption in milliliters per kilogram per minute (ml/kg/min) of body weight achieved during the test.

Fuel Usage

Heart Rate	VOL L/min	Kc/L O2	Kc/min	Calories / hour	% Fat	% Carbs
200	4613.29	0.01	23.93	1435.52	0.77	99.23
195	4640.26	0.01	23.8	1428.3	0.52	99.48
190	4395.72	0.01	22.25	1334.98	2.16	97.84
185	4105.6	0.01	20.83	1249.93	1.08	98.92
180	3661.42	0.01	18.4	1104.1	2.3	97.7
175	3560.25	0	17.76	1065.7	5.82	94.18
170	3185.91	0	15.9	954.26	5.65	94.35
165	3107.78	0	15.47	928.48	9.63	90.37
160	2966.7	0	14.79	887.57	10.4	89.6
155	2786.24	0	13.83	829.81	10.73	89.27
150	2789.06	0	13.82	828.95	13.94	86.06
145	2004.82	0	9.84	590.56	27.43	72.57
140	2408.73	0	11.81	708.55	30.34	69.66
135	2332.88	0	11.34	680.67	40.41	59.59
130	2468.01	0	12.02	720.98	39.47	60.53
125	2159.25	0	10.46	627.87	47.27	52.73
120	1939.63	0	9.42	565.38	42.98	57.02
115	1984.38	0	9.55	573.17	56.24	43.76
110	1748.8	0	8.4	504.13	60.79	39.21
105	1744.03	0	8.39	503.18	56.76	43.24
100	1634.39	0	7.79	467.23	72.63	27.37
95	1784.58	0	8.48	508.54	74.03	25.97
90	1512.52	0	7.11	426.71	90.29	9.71
85	819.35	0	3.79	227.24	97.28	2.72

Thanks for joining the PNOĒ community. We are here for you whenever you need us.

Your next assessment should be scheduled on: 08/11/2022

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