

The logo features a stylized blue 'B' composed of three horizontal bars of varying lengths, creating a sense of motion or a winged shape.

# THE BLUEPRINT

E X P E R I E N C E

**WE ARE  
WHAT WE  
REPEATEDLY  
DO.**

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

# Overview

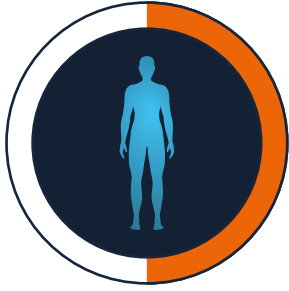


## Eric Bana

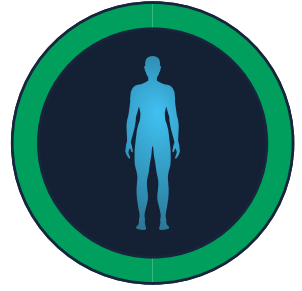
Your trainer, Eric Bana is a certified ACSM endurance and strength coach trainer and a certified metabolic efficiency expert. He holds a BSc in kinesiology from Rutgers University.

## Assessment

Mechanical Efficiency  
Cardiorespiratory Fitness  
Muscle Fiber Type  
Fat Burning Efficiency  
Breathing Efficiency  
Training Zones



**50%**  
METABOLIC  
EFFICIENCY



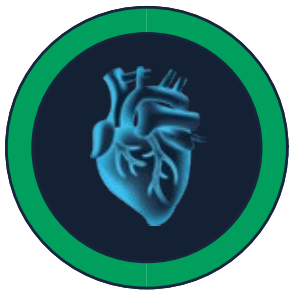
**100%**  
METABOLIC  
EFFICIENCY



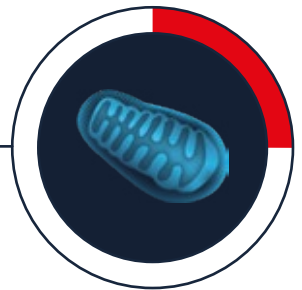
**75%**  
LUNG HEALTH



**50%**  
BREATHING  
& COGNITION



**100%**  
HEART HEALTH



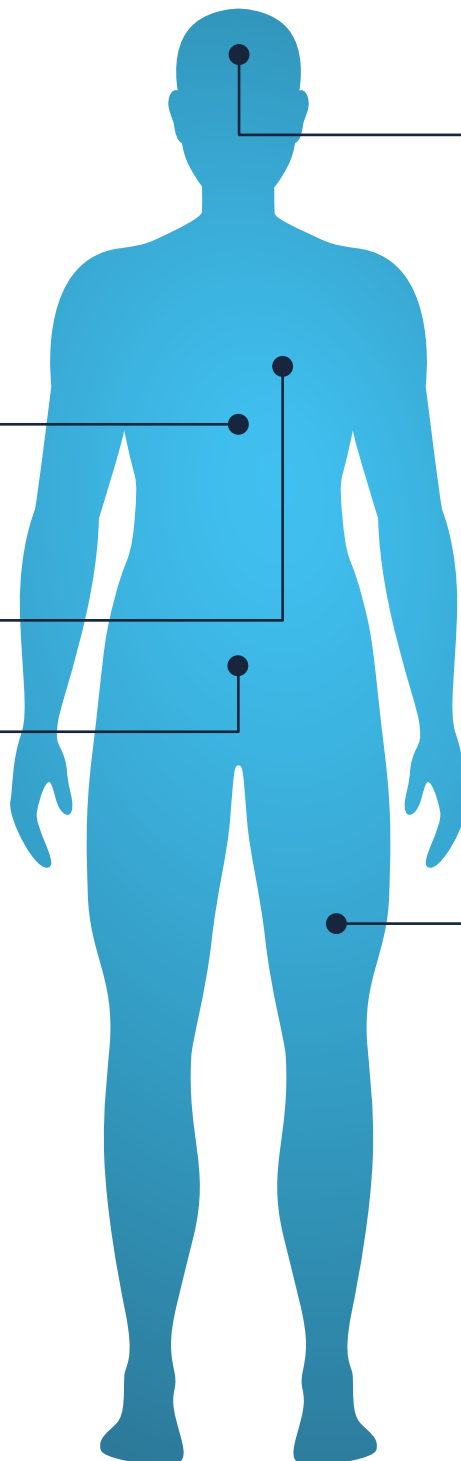
**25%**  
FAT BURNING  
EFFICIENCY

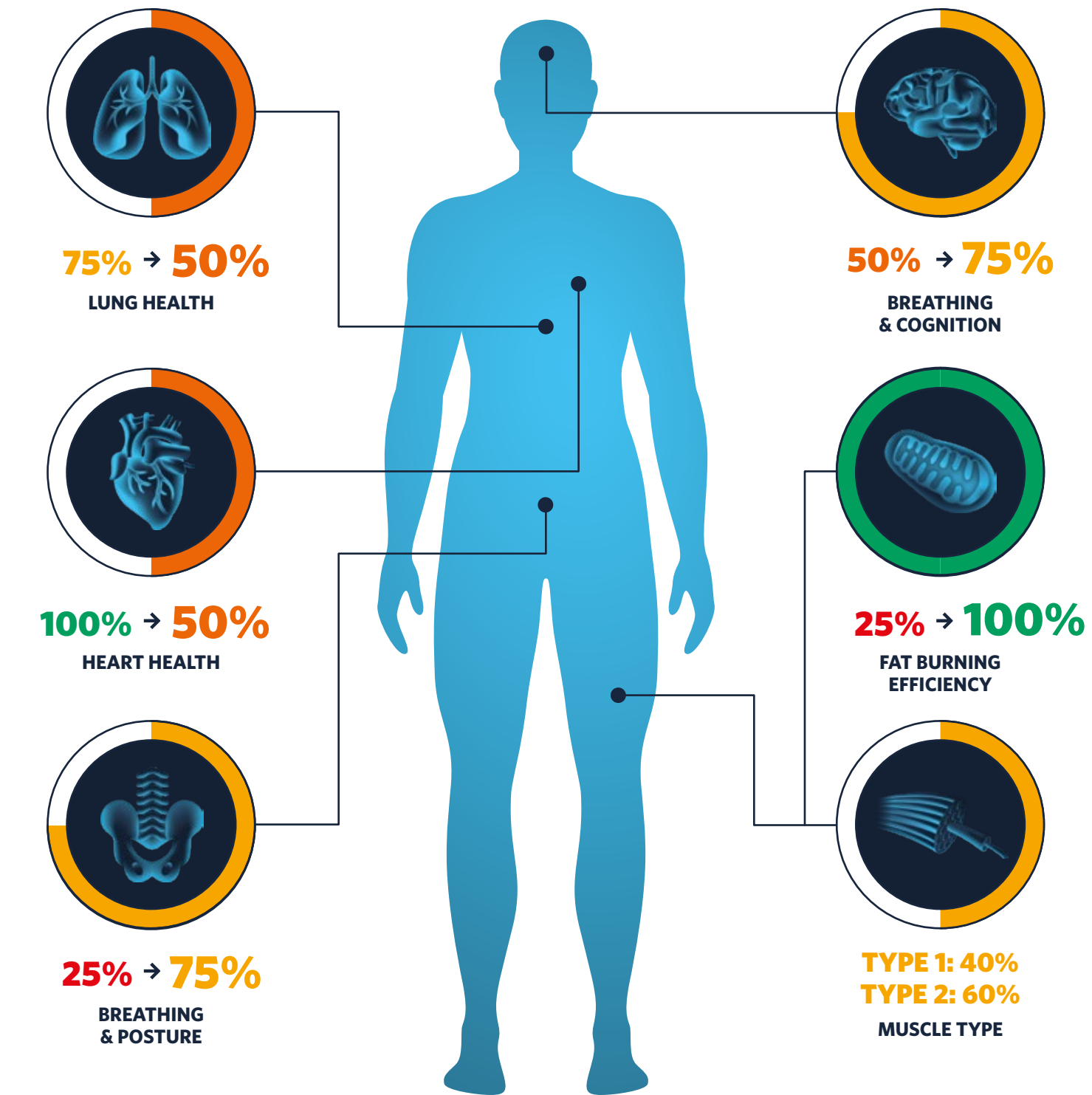
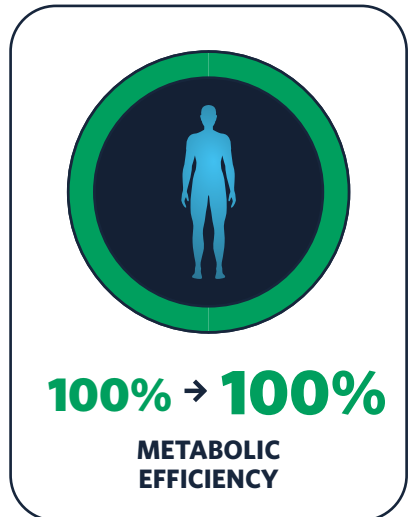
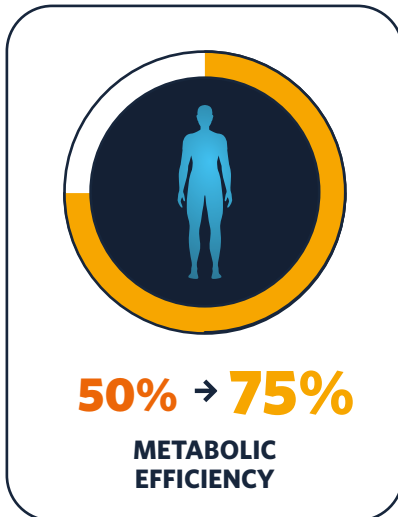
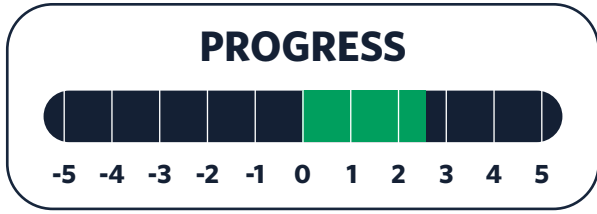


**25%**  
BREATHING  
& POSTURE



**TYPE 1: 40%**  
**TYPE 2: 60%**  
MUSCLE TYPE







## CARDIO FITNESS

This metric describes how well conditioned the heart is and if it poses a limitation to the ability to workout. This value of this metric is based upon your  $VO_{2peak1}$  as well as the trendline of the amount of oxygen your heart pumps into your body per heart beat ( $VO_2/HR$ ) as intensity increases. A low  $VO_{2peak}$  in combination with a flattening of  $VO_2/HR$  early on during the exercise will reduce the score of this metric. Sedentary lifestyle, lack of cardiovascular exercise or excessive weight training will lower this score. HIIT and Cardio training will improve it.

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## RESPIRATORY FITNESS

This metric describes how well conditioned the lungs are and if they pose a limitation to the ability to workout. This value of this metric is based upon your  $VO_{2peak1}$  as well as the trendline of the amount of oxygen your lungs pump into your body per breathing cycle ( $VO_2/BF$ ) as intensity increases. A low  $VO_{2peak}$  in combination with a flattening of  $VO_2/BF$  early on during the exercise will reduce the score of this metric. Sedentary lifestyle, lack of cardiovascular exercise or excessive weight training will lower this score. HIIT and Cardio training will improve it.

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## BREATHING & COGNITION

This is a measure of breathing efficiency and how breath is affecting the ability to think clearly and react rapidly.

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## RESPIRATION & MOBILITY

This metric describes the extent to which breathing affects strength, posture, and likelihood of developing mobility problems.

A high breathing frequency at the onset of exercise in combination with low  $CO_2$  during exhalation and low tidal volume<sup>2</sup> will reduce the score in these metrics. High levels of stress, a past traumatic event, or predisposition for panic attacks are the usual culprits. Breathing training during exercise and resting conditions are the most effective measure.

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## TYPE I & II MUSCLE COMPOSITION

This provides an estimate of the balance between Type I & II muscle fibers in the body. The value of this metric is based on mechanical efficiency<sup>3</sup> recorded during the initial stages of the protocol.

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## FAT BURNING EFFICIENCY

This provides data on the mitochondrias' ability to utilize oxygen and burn fat as a fuel source. Fat burning efficiency is highly correlated with cellular health. The value of this metric is based on the heart rate at which the person attains the crossover point<sup>4</sup> in relationship with the maximum and starting heart rate during the test. Sedentary lifestyle lack of cardiovascular exercise or excessive weight training will lower this score. Low to medium intensity cardio training in zones 2 and 3 will help improve it.



## METABOLIC EFFICIENCY

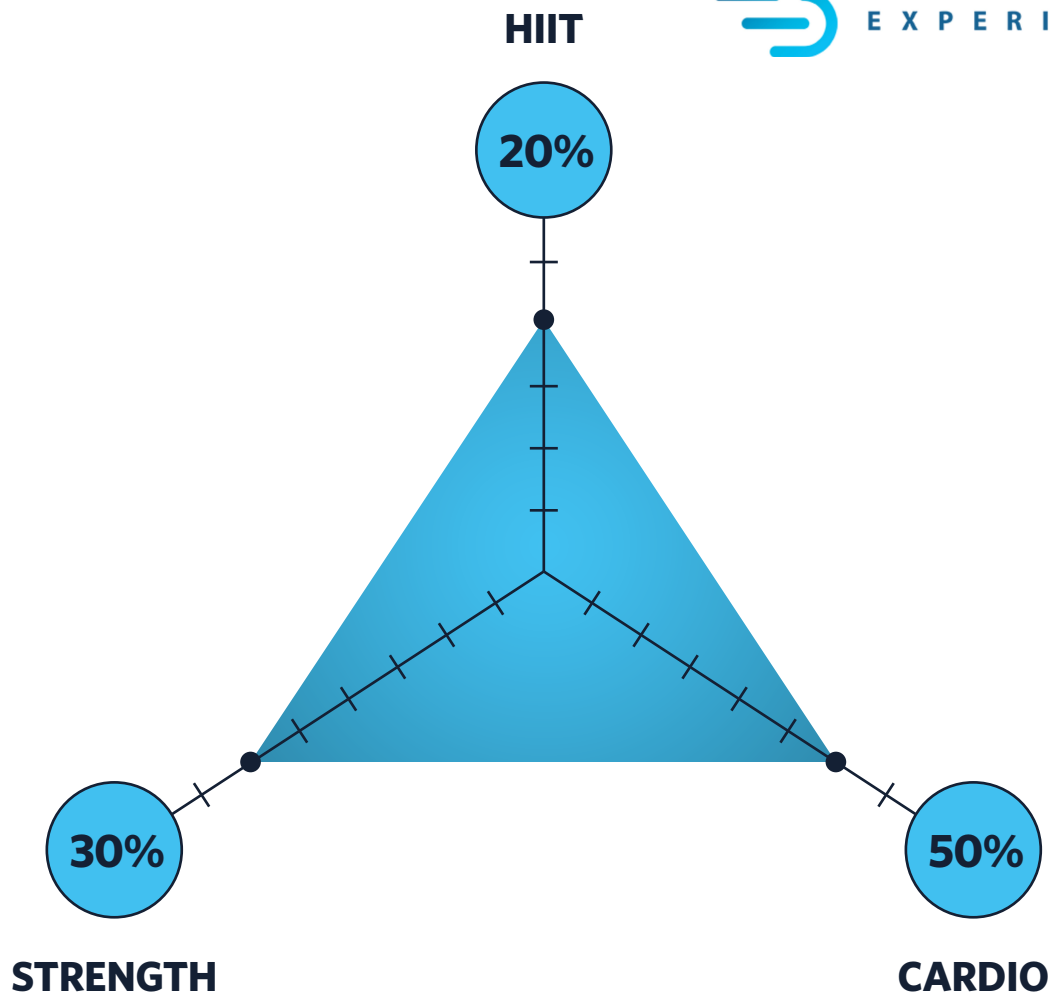
This is a gauge of caloric burn during movement and whether one is burning more or less calories than the average person with the same age, gender, and weight. This metric does not provide an indication of how high or low resting metabolic rate is. The value of this metric is based on mechanical efficiency<sup>3</sup> recorded 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 refeeding cycles will improve its scores.

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## AEROBIC HEALTH

This is a gauge of the ability to workout at high exercise intensities, which helps burn more calories. Aerobic health is also a strong indicator of overall health and likelihood of developing cardiovascular disease. The value of this metric is based on VO<sub>2</sub>peak<sup>1</sup>. Sedentary lifestyle, lack of cardiovascular exercise or excessive weight training will lower this score. HIIT and Cardio training will improve it.



DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7
Strength	Rest	Cardio	HIIT	Rest	Strength	HIIT

Making sure your body is burning a high enough number of calories on a daily basis is the single most important factor in weight loss. The majority of individuals who go on diets will fail even after the adoption of a healthy lifestyle because their metabolism will slow down making it harder to burn calories. Therefore, the focus of the program will be to ensure your metabolism is in “high” enough levels and will continue to do so even as you begin to cut calories. As the program evolves focus will shift towards cellular health and your ability to burn more fat in high exercise intensities.

The focus of your training should be on improving your mechanical efficiency through strength training while maintaining your cardio-respiratory fitness through HIIT training. After we achieve this we can focus on your fat burning efficiency through cardio training.



## TRAINING ZONES

<b>Building Anaerobic Capacity</b>	5 VERY HARD	< 2 min	155-178 bpm	<b>Benefits:</b> Develops muscular endurance to lactic acid and high intensity movements. <b>Feel like:</b> Almost intolerable muscular fatigue; very heavy and rapid breathing
<b>Building Anaerobic Capacity</b>	4 HARD	2-10 min	145-155 bpm	<b>Benefits:</b> Improves VO2max <b>Feel like:</b> Intense but still tolerable muscular fatigue; heavy and rapid breathing
<b>Lactate Shuttling</b>	3 MODERATE	10-40 min	128-145 bpm	<b>Benefits:</b> Improves fat burning efficiency and lactate shuttling <b>Feel like:</b> Moderate muscular fatigue and heavy breathing
<b>Metabolic Conditioning</b>	2 LIGHT	40-80 min	118-128 bpm	<b>Benefits:</b> Improves basic endurance and fat burning <b>Feel like:</b> Comfortable, easy breathing, low muscle load, light sweating
	1 VERY LIGHT	20-40 min	103-118 bpm	<b>Benefits:</b> Improves overall health and helps recovery <b>Feel like:</b> Very easy for breathing and muscles

	Units	09-26-2019	09-27-2019	09-28-2019
<b>VO2 peak</b>	ml / min / kg	42	40	45
<b>Enaerobic Threshold</b>	at bpm	150	145	149
<b>Ventilatory Threshold</b>	at bpm	119	126	100
<b>FAT-Max</b>	at bpm	123	120	126

### VO2peak

The maximum oxygen consumption in milliliters per minute per kilogram of body weight achieved during the test.

### Tidal Volume

The volume of air exchanged with the environment every breathing cycle.

### Mechanical efficiency

The efficiency ratio with which a person's body is transforming energy from nutrients (e.g. fats and carbohydrates) into movement.

### Anaerobic Threshold

The exercise intensity at which the body transitions

into zone 5 where anaerobic metabolism becomes a large part of the body's energy generation.

### Ventilatory Threshold

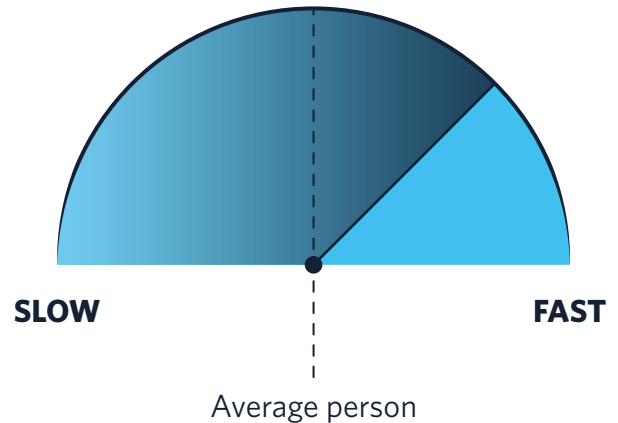
The exercise intensity at which physical activity starts to be considered a workout.

## NUTRITION PLAN

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Your metabolism is high but combining it with incorrect eating can slow it down. For example, eating fewer calories than you burn by following your activity tracker can cause your body to burn fewer calories making it harder to lose or maintain weight.

Also, eating the right amount of protein based on your metabolism and training will help you maintain muscle mass even during weight loss.



You burn 20% more calories than the average person of your weight, gender and age. This information can be used to fine tune your daily diet and "calibrate" your smartwatch.

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## BREATHING

12% of individuals suffer from hyperventilation. It reduces their ability to think, makes them tired and can cause series posture issues like lower back pain. For some it is also the cause of panic attacks.

Your breathing is problematic and can be a cause of cognition issues under conditions of high pressure as well as and posture problems. It is also a limiting factor in your physical performance. We recommend integrating breathing exercises in your daily routine and workout.

