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## THE HYBRID PLAYBOOK - IMPROVE YOUR RUN

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# IN THIS PLAYBOOK

## 03 WHAT MAKES A GOOD RUNNER?

The four qualities of successful athletes

## 04 IMPROVE YOUR AEROBIC THRESHOLD (AET)

Aerobic Base training

## 05 IMPROVE YOUR VO2MAX

Aerobic Base training  
VO2Max intervals

## 07 IMPROVE YOUR ANAEROBIC THRESHOLD (ANT)

Build your base  
Threshold Intervals

## 09 IMPROVE YOUR RUNNING ECONOMY





# HYBRID RUNNING

Discover the secrets to unlocking your full potential as a hybrid athlete with our comprehensive guide to improving your running performance.

As a hybrid athlete, you understand the importance of balancing strength and endurance training, but mastering the art of running efficiently and effectively can be the key to unlocking new levels of fitness and athletic prowess. In this eBook, we delve into the science, techniques, and strategies that will help you optimise your running performance while maintaining your strength gains and overall athleticism.

Whether you're a seasoned runner looking to up your game or a lifter seeking to conquer the world of endurance sports, this guide is designed to help you become the best version of yourself – a true hybrid athlete. So, lace up your trainers and let's embark on a journey to transform your running and elevate your performance to new heights!



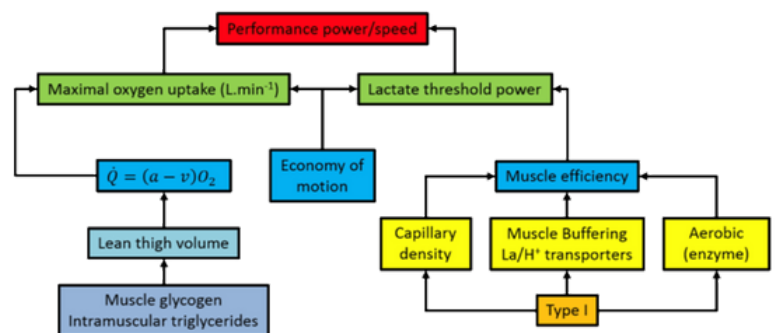


# WHAT MAKES A GOOD RUNNER?

What physical qualities make a good runner? Undoubtedly there are many factors that constitute being a better runner, however there are some key physiological requirements that we know you must aim to improve to develop as a successful athlete:

1. **Aerobic threshold (AeT)** - Establish your aerobic base
2. **VO2 Max** - How big is your engine?
3. **Anaerobic Threshold (AnT)** - How good is your engine?
4. **Running economy** - how efficient are you?

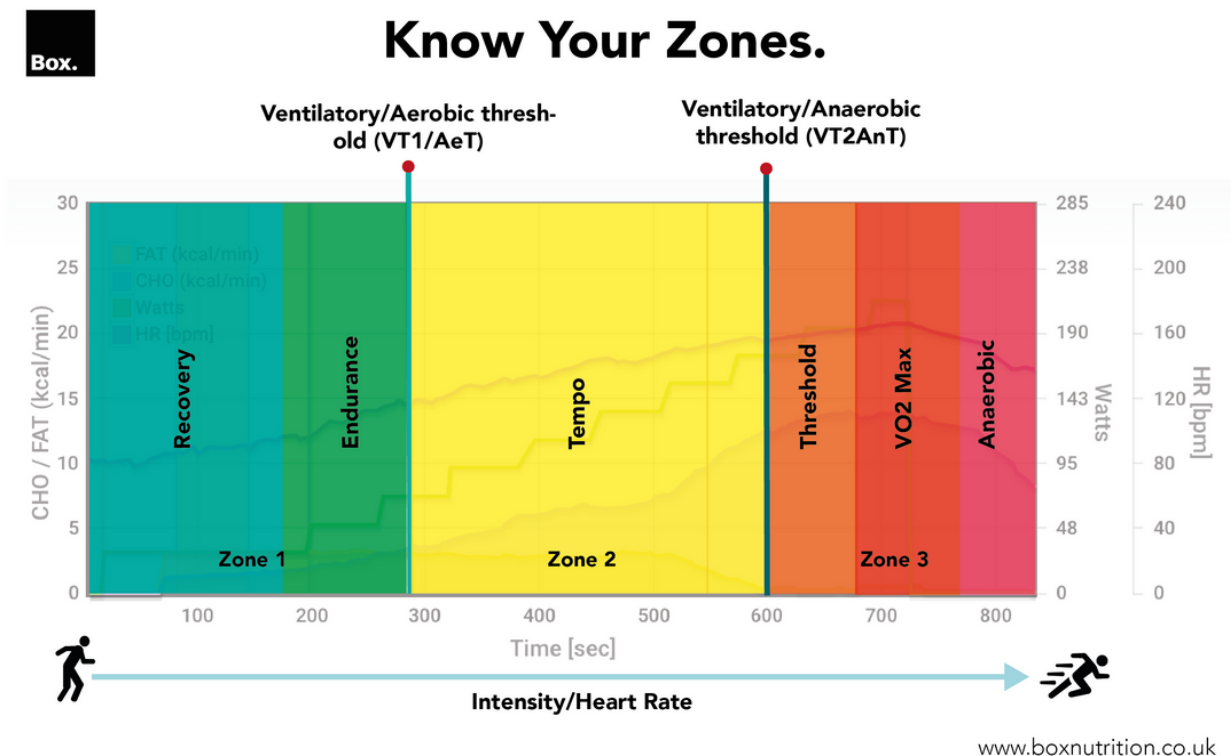
This is not an exhaustive list, but this practical guide takes you through how to develop each of these key metrics, including sessions to add to your plan.





# HEART RATE TRAINING

Heart rate training zones are a crucial component of any successful running programme for hybrid athletes. They help you tailor your workouts to your specific needs and goals, ensuring that you're training at the right intensity to optimise your performance, enhance your endurance, and prevent overtraining. In this section, we'll explain the five key heart rate training zones and discuss their benefits for hybrid athletes.



- 1. Zone 1: Recovery (50-60% of Maximum Heart Rate)** This is the lightest training zone, focusing on active recovery and building a solid aerobic base. Training in this zone helps improve your overall cardiovascular fitness, aids in muscle recovery, and strengthens your body's ability to utilise fat as a fuel source.
- 2. Zone 2: Aerobic (60-70% of Maximum Heart Rate)** Zone 2 training is all about endurance. In this zone, you'll develop your body's aerobic capacity, which is essential for long runs and sustained efforts. Training in this zone also enhances your body's ability to transport and utilise oxygen more efficiently.

1. **Zone 3: Tempo (70-80% of Maximum Heart Rate)** Tempo runs in Zone 3 help increase your lactate threshold, allowing you to maintain a faster pace for longer periods. Training in this zone is particularly beneficial for hybrid athletes as it bridges the gap between aerobic and anaerobic training, promoting overall fitness and performance improvements.
2. **Zone 4: Threshold (80-90% of Maximum Heart Rate)** Zone 4 training is characterised by high-intensity intervals and fast-paced runs. This zone focuses on improving your anaerobic capacity, allowing you to sustain high-intensity efforts for longer durations. It's particularly beneficial for hybrid athletes who need to build strength and power in addition to endurance.
3. **Zone 5: Max Effort (90-100% of Maximum Heart Rate)** This is the highest intensity training zone, targeting short bursts of maximal effort. Training in Zone 5 is focused on enhancing your speed and power, pushing your body's limits, and improving your overall running performance.



# FINDING YOUR ZONES

1. **VO2 Max Testing:** This test measures your maximum oxygen consumption during exercise, which is a key indicator of your aerobic fitness. By assessing your VO2 max, you can establish accurate heart rate training zones based on your current fitness level. For hybrid and HYROX athletes, this can help you balance your training to ensure you're maximising your endurance potential.
2. **Lactate Threshold Testing:** Lactate threshold refers to the point at which lactic acid begins to accumulate in your bloodstream faster than your body can clear it, which is associated with fatigue. By determining your lactate threshold, you can establish heart rate zones that allow you to train just below this threshold, which is particularly beneficial for endurance events like HYROX.
3. **220-Age Formula:** A more general method for estimating heart rate zones involves subtracting your age from 220 to determine your maximum heart rate. Then, you can calculate training zones based on percentages of this maximum heart rate. While this formula can provide a rough estimate of your heart rate zones, it may not be as accurate as personalised testing, especially for hybrid and HYROX athletes with varying fitness levels.



# TRAINING SESSIONS TO INCORPORATE

Now that you have a solid understanding of heart rate training zones and their importance in your training, it's time to put this knowledge into action. In the following sections, we'll delve into various running sessions specifically designed for hybrid athletes like you. By incorporating these workouts into your training program, you'll be able to effectively use your personalised heart rate zones to optimise your performance, enhance your endurance, and reach new heights in both your running and strength training.

So, let's get started and explore these targeted sessions that will help you become the best hybrid athlete you can be.





# IMPROVE YOUR BASE (AEROBIC THRESHOLD - AET)

1. Develop a strong aerobic base with low intensity training.

## AEROBIC BASE TRAINING

Improving your aerobic threshold should be the cornerstone for any endurance athlete.

Increasing the time (mileage) spent running is the best way to improve your AeT. This comprises of continuous training (no rest) for 40minutes + at your aerobic threshold (Zone 2).





# IMPROVE YOUR VO2MAX

1. Develop a strong and aerobic base through a with low intensity training (see above)
2. VO2Max interval training to develop the 'higher' gears of endurance. A mixture of long, short and hill repeats.
3. Altitude training can also help if this is a possibility.

## AEROBIC BASE TRAINING

A robust, aerobic base helps support a better VO2Max. This comprises of continuous training (no rest) for 40minutes around your aerobic threshold (Zone 2). Look to include these types of sessions between your hard day efforts. Don't make these sessions too difficult!

## VO2MAX INTERVALS



Intervals performed at your VO2Max pace or power. The goal of these sessions is to spend as much time as possible in your VO2Max zone. You should try and ensure you perform the last interval at the same intensity as your first interval. Going off too hard will mean you won't stay within the targeted intensity for as long. These can be split into longer or shorter intervals:

## *LONG INTERVAL EXAMPLES*

- 4 x 4mins at VO2Max with 2-4mins recovery at zone 1-2
- 3 x 6mins at VO2Max with 2-4mins recovery at zone 1-2
- 5 x 5mins at VO2Max with 2-4mins recovery at zone 1-2
- 6 x 3mins at VO2Max with 2-4mins recovery at zone 1-2
- 7 x 4-6mins at VO2Max with 2-4mins recovery at zone 1-2

## *LONG VO2MAX HILL REPEATS*

- 8-10x 90s hills at VO2Max intensity\*, 2min standing or easy pace recovery
- 6-8 x 2min hills at VO2Max intensity, 2-3mins standing or easy pace recovery
- 5-6 x 3min hills VO2Max intensity , 3-4mins standing or easy pace recovery
- 4 x 4-5min hills just below VO2Max intensity, 5-6min standing or easy pace recovery

\*VO2 max intensity - use heart rate, perceived exertion or power as they will be slower than flat repeats.

## *SHORT INTERVAL EXAMPLES*

- 10-12 x 60s at VO2Max intensity, 60s recovery at zone 1-2
- 2-3 x (10 x 30s at at VO2Max intensity, 30s easy), 3-5mins standing or easy pace recovery

## *SHORT VO2MAX HILL REPEATS*

- 0-16 x 60second hills, 90s jog recovery at zone 1-2
- 2-3 x (10 x 30second hills), 35-40s recovery at zone 1-2



# IMPROVE YOUR ANAEROBIC THRESHOLD (ANT)

1. Develop a strong and aerobic base through a with low intensity training.
2. Threshold, supra and over and under interval training to develop lactate clearance and withstanding it. This also helps increase your anaerobic threshold closer to your VO2 max.
3. Anaerobic intervals to improve muscular adaptation

## BUILD YOUR BASE

Low intensity training is one of the most important factors in developing your AnT. This comprises of continuous training (no rest) for 40minutes + at your aerobic threshold (Zone 2). Look to include these types of sessions between your hard day efforts. They shouldn't be too difficult.

## THRESHOLD INTERVALS

We can use 3 different types of workouts to help develop your AnT threshold. These include:

1. Threshold intervals
2. Supra-threshold intervals
3. Over-under threshold intervals

## THRESHOLD INTERVALS

Threshold interval training involves completing intervals at around your Anaerobic Threshold (AnT) intensity, split by a short recovery.

*EXAMPLE THRESHOLD WORKOUTS:*

- 2-3 x 15minutes at threshold intensity, 5minutes walk/jog recovery
- 2-3 x 10minutes at at threshold intensity, separated by 2-3mins walk/jog recovery
- 5-6 x 5mins at at threshold intensity, with 60-90s walk/jog recovery

## SUPRA-THRESHOLD INTERVALS

Supra-threshold intervals are performed just above your AnT.

*EXAMPLE SUPRA-THRESHOLD WORKOUTS:*

- 3 x 8mins at just above threshold intensity, 2-4mins zone 1-2 recovery
- 6-8 x 3mins for 30mins just above threshold intensity, 3-4mins zone 1-2 recovery
- 4 x 5-6mins, 2-3mins zone 2-3mins zone 1-2 recovery

## OVER-UNDER THRESHOLD TRAINING

Over-under threshold intervals includes session that work just above and just below your threshold. This helps two-fold by developing your ability to clear lactate, as well pushing up your AnT.

*EXAMPLE OVER-UNDER WORKOUTS:*

- 3x12mins (alternating between 3mins at just below AnT, 1min above AnT), 3-4min active recovery between sets
- 3x12mins (alternating between 2mins below AnT, 1min above AnT), 3-4min active recovery between sets
- 3x10mins (alternating between 60secs below AnT, 60secs above AnT), 3-4min active recovery between sets

## SPRINT INTERVAL TRAINING

Sprint interval training is performed above your VO<sub>2</sub>Max intensity (speed, heart rate and power) to help develop your fast twitch muscle fibres, ability to clear lactic acid and improve mitochondrial function. The ideal work:rest ration is 1:2 or more (example 30s on, 60s off).

*SPRINT INTERVAL TRAINING WORKOUTS:*

- 6 x 90s efforts at 112% VO<sub>2</sub> max, with 3 minutes passive recovery (standstill)
- 6-10 x 20-30 seconds of maximal effort followed by 2 minutes passive recovery

# IMPROVE YOUR RUNNING ECONOMY

Running Economy (RE) is the amount of energy you spend while running at a steady speed. Determining RE involves measuring oxygen consumption per unit time ( $VO_2$ ) and then dividing by your speed. Low RE values (higher running economy) denote a better running economy than a higher value.



Although a difficult metric to objectively measure, there are ways we can help with economy:

- Strength training - it improves musculo-tendon stiffness and neuromuscular efficiency, which are for better RE.
- Try Pilates and a specific core routine to strengthen your core muscles and improve postural alignment.
- Increase running cadence, i.e., increasing the number of steps per minute. For the recreational runner, it averages at 150-165 steps per minute. Consider increasing.
- Drive your elbows back with each step - it gives more energy to move forward.
- Increase mileage - higher mileage translates to better RE.
- Buy new shoes! In all seriousness, footwear can also help RE - you have probably seen the latest research on carbon plated trainers.



# BOX:PERFORM

Take your training to the next level.

Becoming a hybrid athlete requires a perfect balance of strength and endurance, with a keen focus on optimising your running performance. This eBook has provided you with valuable insights, practical strategies, and actionable tips to help you excel in your journey as a hybrid athlete. However, if you really want to take your running to the next level, check out **Box:Perform**, where we provide VO2Max and lactate testing, personalised guidance, comprehensive training programs, and ongoing support, backed by the latest in metabolic testing technology.

[Sign up now](#) and become part of a community that is dedicated to the pursuit of excellence in the world of hybrid athletics. The time to act is now – your future self will thank you for it!



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