The ‘Sweetspot’ - A Threshold Training How To

Following our discussion on Thursday, here is a quick breakdown of Threshold Training, the most effective way to build a bigger "aerobic engine" without the burnout of sprinting.

The Science (Every day’s a school day)

Your Lactate Threshold is the fastest pace you can sustain where your body is able to clear and use a molecule called lactate for fuel as quickly as you produce it.

Lactate itself isn't the enemy; it actually helps move energy byproducts out of the muscles to be burnt for fuel. When pushing hard the burning, heavy sensation you get in your arms and legs only happens when you go over this level and produce more acidic waste than the lactate can handle. Training this system directly by spending time at and around this ‘Threshold’ point improves your body's ability to be both more efficient in producing lactate and in using it once produced.

In Reality - How it feels

- Slower than Threshold: Easy/Steady. You could go for hours.
- Faster than Threshold: 5k/Sprint pace. Breathing is frantic; legs feel "acidic."
- **AT Threshold**: You are on the red line. It feels fast, strong, and controlled. You aren't gasping.

The threshold pace is a **"comfortably hard"** intensity where you should be able to say a few words, but it is not an all-out effort where you finish with your hands on your knees.

- In terms of pace, aim for a comfortably hard intensity. Though this varies; for many, it falls somewhere between 10-mile and Half Marathon pace.
- For perceived effort, aim for around a 6 or 7 out of 10. You should aim to start at around a 6 and finish at a 7 or just touching 8, though for the longest reps, you should try to stay at a 6 to ensure you do not push out of the zone.
- Using heart rate is often the most effective way to monitor this training, but it can get complicated fast and requires a watch, arm band, or chest strap (be cautious with wrist-based watches as they can be inaccurate). The best method to find your specific range of heart rates is the **Heart Rate Reserve (HRR) Calculator**. (https://runningversity.com/heart-rate-zone-calculator/)
- You want to aim for around **30 minutes of total time** spent at this intensity; while some advanced runners can push this further, it is generally not advised

as it is better to be slightly under your goal pace or heart rate range than over it.

- Keep your recoveries short, typically **60 seconds**, or what works out to around a 1:4 or 1:5 work-to-rest ratio.
- You should finish these workouts feeling like you have **plenty more in the tank**, and doing another rep or two wouldn't be an issue.

This type of training fits a very specific zone, but once you have the hang of it, it becomes an easy and simple tool for your training.

Session ideas

I prefer training by time—it works anywhere, and you can't "race" to finish sooner.

- 6 - 8 x 4 minutes (60s recovery)
- 10 x 3 minutes (60s recovery)
- 5 x 6 minutes (75 - 90s recovery)
- 4 x 8 minutes (90s recovery)
- 3 x 10 minutes (2 mins recovery)
- 20 x 90 seconds (30s recovery)

If you are new to this, start with the first three sessions until you are comfortable with the effort. Once you have the hang of it, aim for one shorter and one longer session each week. If you are also doing a track session, only do one of these per week. These can be alternated occasionally with hills to build strength.

This training is the engine room of our current Thursday coached session plan, acting as the link between your easy runs and other top-end speedwork to help you be a more resilient, efficient runner.