

Bike Field Test to Set Training Zones

This is a simple 30-minute test that you can do in order to determine your heart rate and/or power training zones for the bike when using an [ENDURANCEWORKS](#) training plan. This test should be performed on a relatively constant (mostly flat with minimal slowing) course or on a trainer.

Please note that if you are new to triathlon training, have been inactive for a prolonged period of time or are not yet able to maintain a sustained 30-minute effort, we recommend that you use Rate of Perceived Effort during the first 4–6 weeks of your training program prior to performing this test.



Test Preparation

1. Make sure that you are well rested from training before the test.
2. Any workouts the day before the test should be very light.
3. Don't eat or consume caffeine for three hours before the test and be well hydrated.
4. If you are performing the test on a trainer, be sure to use a fan so that you do not overheat.

Test Protocol

1. Prior to starting the test, warm up easy to moderate for at least 10 minutes. Include 6 x 15-30" pickups where you speed up to a high cadence.
2. For test, bike continuously for 30 minutes at a hard effort. The challenge will be pacing. You ideally want to pick an effort that you can maintain throughout the 30-minute duration.
3. Note your heart rate at 10 minutes, 20 minutes and at the end of the test. Take the average of the three data points.
4. If you are using a power meter, note your average power for the 30-minute test.
5. Once you are finished, warm down easy.

Calculate Training Zones Using a Heart Rate Monitor

The average heart rate that you observe during your test will be a good estimate of your Lactate Threshold Heart Rate (LTHR). Lactate threshold is the intensity above that which lactic acid begins to rapidly accumulate in your working muscles — your muscles will feel heavy with a burning sensation and your breathing becomes labored.

Calculate heart rate training zones using LTHR as follows:

	HEART RATE ZONES (BPM)	
ZONE	FROM:	TO:
Z1		< 81% * LTHR
Z2	81% * LTHR	89% * LTHR
Z3	90% * LTHR	93% * LTHR
Z4	94% * LTHR	100% * LTHR
Z5	>100% * LTHR	

For example: LTHR = 160

	HEART RATE ZONES (BPM)	
ZONE	FROM:	TO:
Z1		< 130
Z2	130	142
Z3	144	149
Z4	150	160
Z5	> 160	

Calculate Your Training Zones Using a Power Meter

The average power that you maintain for 30 minutes is equivalent to Functional Threshold Power (FTP). We can use FTP to calculate power zones.

Calculate training zones using FTP:

	POWER ZONES (WATTS)	
ZONE	FROM:	TO:
Z1		< 55% of FTP
Z2	56% * FTP	75% * FTP
Z3	76% * FTP	90% * FTP
Z4	91% * FTP	105% * FTP
Z5	> 105% * FTP	

For example: FTP = 240 Watts:

	POWER ZONES (WATTS)	
ZONE	FROM:	TO:
Z1		< 132
Z2	134	180
Z3	182	216
Z4	218	252
Z5	> 252	

Additional Notes

Be sure to cross-reference your training zones with Rate of Perceived Effort (RPE) to ensure that your training zones make sense:

ZONE	RPE (6-20 SCALE)	DESCRIPTION
Z1	10-12	Fairly light effort
Z2	12-14	Moderate effort
Z3	14-16	Moderately Hard
Z4	16-18	Hard
Z5	18-20	Very Hard

Do your training zones match the description of perceived effort for each zone?

If not, you may need to adjust your training zones up (or down) slightly to better match RPE. Keep in mind that setting training zones is not an exact science as training zones are meant to be a guideline. As long as you are in the ballpark intensity for your training zones, you will get the desired training effect.

WAIVER OF LIABILITY

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