

HOW TO

determine **YOUR LACTATE THRESHOLD**

By Lance Watson, presented by **triathlete**
MAGAZINE

Knowing your lactate threshold (LT) can help you determine your heart rate training zones. Your LT determines how long and how hard you can exert near maximum effort. There's a point when the body begins to produce lactate at rates that are too fast for it to metabolize—this is the LT. Understanding LT training is critical to improvement.

To determine your LT, do a field test on the bike and the run on separate days, when your legs feel rested. After a warm-up of 15 minutes (run) to 30 minutes (bike), do a 30-minute time trial on flat terrain where you can hold your hardest

uninterrupted effort for that duration (a bike trainer is ideal for the bike test and the track is a good option for the run).

Peace out your time trial as evenly as possible. To determine your LT heart rate, hit the lap button on your heart rate monitor 10 minutes into the time trial. The average heart rate for the final 20 minutes is your LT heart rate. The average pace for the final 20 minutes is your LT pace (if performed on flat surface in good weather conditions).

This chart will help you understand the various training zones based on your LT.

ZONE	% OF LACTATE THRESHOLD	BREATHING AND PERCEPTION
1	<80% of LT	Gentle rhythmic breathing. Pace is easy and relaxed. The intensity is a jog or very easy run or very easy bike spin.
2	80–87% of LT	Breathing rate and pace increase slightly. Many notice a change with slightly deeper breathing, although still comfortable. Running and cycling pace remains comfortable and conversation is possible.
3	88–93% of LT	Become aware of breathing a little harder, pace is moderate. A stronger cycling or running rhythm, this is “feel good” fast. It is slightly more difficult to hold conversation.
4	94–100% of LT	Starting to breathe hard, pace is fast and beginning to get uncomfortable, approaching all-out 30-minute bike or run pace. This pace should be challenging to maintain.
5	>100% of LT	Breathing deep and forceful, many notice a second significant change in breathing pattern. Pace is all-out sustainable for one to five minutes. Mental focus required, moderately uncomfortable and conversation undesirable.