

# Drilling Your Race Pace

As the weather warms up and your thoughts turn to racing fast this summer, it is time to think about how to achieve the best possible performance results. Triathlon coach Wayne Goldsmith has prepared a range of swim sets to help you achieve your target race pace this season.

Words: Wayne Goldsmith | Images: Delly Carr



**S**ummer is here and the time is right...to improve your triathlon swim leg. You've done a lot of hard work, completed your base training, slogged out the endurance sets and built a solid aerobic foundation. Now it's about racing.

## Target Race Pace

An important concept in training is target race pace (TRP).

In swim, bike and run, the fundamental aim of training is to prepare your body and mind to race well when you need to. This means learning to perform at a specific or 'target' speed by including race pace training in your swim, bike, run and brick sessions.

The final goal is to be able to swim, bike and run the target race distance (TRD) at TRP.

So, why is using TRP in training important? One of the most

common training mistakes is to use a past performance as the basis for training speeds to succeed in a future race. For example, if in your last race you finished the swim leg in 12 minutes and you'd like to swim faster in a future race, then using that speed – the 12 minute speed of your previous race – as the basis for your swim training will not help you to go faster next time. Focus on the future.

Think about it as if you were at school. You study topics and facts to help you pass a future exam. Studying topics and facts you learnt last year might be good for review but to keep improving you focus your study on new areas of learning.

Training is the same. Use TRP as the basis of your training sets to help you achieve a future peak performance.

## How to calculate TRP

It's pretty simple when you think about it. If you are aiming to

swim 500 metres at your next triathlon in a time of 10 minutes, that's an average speed of two minutes per 100 metres. In the pool, when you are designing training sets, use this time as the base for your race pace intervals, e.g. 50-metre pace would be one minute, 200-metre pace would be four minutes, 400-metre pace eight minutes and so on.

But...and this is a big but...you need to ask, are you a pacer or a racer?

And here's the really important thing to remember. While training to swim at TRP is the goal, it is also critical to prepare to race the swim leg of the triathlon, not just to train well in a pool.

The fundamental difference between a pool swimmer and a triathlete is that a pool swimmer needs to train to swim a specific time at a specific pace in a relatively constant, stable, competitive environment. A triathlete needs to learn how to hold a specific race pace efficiently while managing and overcoming an often unpredictable set of competitive challenges, such as collisions with other triathletes, waves, weather, swell, current and the like. This usually means starting the swim leg at a pace well above TRP and then, after a hundred metres or so, settling back into TRP and rhythm.

Or in other words, triathletes need to learn how to both pace and to race.

Here are 10 super swimming sets, based on the TRP concept, for you to use this summer to help you race and pace.

**SET 1: 1000 metres – 75 metres at TRP, 25 metres easy kick (repeat the 75/25 sequence 10 times without a rest).**

**Level of skill required:** 2nd-year triathletes and above.

**Distance:** 1000 metres.

**Time to complete:** Between 14 and 20 minutes.

**Intensity level:** Swim at TRP, kick at 6/10 pace.

**Improves:** Your kicking and your ability to change your kicking speed when needed.

**Critical performance elements:** Keep your feet soft, loose and relaxed. Don't point your toes when you kick! You kick much more effectively when your legs are relaxed and your feet are feeling 'loose'.

**Progression:** Try 150 swim at TRP then 50 kick five times through.

**SET 2: 24 x 50 metres at TRP on 1:30**

**Level of skill required:** First-year triathletes and above

**Distance:** 1200 metres.

**Time to complete:** 36 minutes.

**Improves:** your ability to hold TRP, stroke count and rhythm.

**Critical performance elements:** Aim to maintain TRP throughout the set. Focus on breathing and relaxation as you start to fatigue.

**Progression:** Try decreasing the rest, i.e. 24 x 50 at TRP on 1:25, then 24 x 50 at TRP on 1:20 etc.

**SET 3: Tri-4s: 6 x 400 metres on 7:00–8:00 minutes as 50 metres above TRP, 300 metres at TRP, 50 metres above TRP.**

**Level of skill required:** 2nd-year triathletes and above

**Distance:** 2400 metres

**Time to complete:** 42 minutes – 48 minutes

**Intensity level:** First 50 and last 50 of each 400 above TRP to simulate the start and finish of the swim leg of a triathlon, middle 300 metres at TRP pace.

**Improves:** Your ability to start and finish swim leg at a higher intensity than your average TRP.

**Critical performance elements:** It's vital to relax back into TRP and rhythm after the fast start when your heart rate is a little higher than it is at TRP.

**Progression:** Try extending the set to 7 x 400, then 8 x 400 and then decreasing the rest period, e.g. 7 x 400 on 7:50, 8 x 400 on 7:40 and so on.

**SET 4: unlimited 50s. Add 20 seconds to your TRP for 50 metres. Your goal is to do as many 50 metre repeats as you can on that time but holding a time of your TRP for 50 metres plus five seconds. For example, if TRP for 50 metres is 40 seconds, you swim as many 50-metre repeats as you can holding 45 seconds on a 60-second cycle.**

**Level of skill required:** First-year triathletes and above.

**Distance:** Up to you.

**Time to complete:** Up to you.

**Intensity level:** just slower than TRP.

**Improves:** Your ability to maintain TRP for extended periods.

**Critical performance elements:** Pacing is critical for this set to be effective. Aim to swim the exact time, i.e. TRP plus 5 seconds per 50.

**Progression:** Try decreasing the rest period, e.g. make the cycle time TRP plus 15 seconds but still aim to hold TRP plus 5 seconds.

**SET 5: 6 x 100 metres kick challenge set. Swim 100 metres in TRP. Note the time. Calculate 150 per cent of that time.**

**For example, if you swim 1:30 for 100 metres, 150 per cent of that time is 2:15. Your goal is to kick 6 x 100 metres on three minutes aiming to hit that target time, i.e. 150 per cent of your TRP 100 swim time.**

**Level of skill required:** 3rd-year triathletes and above.

**Distance:** 700 metres, i.e. 100 swim then 6 x 100 metres kick.

**Time to complete:** Varies.

**Improves:** Your kicking!

**Critical performance elements:** Keep your legs and feet long and loose and relaxed.

**Progression:** Try progressing the set to 3 x 200 kick at the same speed.

**SET 6: 8 x 50 metres on 2:00 minutes as Minimaxers. Swim 50 metres at your TRP. Count your strokes. Add the time you took to swim the 50 metres and the number of strokes you swam.**

**For example, 45 seconds plus 40 strokes = 85. Then swim 8 x 50 Minimaxer set (i.e. minimum strokes at maximum speed) aiming to go a little faster, take fewer strokes or both each 50 metre repeat.**

**Level of skill required:** 2nd-year triathletes and above.

**Distance:** 450 metres.



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**Time to complete:** 16 minutes.

**Intensity level:** TRP.

**Improves:** Your stroke efficiency at TRP.

**Critical performance elements:** Distance per stroke is determined by how well you maintain pressure on the water with your hands as you swim. Keep your hands 'soft' and feel the pressure of the water on your palm throughout your stroke.

**Progression:** Swim the set at TRP but aim to take fewer strokes and fewer breaths at that speed.

**SET 7: Double-ups. Swim 50 metres at your TRP. Have a 30-second rest then swim 100 metres in double that time. For example, if your TRP is 45 seconds per 50 metres, then swim 50 metres in 45 seconds, have 30 seconds rest, then swim 100 metres in 1:30, then take 30 seconds rest and double the distance again – i.e. 200 metres in three minutes and so on. Repeat this 'double-up' sequence until you can no longer swim your TRP for that distance.**

**Level of skill required:** 2nd-year triathletes and above.

**Distance:** Aim for at least one double-up – i.e. 50 metres to 100 metres, then progress your double up distance over time.

**Time to complete:** Varies.

**Intensity level:** TRP.

**Improves:** Your ability to maintain TRP for longer and longer distances.

**Critical performance elements:** Focus on breathing; relaxation and stroke count as you fatigue.

**Progression:** Keep doubling up, and doubling up, and doubling up.

**SET 8: 24 x 50 on 1:30 at TRP plus fins and progression.**

**Level of skill required:** First-year triathletes and above.

**Distance:** 1200 metres.

**Time to complete:** 36 minutes.

**Intensity level:** TRP (but you've got fins on).

**Improves:** Your ability to maintain TRP – you learn what TRP feels like.

**Critical performance elements:** Pacing is critical – aim to hit TRP precisely and exactly every 50.

**Progression:** Try swimming the first 20 of the 50s with fins, and then remove them for the final four. Then swim 16 x 50 with fins

and 8 x 50 without. Then 12 x 50 with fins and 12 x 50 without fins – each time aiming to hit TRP (with or without fins).

**SET 9: 12 x 50 'Pace to Race' 50s on 1:00. Swim 25 metres very, very slowly, i.e. around 40 per cent pace. Then at the 25-metre point, explode and race fast at TRP to the end of the pool.**

**Level of skill required:** First-year triathletes and above.

**Distance:** 600 metres.

**Time to complete:** 12 minutes.

**Intensity level:** Easy, relaxed, then TRP.

**Improves:** Your ability to accelerate to TRP when you need to. Far too many triathletes are 'one pacers' – they swim their slow work too fast and their fast work too slow.

**Critical performance elements:** Swim the first 25 metres very slowly so you can really feel the acceleration to TRP.

**Progression:** Believe it or not, the best progression is to swim the first 25 even slower than the second 25 even faster – i.e. to learn how to accelerate quickly to TRP when you really need to.

**SET 10: Distance plus TRP. Swim your TRD at TRP. Rest one minute and swim another 100 metres at TRP. Rest another minute and swim another 100 metres at TRP. Repeat the 100 swim at TRP, rest one minute sequence until you can no longer maintain TRP.**

**Level of skill required:** 3rd-year triathletes and above.

**Distance:** Varies.

**Time to complete:** Varies.

**Intensity level:** TRP.

**Improves:** Your physical ability to swim TRP over TRD. And this set also improves your confidence that you can swim TRD at TRP.

**Critical performance elements:** Don't overrace. Stick to TRP. Don't fall into the trap of going out too hard.

**Progression:** Try reducing the one minute between the 100s to 50 seconds, then 40 seconds and so on.

Have a super summer swimming season! 🏊



Wayne Goldsmith is a triathlon coach who has worked for both Triathlon Australia and Swimming Australia

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 0414 712 074