

Life in the Fast Lane

While triathletes have a preoccupation with endurance when it comes to swim training, Wayne Goldsmith makes a pretty convincing case for the need for speed.

Words: Wayne Goldsmith | Images: Thinkstock



There's a question that every triathlete asks. One that is as old as the sport itself. It's not about the mysteries of life, the universe and everything. It's not about finding peace through meditation or religious insight. It's far more important than that. It is: do endurance sport athletes, such as triathletes, need to do speed work?

And the answer to that very important question is an unequivocal yes!

So, why do triathletes need speed work?

Every triathlon training program is based predominantly on endurance training – on completing relatively long, steady, even-paced aerobic work at intensity levels between 65 and 80 per cent of maximum effort.

However, there comes a time when speed, and not just endurance, becomes the limiting factor in achieving personal performance goals.

For example, imagine you are trying to improve your one-kilometre swim time. Your current personal best time is 18 minutes. That's an average time of 1:48 per 100 metres.

If you wanted to improve your one-kilometre time to 17 minutes – which is an average speed of

of 1:42 per 100 metres, you would start to map out a training program that for the most part would involve increasing or changing your training load in some way. Most triathletes would naturally assume this training load would involve doing more – that is, increasing their training volume by adding an extra training session or two each week.

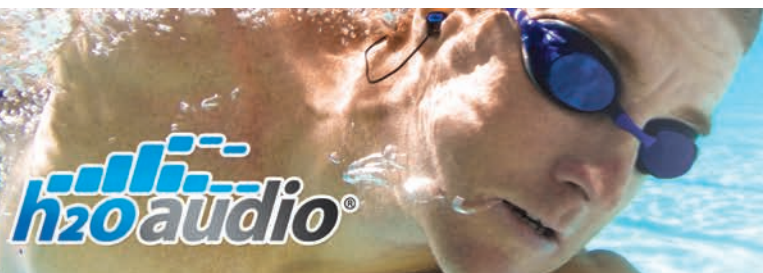
But there's another way of looking at it.

It is impossible to swim 1:42 per 100 metres for a kilometre if your best time for a single 100-metre swim is 1:42. Everything we know – or think we know about exercise physiology, muscle fatigue and biochemistry – says this is not possible.

However, if your best time over 100-metres was 1:30, then holding an average time of 1:42 per 100 metres for a full kilometre is possible with the right training.

And this is why speed work – as well as endurance training – is so important for every triathlete.

If you want to learn to swim 1:30 for a single 100 metre effort, then it is likely your 50-metre time would be around 40 seconds. And to swim 50 metres in around 40 seconds means you would need to be able to swim around 18 seconds for a single 25-metre



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Ten Speed Development Sets for Triathletes



1 25 and walk. Swim 25 metres as fast as you can. Climb out of the pool and walk back to the start. Repeat six-to-10 times.

2 25/25. Sprint 25 metres as fast as you can then immediately swim a relaxed, easy 25. Repeat six-to-10 times.

3 Eight strokes and out. Push off from the wall and swim 8 strokes of freestyle as fast as you can. Then relax and swim slowly and easily to the end of the pool.

4 Partner sprints. Swim as fast as you can for 10 strokes. As you are swimming, have a teammate walk along the side of the pool and mark the distance you get to after the 10 strokes with a water bottle or pull buoy. Then swap over and try and beat your partner's distance. Repeat 10 times – each time trying to go just a little further with your 10 strokes.

5 Speed builders. This set aims to help you develop the ability to sustain speed over longer and longer distances.

- Swim eight strokes at maximum speed (no breathing if you can). Easy swim to the end of the pool/one minute rest
- Swim 10 strokes at maximum speed. Easy swim to the end of the pool/one minute rest
- Swim 12 strokes at maximum speed. Easy swim to the end of the pool/one minute rest
- Swim 14 strokes at maximum speed. Easy swim to the end of the pool/one minute rest
- Swim 16 strokes at maximum speed. Easy swim to the end of the pool/200 easy swim
- Repeat the above two-to-three times.

6 Power sprints. Similar to Speed Builders, this set helps you to sustain speed over longer and longer distances using seconds rather than strokes as the variable.

- 5 x 10 seconds at maximum speed – aiming to go a little further each repeat. 20 seconds rest between each swim.
- 4 x 15 seconds at maximum speed – aiming to go a little further each repeat. 30 seconds rest between each swim.
- 3 x 20 seconds at maximum speed – aiming to go

a little further each repeat. 40 seconds rest between each swim.

- 2 x 25 seconds at maximum speed – aiming to go a little further each repeat with a one-minute rest between each swim.
- 1 x 30 seconds at maximum speed

7 Half on/half off/half on. Swim fast for the first half of the lap then relax and swim easily to the end of the pool. Rest for 30 seconds. Reverse it on the second lap. Start swimming slowly. When you reach half way swim fast to end of the pool. Rest for 30 seconds then repeat six-to-8 times.

8 Speed ladders. Swim 10 strokes fast, and then swim easily and slowly to the end of the pool. Rest 30 seconds. Swim 12 strokes fast, and then swim easily and slowly to the end of the pool. Rest for 30 seconds. Swim 16 strokes fast. Then swim easily and slowly to the end of the pool. Rest for 30 seconds. Then reverse the above, i.e. 16 strokes, 12 strokes, 10 strokes.

9 Cold swim. Before you start the actual session, stretch lightly for five minutes, making sure to loosen all the important swimming muscles in your back, shoulders, neck, arms, chest and legs. Then at the very start of the session, sprint 25 metres as fast as possible cold, i.e. without a pool warm-up. This is a great technique for developing speed because your body – particularly your nervous system – is capable of generating great speed when you are fresh (just be careful not to try it if you are carrying a muscle or tendon injury).

10 Minimax set. This is a great set because it combines both speed and DPS – distance per stroke. Swim 25 metres as fast as you can noting both the time and the number of strokes you take to swim the 25 metres. For example, if you swim 25 metres in 20 seconds and you take 15 strokes, your score is 35. Rest for one minute. Now repeat the 25-metre swim again measuring both time and stroke count. Aim to achieve a score of 34 – i.e. by swimming faster or taking one stroke less. Rest for one minute. Repeat until you can no longer reduce your score.

effort. And to swim 18 seconds for a single 25-metre effort you need to seriously consider including speed work in your training program.

Speed Reserve

The rationale behind the concept of having a 'speed reserve' is that, providing you are basing your overall training program on a strong, sound foundation of

endurance training, having a reserve of speed allows you to perform your endurance training at faster speeds.

In addition, there are numerous situations in a triathlon swim when having a little speed can be a great tactical and strategic advantage. For example:

- Sprinting at the start of a race to secure a good position in the field
- Sprinting from one pack to another



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- Sprinting away from competitors who are dragging along on your feet
- Sprinting into or out of a turning marker or buoy to gain a break over your competitors.


So speed is important for all triathletes...but where do you get it and how do you get faster?

The three golden rules of swimming speed development for triathlon:

1 Harder doesn't mean faster. Too many triathletes never learn to swim fast because they confuse 'hard' with 'fast'. Swimming fast has nothing to do with effort. In fact, the faster you want to swim, the more relaxed you have to be. Tension and hardness are the enemies of speed. So when you start doing speed training for swimming, stay relaxed, keep your hands soft and loose and focus on moving faster.

2 Technique technique technique. Swimming fast doesn't mean you can simply throw your arms and legs really quickly and hope for the best. Stay relaxed, stay loose, keep your hands soft, think about maintaining great technique and move faster.

3 Only fast is fast. When you want to improve your swimming speed, make sure that you swim at 100 per cent of your maximum speed over very short distances and with lots of rest.

So give speed a chance...you may be surprised at what a difference it makes. 



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



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