

HOW TO USE CSS TRAINING YOUR TRAINING ADVANTAGE

WELCOME



WHAT IS CSS?

A SMART APPROACH TO DISTANCE SWIMMING

CSS is Critical Swim Speed, a training approach popular amongst those at elite level down to athletes looking to increase their swim speed and train optimally over longer distances.

Like running, most swimmers train at one pace, or only really swim differently at the club training session once or twice a week. These sessions are usually geared around repetitions at some clock pace if you're lucky or just all out speed repetitions.

Our experience recently showed that when we asked athletes to pace a slow, medium and fast interval, only 100m, the results were either all within a couple of seconds of each other, or the slow was medium, the medium the fastest and the fastest was in the middle!

WHAT CSS ADDRESSES

INTELLIGENT PACING

BASED ON YOUR ABILITY

CSS allows you to train at just below your threshold effort or swim speed, this theoretically is the speed you could hold for an hour or so of continuous swimming.

Once you have this baseline knowledge you can train below that for endurance and efficiency, at it to improve your race times for set distances and above it for speedwork, all content in the knowledge that you are working with knowledge of your abilities, not on feel

Sessions feel comfortable to start with on the first few repetitions, then get progressively harder through the workout, the key is short recovery.

Once you've established a base fitness at a certain speed you can start to use the racestronger swim sessions to challenge you in other ways, and undertake a retest to reset your speed. In this case the sessions stay challenging and keep improving your speed.

WHAT YOU MEASURE YOU IMPROVE

INDIVIDUAL METRICS

All the swim plans [except the novice one] ask you to complete a Critical Swim Speed test in week one. Once the two times for the 200m and the 400m are entered onto the link on the test session in the plan you'll have your CSS speed per hundred which you simply input into your device for the appropriate distance of your pool.

FINIS TEMPO TRAINER PRO

YOUR LITTLE YELLOW FRIEND!



All swim pros use the pool clock; however, you've got to be familiar with it, and look at it regularly. On your own, the Finis Tempo Trainer Pro is simply by far and away the best way to pace yourself.

Once you've done the 200|400-time trial and got your time per 100 simply divide by the distance of the pool to get a target CSS time per length. This CSS time represents roughly your maximum endurance speed. You can go faster for sure, but the sessions are designed to allow you to build endurance at a challenging but manageable pace.

Set the right mode, one of three, and then just listen for the beeps, making sure you turn on the beep, before the beep, you're going to fast, after the beep, you're going to slow. As you progress the plan will introduce the concept of shorter rests and 'beating the beep' known as BB workouts.

An alternative, as offered by some swim watches like the Garmin 920XT amongst others, is to set the time alarm to vibrate on your wrist and use it in the same way as the Finis.

FINIS | SWIM WATCH BENEFITS?

SIMPLICITY OF USE

AUDIBLE CUES

You don't need to clock watch, and the Finis device fits on your temple or near your ear in your swim cap. It does come with a device for fitting it to your goggles but this is fiddly and not the best way to use it

If you need to reset the tempo, just press and hold the top button. Full instructions are included when you buy the device, and are also linked to the first session on all swim plans that use the CSS methodology.

If you have a Garmin, Suunto or Polar watch that you can use in the water to record your sessions then it will automatically update your swim sessions in Training Peaks every time the device uploads or synchs with its brand's portal. The **good** news is that Training Peaks connects seamlessly with these websites, allowing seamless transfer of data, like magic. You'll just need to link your devices, that takes a moment.

[Go here to link Garmin and Training Peaks](#)
[Go here to find out how to link to other brands](#)

TRAINING BY FEEL

THE 'OLD' WAY

Most professionals don't train on 'feel' how do you compare one day against another, or know if you are doing a consistent workout?

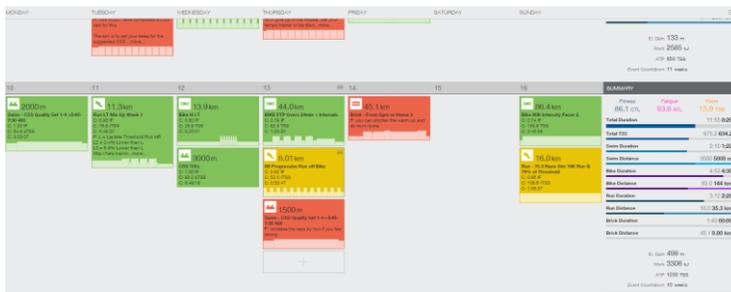
We've found that when training for a specific event, be it a 5k stand-alone

swim, or a swim leg in triathlon many athletes have no idea how to pace. Many pool based sessions on your own are simply too slow or not focused enough.

Having downloaded this programme means you are committed to improving your swim times. Improving technique is something else. We invite you to view and subscribe to our [YouTube Swim Channel](#) to learn technical aspects if you wish.

SESSION VIEW

The CSS workouts are placed into the appropriate day. If you complete them within 15% of the duration and or other settings they turn green; if you do them over or under that effort or time then they go amber; and if you miss a session it registers red.



concentrate on pure speed work, none of which is particularly scientific in supporting best performance in your chosen race or distance.

The point of CSS and Training Peaks - training scientifically is that you race at the optimum, not the maximum, for the race distance or sports goal you have set yourself, each type of challenge has its own best ways of training in terms of effort, all very different. So, relax, enjoy, realise that the first week is a bit trial and error but it gets better, **FAST!**

Can't make a session? Don't make it up the next day. Kids party in the way of something, move it, or do it early. Feeling a bit ill or tired and under the weather, then don't stress, missing one session or even a couple of days won't matter in the general scale of things. Learn to trust your judgement, something that comes with more exposure to the plan

FAQS

DON'T SWEAT THE SMALL STUFF!

We can't all be pro triathletes or swimmers!

This is your hobby, that you do for fun. Some may think it's more important than family, social life or work, it isn't! Your plan has been put together to get you to your goals fast using tried and proven methodology that works.

At best, you may complete 100% of the sessions as proscribed in each week. If you complete 70% of more you're still going to be better than the self-coached or accidental athletes against whom you compete.

This is not about others performance that you cannot affect, its all about you!



TERMS AND WHAT THEY MEAN

SWIM

TRAINING LANGUAGE

CSS Critical Swim Speed

A way of improving pacing on your swim, usually requiring a [Finis](#) Tempo Trainer AND the speed, in metres or yards per minute, or more usually, the distance taken to cover 100m |yds. in minutes and seconds, expressed as 1:40 for example. A good swimmer, who will normally be in the top 20% of most races probably swims at around a metre a second. The number of strokes taken per 25m pool will vary from 14 to 26 on average

FRONT CRAWL OR FREESTYLE [FS]

There are other strokes but front crawl is the fastest way to cover distance, and when you're efficient its less tiring than breast stroke many think

'OFF'

If you see an instruction stating a repeat, say 100m off 2 minutes, it means you swim 100m, if it takes

you 2 minutes you go immediately, if it takes you 90 seconds, then you get 30 seconds rest before you set 'off' again.

INTENSITY

How hard or at what level you work at, CSS puts you at around 8/10 toward the end of a session, so you can talk in short sentences although it will feel a lot easier at the start

DURATION

The length of time you are working an interval, or the duration of the training session, most sessions are distance based, some ask you to swim for a set time

PULL BOUY | PULL SHORTS

A flotation device or a pair of neoprene shorts that isolate or support the legs whilst swimming, allowing an athlete to focus on their upper body and arms during the freestyle or front crawl stroke [FS/FC]. Paddles are hand paddles, designed for strength work and should be used sparingly if you are a novice, and only secured by a middle finger if you are intermediate or advanced, fins are short flippers that you wear on your feet to practice kicking or move you quickly through the water. We don't generally use floats

HR

Heart rate, usually transmitted to a watch by a heart rate strap, allows very accurate and precise levels of effort relating to heart rate. It is not necessary for CSS swim training, unless you wish to record HR too.

REST DAYS

It is very important to most that they have either a rest day, or days of training that are less intense than others, and that every 3 or 4 weeks, there is a 'down' week that allows the body to recover ready for the next 'block' of training. The body fitness improves whilst it is resting, not working, and rest allows muscles, mitochondria and systems to recover and get stronger

Mins: Secs

These are durations for workouts, expressed usually in HH:MM: SS

PMC

If you use Premium Training Peaks, this is one of many different charts you can view that inform and show your fitness, progress and improving times over a training period. All you should know is that blue lines rise until event, [fitness] pink lines rise until event, then drop quickly [fatigue] and training form [yellow] should be between roughly -5 and 20. The charts can also be used to follow how well you're doing specifically for your swim training

BLOCK

What we call a specific time period of training, a block of time, or sessions

Any other questions, use the training peaks blog [here](#)

MY NOTES

400m swim time =

200m swim time=

CSS time = per 100m

CSS time per 50m =

CSS time per 25m =