Coaching Welcome Pack

Welcome

Congratulations on embarking on your triathlon journey with your bespoke training plan with me, Matt Luxton, and the Tamar Performance Centre. Having got this far, you probably don't lack motivation, but it is our job to apply structure and science to your training. We have looked at the individual athlete when creating these bespoke plans. One size doesn't fit all. Using the Training Peaks app allows you to have access to your triathlon, swimming, running, and cycling training plans which are based around the goals, ability and schedule we have discussed. On this, good communication is key to a good athlete coach partnership. I cannot mind read if you aren't feeling great, don't understand the session plan haven't uploaded your sessions to Training Peaks with comments in the post activity section. I hope you find the plan works well for you and the goals that you have set for your season, have fun and best of luck with your training and racing. Please avoid using Facebook messenger as a form of communication and use WhatsApp or email for streamlined communication.

At Tamar Performance Centre, we have developed our own terminology that may be different to terms you have come across before. Use this guide as a way to get to grips with how and why we put together the sessions and the terms and phrases we use.

This is not a guide for Training Peaks, you can get help on how to use that by clicking 'help' when on your training peaks app.

If you need any further clarification, please look into having a consultation with myself or one of the coaching team here.

The Tamar Performance Centre Team

Coaching Welcome Pack

Contents

1 Equipment you will need

Over the years I have always tried to make sure athletes didn't feel pressured into buying equipment they didn't need. That said there are some items that will help them with their training which I have listed below and some that are essential as we progress as a coaching team to help you better. I also believe that you can't manage what you don't measure. This also saves our clients/athlete's time. Below is a list of a few of these products we would thoroughly recommend as time savers or good training investments:

- Tempo Trainer Pro: This item basically beeps in your ear at set time intervals. You can change the intervals to the nearest 100th of a second. This is a fantastic product for swimming (especially CSS Pacing) and you can also use it on the track to ensure you are hitting even splits on the way round without looking at your watch. You can buy this here - https://amzn.to/3HwqUcx
- Heart Rate Monitor with GPS: We recommend that you buy a GPS watch with Heart Rate as it allows you to take your heart rate through all your bike and run session, gives us the actual distance travelled and your speeds and you can use it to measure paces on the run. What's more you can upload it straight onto training peaks so you do not need to write out

all the details from sessions which will save you time, and lets your coach see real-time data. You can spend hundreds of pounds (some of them are worth it in my opinion) on these, but there are some good ones for around £80-£120. At the time of writing this and for the whole time I have been coaching Garmin have never let me down, sure things go wrong with them.

- Swimming Fins and other specifics: These are very useful for doing drills. Regardless of your level of swimming, we would suggest using these to allow you to make the full benefit of the swimming drills. If you have done a swim analysis with us you may well have an understanding of which equipment you is most beneficial for you.
- Power meter – having access to a power meter for your bike sessions I would say is ideal. Not essential, but the clients that do have it, do better and can race more accurately and consistently. If you want more guidance on selecting a power meter/ smart trainer please do ask.
- Strength and Mobility – a crucial element of the work we do will be around injury prevention. Long gone are the days that triathletes, or single discipline athletes merely do that sport to get fit. Sure, it is a big part but if you want to stay healthy strength, active recovery and mobility are crucial parts of what we will do together. Here are a few bits you may want to consider investing in because we will be using them from the get go –

Lacrosse Ball - http://amzn.to/2uBvWjm
Resistance Bands - http://amzn.to/2w08f3p
5kg DB's - http://amzn.to/2uZgNdJ
Foam Roller - https://amzn.to/3fBiDH0

Our types of session

We have a series of sessions described by the title. A summary is described below. The idea is that by looking on your calendar view you can immediately see what type of session you have and how long it will take. You can then click for more details!

You may repeat a session or have a longer version of the session later on in your training phase. This is done to allow for adaption and progression in training. One of the biggest mistakes made is the idea that every session must be harder than the one before, that is not true. Slight variations within rest, effort or duration are expected but don't be surprised if you do similar sessions within a block of training.

The session titles are all explained below:

Coaching Welcome Pack

Swim – Endurance	This session is designed to build your aerobic endurance and although your effort may not be high, the time spent swimming will help improve your aerobic base.
Swim – Critical Swim Speed	Threshold Swimming. One of the most important swimming sessions of the week. Enjoyable in a sadistic kind of way.
Swim – Technique	These are recovery sessions but do not underestimate their importance. The skills or drills you find tricky are the ones where your stroke is weak, so work on them. Take your time over the drills and use fins where needed. Drills are done to improve technique, not catch the person in front up! If you are unsure of what drills you have been asked to do, then have a look at our list hereof all the different drills we recommend - http://www.mattluxtonhealthandfitness.com/swimming-drill-video-links/ or head to YouTube and type in the drill name, swim smooth and you will likely find exactly what you are looking for.
Swim – Speed	These are hard sessions designed to push you above your lactate threshold while developing speed and power. These are faster than CSS Pace. (This can be otherwise written as an example like this "CSS -5s" , which means 5s per 100m quicker than your CSS pace)
Swim – Open Water	Open water swimming sessions should only be completed in safe open water environments, and you should always swim with a mate. Use these sessions to become familiarised with the environment and practice open water swimming techniques such as sighting.
Cycling – Base	This is an easy recovery ride or aerobic ride used to promote active recovery or develop aerobic endurance. This is not a ride to set personal bests. Occasionally where appropriate we do these with less fuel than needed to help us improve the use of fat as a fuel. This will be indicated though, so otherwise ride with fuel and hydration tablets/powder unless told otherwise.
Cycling – Threshold	Threshold rides are supposed to be rides where you try and keep a constant power/effort level throughout the session. Our lactate testing on the bike will let you monitor this effort accurately.

Cycling – Intervals	Interval rides are designed to develop speed and power on the bike. Try and do them on a flatter open road but if you hit a hill, the effort doesn't change, the speed does!
Cycling – Hill Reps	My favourite, well you know what I mean. This is one of the best ways to become strong on the bike. Find a hill and go up and down it! If you are nervous about descending and cornering, then this session is also excellent for developing your confidence going downhill. Usually, it is your best effort up the hill but we do also take the opportunity to use this to deliberately "overgear" or work on different positions.
Cycling – Hills	A hilly ride. This is not specific repeats but usually has the same effect. The intensity should be moderate to high and would be used for race simulation.
Cycling – Turbo	There are two types of turbo sessions: aerobic and turbo. The aerobic ones are for poor weather conditions and the turbo ones are a replacement for bike intervals. You will learn to love them.
Run – Base	An easy or long run to act as a recovery or aerobic base builder. Again, there is no prize for being the fastest in this session, it is important that you run at your easy Intensity to get the benefits from this session.
Run – Fartlek	An interval session for running which is designed to help improve your recovery speed and work you hard at, or above your lactate threshold. These sessions also include running drills, if you are unsure of what drills to do, then have a look at these videos for a general run warm up - https://www.youtube.com/watch?v=mnJrDmKbymI / https://www.youtube.com/watch?v=kFcHC60Ihzg
Run – Track	Track sessions should be completed on a track, but you can substitute a track for a suitably flat area where you can complete the session at the right paces for the correct distances.
Run – Threshold	A Threshold run is designed to be hard and work you at your lactate threshold.

Run – Hill Reps	Hill reps are a very good way of developing strength in your running legs. Some of our sessions will incorporate exercises that help you develop explosive power in the legs, these sessions are hard but very effective.
Strength and Conditioning	This session is split into two types: Home based sessions that can be completed around your home with items substituted as weights (e.g., dumbbells, bands etc.) or Olympic weights which you should find in most gyms.
Active Recovery	You will see these days indicated. There are passive (e.g., massage, compression, cryotherapy, sauna's, contrast bathing) and active recovery (e.g. walking, easy rides, mobility and/or stretching) strategies. Here, little, and often is best – especially after every session but from time to time you will be given a complete stretching or mobility/ stability regime. This is especially true for athletes going into big competitions where we don't want you to have any niggles leading into the race. Think about first moving well, then moving more often as a good basis for all performance.
Brick (Off the bike)	A run straight after the bike at a particular intensity (refer to the session set for the correct intensity you need to do). Hit a rhythm and think about technique until it feels natural. Sometimes depending on the length of the session we will go hard off the bike and hit the remainder easy, other times it will be an easy run off the bike.
Brick – Session	Bike-Run session usually based on time. It is great to do these sessions with a turbo set up and have your trainers right beside you to put on and go as per session instructions.

2 How the session is broken down

If you click on a session in your calendar view, you will see more details on each session. There are five key bits of information for each session:

Title Your title explains what type of session you are doing.

Description I don't always go into loads of detail here, normally if there is something that is new or a little more complex, I will explain what the session actually is. This can often include these parts.

Purpose What the aim of the session is and what components of fitness we are trying to improve. Each session also provides information on how to carry out the session at the correct effort level or intensity.

For swimming your effort level is set by;

Critical Swim Speed (CSS) pace. To work out your CSS pace see this video from Paul Newsome of Swimsmooth. - https://www.youtube.com/watch?v=U51oZfl3i2E
Again sometimes this is self-explanatory but always feel free to ask if you aren't quite sure.

For running your effort level is set by;

- Heart rate calculated as a percentage of your lactate threshold heart rate which you will get when you take your average heart rate from your VDOT test.
- Pace taken from your results on the VDOT test visit this link and enter in the numbers https://runsmartproject.com/calculator/ to work out your VDOT number.
- Rate of perceived exertion (RPE) out of 10 with 10 being the maximum effort and 1 being the minimum.
- Race Pace is determined by the distance of your event, percentage of lactate threshold heart rate or rate of perceived exertion. Use the numbers from the vdot test you will have done.

For cycling your effort level is set by;

- Heart rate calculated as a percentage of your lactate threshold heart rate which you will get when you take your average heart rate from your lactate testing on the bike (20 min effort). This we sometimes do with power on zwift (short test) or with a 20 min max effort after having done a good and specific warm up.

- Rate of perceived exertion (RPE) out of 10 with 10 being the maximum effort and 1 being the minimum.

- Race Pace is determined by percentage of lactate threshold heart rate, power or rate of perceived exertion.

- *Warm Up* This explains the warmup routine for the session. Regularly for one type of session it is the same, so you only have to worry about changes in the main set. This is a warmup, there is no prize for winning this part of the session! If you have a tired body, then take you time to get into the warmup and then begin the main set ready to rock and roll.

- *Main Set* The quality part of the session. The key thing here is to hit your correct pacing and take the allowed rest: not anymore, not any less. Triathlon is an individual focus on YOUR session.

- *Cool Down* The cool down is critical. If you are doing a heavy session, then use the cool down to loosen off and make sure you stretch. If you have any sort of niggle follow R.I.C.E (rest, ice, compression, elevation) and seek the appropriate professional help. I am also a big fan of cold water, cryo therapy, compression, massage and other myofascial release techniques such as foam rollers, lacrosse balls and sticks. Please do ask if you want to know more about these.

3 Testing

At the beginning of each phase, you will be set some tests to determine your pacing and effort zones. This is in not directly indicative of a future race result. Obviously, we would love to see the outcomes improving on every test but even the best of us have a bad day in the office and sometimes the work in a previous block might mean that the test result doesn't show an improvement in that area. For example, we may have spent a period working on strength and be moving to a period of longer base work, where the aerobic engine is to be worked on. Take the training zones from that assessment and then work from them and build it up again. The information below explains the reasons for the tests, not the tests themselves. The key thing to note is not to get worried by them: they are just part of training.

Critical Swim Speed Test	The Critical Swim Speed Test (or CSS Test) is used to calculate your threshold swimming speed and therefore construct sessions based upon this speed. Many people will train above or below this speed but will never actually get the pacing right meaning they are wasting training time! https://www.liquidtri.com/css-swim-pace-calculator
Stroke Rate Test	The Stroke Rate Test (or SR Test) is used to calculate your most efficient stroke rate. Many people (especially for open water races) have a very low stroke rate worrying too much about their technique. This means that they lose out on the fluidity and rhythm that many of the best swimmers enjoy. By swimming at your most efficient stroke rate, you can really improve your swimming times as you will go faster at the same effort level. https://www.youtube.com/watch?v=Ihb4XP2Iet8
Lactate Threshold Test	This session is used to calculate your lactate threshold on the bike for both heart rate and power.
VDOT Running Test	This running test provides us with your velocity at VO2Max allowing us to calculate your different training zones according to this figure. This stops you from 'just running' and means that you are able to hit the desired paces, work specific energy systems and be confident that you aren't putting in junk miles. https://runsmartproject.com/calculator/

4 Pacing

4.1 Swim

Swim pacing revolves around your Critical Swim Speed (CSS) pace. As endurance swimmers within Triathlon your threshold swimming speed (your CSS) is the pace you want to improve, *not* your 50m's or your 100m's speeds. Although we include faster paced efforts in your sets they are to improve your swimming strength and power, not to improve those individual distances. Your CSS pace is the one we are trying to improve.

CSS critical swim speed	This is determined by your CSS test. It is an estimate of your 1500m time and is a threshold pace, it should feel easy to begin with and get hard as the session carries on.
Easy Intensity	This pace is dependent on how you feel. As a rule, it is a gentle pace with no set times. This is used for warm up, active recovery periods or cool downs.
Drill	This pace should be slow enough to get the drill right. Many of the swim drills should be performed with fins.
CSS +/- No.	This is your CSS pace per 100m plus or minus a certain number of seconds: CSS +5 seconds would be CSS (let's say 1:21/100m) + 5 seconds ie 1:26/100m.
CSS/25	is your CSS split for 25m used as a pace measure for the moment you push off the wall to the time it takes to push off/reach the other side. It is your CSS/100m time divided by four.
Max/Sprint:	Flat out, best effort. Don't give yourself an inch, if you can see at the finish, you haven't pushed hard enough! Horrible and disgusting!

4.2 Bike

Training on the bike is a real art. I recommend using power as a way of measuring how you are doing (but it is by no means the only way). As you get stronger, the power output will be greater for the same Heart Rate (i.e. the same effort). You will also notice that your Watts/Kg will improve. We strongly suggest that you as an athlete do not rely on speed as a measure of how good a ride was. As with all things technical, Heart Rate Monitors, Power Meters or other electronic sensors

can play up. After testing, you will know the figures you are able to hit for lactate threshold, so assuming that your devices didn't play up during the test, you should be able to tell if something is wrong in training. Be especially careful on the hills, all too often people will hit the hills and increase their effort without realising and on the flip side sometimes your legs will be tired and you will be unable to hold the power you want to hold. If the latter is the case, ease off and go on 'feel' rather than risk an injury or over training.

Easy Intensity	This is a 'how you feel' ride. Try and keep your cadence high (above 90 RPM) but in an easy gear.
Endurance Intensity	Aim to maintain a comfortable pace when cycling at this intensity. Try and keep your cadence high (above 90 RPM). It is designed to help improve aerobic endurance and pedalling efficiency.
Threshold Intensity	This is your threshold cycling wattage/heart rate as determined by your threshold test. It should always be maintained with a cadence of 90 RPM or greater and shouldn't feel like a really hard effort until the end. It should be harder than endurance intensity and sustainable for about an hour.
10 mile TT Intensity	This is your interval intensity. It's an effort level you could sustain for about 20 minutes. You should feel this in the legs.
Max Effort	As hard as you can go. Leave nothing in the tank, when your legs start to burn, then you try and go a little bit harder again. Simple and disgusting!

4.3 Run

All intensities are determined by your VDOT test. Your set of training intensities will correspond to your current levels of fitness and will change frequently. On flat terrain, intensity will equal your pace as determined by your VDOT, e.g. Threshold Intensity = Threshold Pace. Therefore, if you are going up a hill and told to hit your lactate threshold, then you should look to be maintaining the correct heart rate range or RPE (i.e. intensity) for lactate threshold, not your threshold pace as determined by the VDOT.

Easy Intensity	For recovery/long gentle runs.

Marathon Intensity	This is your estimated intensity for running a marathon and is useful for long distance training (even for Ironman – although your pace will be slower in an Ironman Marathon).
Threshold Intensity	This should be sustainable for about an hour to an hour and a half (maximum) it should be 'comfortably hard'.
Interval Intensity	This is a hard pace which you should do several intervals at. It is similar to a 5K race pace.
Repetition Intensity	This should almost be a sprint, (but not quite) you need to hold your running form for the time period running at this intensity.

5 Metrics

Training peaks allows you to enter various biomechanical metrics which can show you some trends quickly if you have a Premium account with Training Peaks. It also allows me and the coaching team at Tamar Performance Centre to analyse your data should you wish to have a consultation with us (you do not need the Premium account for us to assess this).

For example, if your resting heart rate is continually increasing and your motivation decreasing, then this is a good indication that you are slowly getting more and more tired. The more thorough you can be with your metrics and updating them, the better understanding you can get of how you are really feeling.

Weight	Your weight in Kg
Sleep Quality	How well you slept
Sleep Duration	Hours of sleep you had
Overall	How you feel in general?
Soreness	How sore/stiff are your muscles?
Motivation	How motivated do you feel about training today?
Pulse	Resting Heart Rate. Should be taken first thing in the morning.
Stress	How much external stress do you feel?
Fatigue	How tired do you feel?
Injury	How injured are you?

6 Other terminology

Many of the commonly misunderstood phrases can be found here:

@ (Time)	This is the time you should be coming in for every interval
Off (time)	This is the time for you to do the interval and have the recovery. I.e. you start the new interval every (time). For example, off of 2 mins means starting every interval on 2 minutes.
Threshold	This is a commonly confused term and we have tried to use specific intensities to explain what we mean when we say 'threshold'. It is considered a comfortably hard intensity. Physiologically when we mean threshold, we refer to the point at which your body is in equilibrium: able to process as much lactate as it produces at the fastest sustainable pace you can hold for an extended period of time. This takes time to really understand and feel. Be realistic – threshold should be an intensity that you can sustain for 1 hour.

7 Frequently Asked Questions

Missed sessions

If you miss one session, then forget about it, it happens.

If you miss a day of sessions, then forget about it.

If you miss a few days of training (not a holiday), then do the next day at about 60% off the main session/volume, then resume normal training.

If you miss up to a week of sessions then do the next week as 3 days at 50% of volume/main session, 2 days at 60% of volume/main session and one day as 75% of main session/volume.

If you miss more than a week, then start back to training by feel (DO NOT GO STRAIGHT BACK TO FULL TRAINING) or you could have a consultation with us to seek some advice.

Never try and make up for a missed session.

Not enough time to complete the session

Occasionally time will just not be on your side and you will be struggling to do the full session.

If this is the case, then it is better do to some of it than to do none of it. Reduce the main set.

Do not reduce the warm up or the cool down (You will need them to reduce the possibility of injury as chances are you will try and rush the session).

You can reduce the main set by taking out an interval, reducing the time for the interval, or reducing the distance of the interval (e.g. 75m instead of 100m in the pool).

Injuries

Most niggles and recurring injuries can be avoided by ensuring your muscles do not get too tight. If you have to have regular massages at the moment, I would highly recommend that you do. This can act as an MOT and it will help prevent anything going unnoticed.. If you stretch regularly and recovery properly between sessions, then you are unlikely to experience too many niggles.

What happens if I am continually tired?	Most people are brilliant at training but poor at recovering properly. The biggest difference between pros and amateurs is firstly their recovery and then their extra training, which they are able to do because they are recovered! If your Heart rate is +/- 10 beats from normal, do not train. Sometimes using training time as a nap time is a great way to recharge the batteries and get a full week of quality training in rather than drudging your way through every session
What if I want to do other 'B' races within my training plan.	No problem! You can substitute the weekend sessions for these and you can take Mondays as a rest day. Just be sensible with the amount of recovery you will need to take after your race- you may need more than a day if it was a particularly demanding race. Remember to be sensible in terms of the type of event you choose and see how it fits with the training you have been doing, and manage your expectations accordingly.