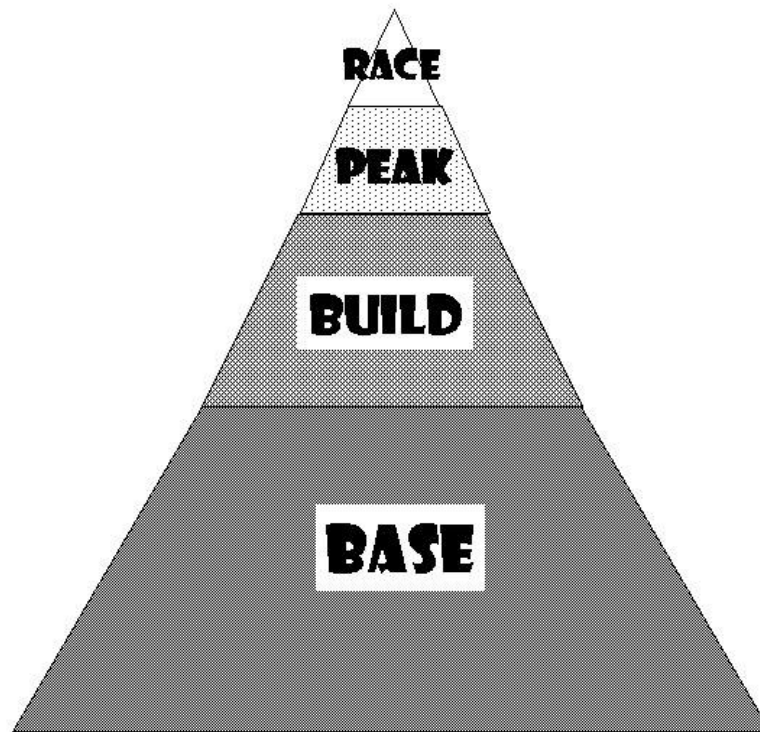


Since the 1970s, elite athletes have trained using ‘periodisation’ – splitting their training into defined periods, building intensity, and ‘peaking’ for races. Of course, what’s good enough for the elites normally filters its way down to us amateurs at some point and anyone looking to maximise their potential – and avoid injury – uses periodisation.

So, what is periodisation, then? It’s all pretty straight forward, really: we split the season into Preparation, Base, Build, Peak, Race, Recover, Transition. If we forget the less active periods and the periods of unstructured training for a moment, we can look at training relative training volume as a pyramid: a firm and solid base is needed and this takes the majority of your training time; this is followed by build, with more intensity and less volume; then peak with the highest intensity and the least volume. This diagram gives you an idea of how these periods relate.



Depending on whether you’re new to the whole thing, or whether you’ve had a good race season already, the periods can be adapted to your needs. The best way to work out when to start is to see when your first high priority race is the next year and then

work backwards. You don't need to stick rigidly to the time periods but try to be consistent and try to have definite changes between the periods themselves.

### Preparation

In the preparation period (4 to 12 weeks long), which normally starts after your end of season break from racing, we try and ease the body back into structured training after the breakthrough easy aerobic exercise, the beginning of weights programme, practicing technique in all three disciplines, and psychologically preparing ourselves for the coming year. Exercise can include cross-training (ski-ing, mountain biking, hiking, etc) to give a bit of variety.

### Base

The build phase is where we really lay the foundations of the coming year and I'll discuss this a bit later on. The base period typically lasts for about 2-3 months.

### Build

In the build phase, we build upon the fitness gained in the base period and include the higher intensity 'race simulation' sessions needed before the peak phase. This section may also include race specific workouts, like hill sessions on similar gradients to what you will experience in the race itself, open-water swim sessions, sighting drills, etc. The build phase is usually 1-2 months in length, depending on your level of fitness and length of race your training for.

### Peak

As it suggests, the peak phase brings you to a physiological peak for your major race and will include some of your most intense training sessions – and also your most important recovery periods. Peaking can be anywhere from a couple of weeks to a month in length. It's better to keep it shorter as you'll start to lose base fitness if the peak phase lasts too long.

### Taper

The taper period could only be a week to 2 weeks long and is aimed at maintaining the fitness you've built in the previous phases but recovering enough to be in a rested and psychologically sound condition for your major race. Peaking and subsequent tapering is an art and can mean the difference between meeting your goals and ruining your season. Too much peak and not enough taper and you'll race tired. Too much taper and you'll race sub-peak, having lost some of the fitness you've spent so long building.

### Recover

After you've raced in your high priority race, you'll need to rest your body. If you have another high priority race coming up, this recovery is essential before you start the build/peak/taper to your next race. Length of recovery depends on length of race

and whether you picked up any injuries. Obviously, an Ironman race needs more recovery than a sprint-distance race. Rushing recovery is a false economy.

### Transition

The transition period is usually to give your mind and body a break from training and racing at the end of the season and can last 4 to 8 weeks. This will include unstructured training and complete rest and is a good time to go over your season and look at what worked and what didn't, feeding this into your next years training plan.

There are 2 major ideas we can take from the above:

We cannot peak for too many races in one season. Pick the ones you really want to do well in and use the other races you want to do for training and measurement of progress.

You have to plan your season ahead! Think about the races you want to do and work backwards to find when you should be starting each period. There are some great books out there that help you plan sessions and timings, such as 'Going Long' by Gordo Byrn and Joe Friel, 'Swim Bike Run' by Glenn Town and Todd Kearney, 'The Guide to Triathlon Training' by Steve Trew, 'The Complete Guide to Triathlon' by Hermann Aschwer, or – best of all – get a good coach!

Depending on your experience, you may need to miss out the build period. For example, a novice may decide that the year should be spent working on mainly base fitness. The periodisation may then look like this: Prep, Base, Short Peak, Taper, Race, Recover, Base, Short Peak, Taper, Race, Recover, Transition, Prep. And the peak is spent practicing sighting drills, transitions, etc, but will be scaled down so you avoid injury. In the first couple of years of triathlon, most novices find that building base fitness is time better spent than incorporating build phases.

So, let's assume that we've done the Cosford Sprint race, possibly survived the Inter-services and decided that we want to make a go of triathlon properly, rather than just buying some goggles, oiling the bike, and pitching up on the day not knowing what condition you're in or whether you're going to finish at all! This issue, we'll look at base training as it's the most important bit for people starting out in triathlon.

### **BASE FITNESS**

If you want a successful, injury-free season, then this is the most important part of your training. Especially for people fairly new to triathlon, it's pointless launching into high-intensity training immediately, as your body isn't strong enough to maintain good form when tired, prevent injury, and recover properly between hard sessions. Patience is key as, once you have spent a couple of seasons forming a solid foundation of aerobic endurance fitness, you'll get the maximum benefit from the higher-intensity sessions in the build and peak phases. You may find that you don't even do a build phase in your first year of triathlon.

Base fitness is the progressive building of low intensity aerobic training (NOT anaerobic!), such as building up to running 90 minutes at, say, 65-70% effort for your weekly long run, or working up to 3 relatively-easy hours on the Sunday club bike ride. The emphasis is not on speed or power – they’ll come later – but on technique and endurance. Technique is crucial as, if you get good technique during the longer base endurance sessions, it will remain in your ‘muscle memory’ throughout the year and help prevent injury and increase speed and efficiency. Technique for running could include strides and high-knees; bike technique includes one-legged pedalling, fast cadence work, and trying to even out the power in your pedal stroke, making it smooth. Swimming is an anomaly: it is more important to practice technique, get it right, and improve your efficiency than it is to get thousand of metres in the pool at this stage. A coach is crucial for swimming at this stage, even if you don’t use one for the rest of the year – look to joining a local triathlon club coached swim session.

Flexibility is key – ensure that your muscles/ligaments/tendons are flexible ready for the season ahead. Flexibility and increased range of movement will help prevent injury and, again, improve efficiency.

A weights programme can be included at this stage too – the weights programme tapers out towards the build phase (if you have one) or about 2 months from the first races. Weights has been shown to help prevent injury (by strengthening tendons/ligaments, supporting muscle structures, etc) and is most beneficial for cycling: as most of your racing – and hence training- time is spent on the bike, this is a good thing to do. Speak to a qualified gym instructor or coach and explain what you want to achieve – multiple-muscle exercises (exercises using lots of muscles like bench presses), lots of leg and chest work, and core strength exercises (for the back and stomach) as the core is the pivot around which all swim/bike/run movements are made. Typical programmes will include squats/leg presses, lat pulldowns, knee extensions, hamstring curls, bent arm pull-down, calf raises, seated row, dips and tricep extensions. Swiss ball exercises, pilates and yoga are all good for flexibility and core strength. Like your whole training year, don’t just go the maximum weight you can lift in your first session! Build gradually and think about technique as well as the weight and number of reps. As muscle mass starts to reduce for people over the age of 30, a weights programme is an excellent way of staying young (!); doesn’t stop your hair turning grey, though. Weights are also extremely beneficial for women and can help strengthen bones and prevent – or reduce – the effects of osteoporosis.

So what are the fitness changes that we can see from good base training? For example, the heart will become stronger. This manifests itself in the following way: imagine your base run endurance training includes a weekly long run of 60 minutes in length at, say 70% heart rate (within the basic endurance training heart rate zone). As your training progresses and your heart – and the rest of your body - becomes stronger, you’ll find that you’ll actually be running faster for the same heart rate. In simple terms, by maintaining that 70% heart rate, you can run faster for the same heart rate than you could at the start of your training.

Remember the cliché: you can’t build a good house without a solid foundation. Give yourself the opportunity to reach your potential and don’t worry if you don’t start winning races in your first year! Look on triathlon as a long-term project to alter your lifestyle and be a happier, fitter, more toned and well-adjusted person. And, no – I’m

not paid by the BTA! The big changes don't happen overnight; they take time but the results will be worth it.

Next issue, we'll look at measuring key training values, like your heart rate training zones and lactate threshold heart rate, that will help you structure your training over the coming months. We'll also introduce 'rate of perceived exertion' (RPE), a more subjective measure of effort that should be used alongside heart rate in your training. Don't worry if this all sounds very scientific – it's common sense stuff and will allow you to make sure that you make the best of your training sessions and don't get exhausted from overtraining.