

Understanding Interval-Based Training

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A necessary component for any swim training regimen and more importantly, for developing your triathlon swim pace, is **Interval Based Training**. Unlike much of your bicycle and run training, which consists of workouts made up of longer, continuous distances, your swim training should be made up of primarily shorter, interval-based swim sets. For example, instead of swimming a straight 1000-yard freestyle (40 lengths in a 25 yard pool), you would swim a set of 20 x 50's freestyle (two length's of the pool freestyle, 20 times) on a particular timed interval.

Interval sets are designed to allow the swimmer time to rest and recover after each individual swim within a particular set.

This in turn, benefits in three ways:

1. The added rest and recover helps build endurance.
2. The added rest and recovery allows the swimmer to maintain proper stroke technique and form by remaining fresh throughout the set.
3. The added rest and recovery allows the swimmer to challenge himself/herself by increasing the effort during a set without becoming too fatigued.

**** And the combination of these is from where real improvement comes. ****

Yes, it is important to include long, continuous swims as part of your swim training. For one, it will help you develop a feel for the particular distance you may be swimming during your next triathlon. And it is an excellent way to assess your overall improvement. But real improvement will come from your Interval-based Training.

There are two basic methods used in designing an Interval based set:

1. Method 1: This type of set is based on a specific amount of time or rest between swims within a particular set. An example of this type of set would be 10 x 50's freestyle (yards) with 15 seconds rest between each 50. In other words, the individual is swimming a 50-yard freestyle 10 times resting 15 seconds between each swim. Regardless of how fast or slow you swim, you will get 15 seconds rest between each 50. This type of set provides an excellent introduction into Interval based training and is also a good set for focusing on heart rate training. (note: there is no hard and fast rule regarding rest time. You can use 20 seconds, 30 seconds or more between swims. However, if you remain aerobic in your swims, 15-20 seconds should be adequate)

2. Method 2: The second type of interval set is one that is designed around a specific timed limit or cap. In other words, you will have a fixed, specific interval or time to leave for each swim within that set. An example of such a set would be 10 x 50's freestyle (yards) on the "one minute" or :60 seconds. Specifically, you would swim a 50-yard freestyle within the time frame of one minute, ten times. If, for example, if you complete each 50-yd freestyle in 35 seconds, you earn 25 seconds rest before leaving again. This type of set forces you to use the clock (pace clock) to monitor your swim pace.

Four Types of Interval Sets – Below are 4 types of Interval based sets that I have used in my own swim training as well as coaching others. They are as follows: the Aerobic Interval Set, the Semi-quality Interval Set, the Challenge Set, and the Quality Set.

1. Aerobic Interval Set: As the title states, this type of set is designed specifically to work on your aerobic 50 or 100 yard/meter freestyle pace. And you can utilize either method of Interval training as described above.

A. Method 1: This type of set is ideal for applying Aerobic Heart Rate training to your swim pace. The emphasis is placed on developing and maintaining a feel for your aerobic pace relative to your heart rate, **NOT** a specific time on the clock. A typical set of this type would be 20 x 50's freestyle (yards) with 15 seconds rest between each 50. And an interval of 15 seconds rest (as described above) would provide enough time to find your heart rate without disrupting the swim set. For this particular set, you would check your rate after #1, #5, #10, #15 and #20. Remember, you are swimming comfortably or aerobically, **NOT** anaerobically. If your breathing becomes labored during your rest period, you are swimming too hard. Initially in your training, this may seem easy. However, this type of set will become more critical as you begin to build your distances and increase the speed of your pace.

B. Method 2: This type of set will have a fixed interval and therefore, allow you to keep up with your aerobic pace relative to your time on the pace clock. You shouldn't need more than about 15-20 seconds rest between swims if you remain at your pace so choose an interval accordingly. For example, say you want to do a set of 20 x 50's freestyle (yards) and your aerobic 50 yd freestyle pace is 42 seconds. Adding 15 seconds to that would make the interval 57 seconds. To make things easier, simply round the interval up to 1 minute. So, the set would be 20 x 50's on the minute (:60) holding your pace of 42 seconds for each 50 yard freestyle. Again, your breathing should not be labored.

2. A Semi-quality Interval Set: This type of set is designed to improve your aerobic pace by raising the interval (providing more rest) and slightly increasing the effort of each swim within a specific set. You will not push your heart rate to maximum levels; however, you will be increasing your effort just slightly. In a *Semi-quality Interval Set*, you will be using **Method 2** of interval training. For the *Aerobic Interval set* discussed in number 1 we added 15-20 seconds of rest to your aerobic 50-yard pace to create the interval. In that example, your pace was 42 seconds and your interval was 1 minute. In a *Semi-quality Interval set*, your goal is to try to improve upon that aerobic pace. Therefore, we want to add 30 seconds to your aerobic 50 yard/meter pace (or 100 yard/meter pace). If your pace was 42 seconds, this would make the interval closer to 1 minute 15 seconds or 1:15. Consequently, because of the additional rest, your goal would be to maintain a pace slightly faster than your aerobic pace, perhaps 40 seconds or a even bit faster. So a sample set would be 20 x 50's swim (yards) on the 1:15 holding a pace 2-5 seconds faster than your aerobic pace.

3. Challenge Set: The third type of swim set is what I refer to as a *Challenge set*. This is a much harder set and as the title states, is designed to challenge the swimmer. Basically, you want to add 5-10 seconds to your aerobic 50-yard pace, round to the nearest whole number, and make that your interval! For example, on a set is 10 x 50's freestyle (yards), if your aerobic 50 yard pace is 42 seconds, your Challenge Interval would be fifty seconds or :50. As I said, this will get difficult as the set progresses. You will not get as much rest between swims, perhaps, just enough to look at the pace clock, get your time, and catch a quick breath. The Challenge Set is another excellent way to improve your aerobic speed. You will be pushing your heart rate slightly but not to its maximum levels.

4. Quality Set: The last type of set that will prove beneficial to your swim training is a Quality Set. The basis behind the Quality Set is to simply build speed. It can be compared to a runner performing 200's on the track or a cyclist performing 3-5 minute bursts on the bicycle. In a quality swim set, you will swim the particular set as hard and fast as you can while getting plenty of rest for recovery. This means shorter sprint type swims on a big interval. A sample set would be 5 x 100's all-out on the 7 minutes with an easy 50 yard recovery swim between each 100. You would swim the first 100 hard, then immediately upon finishing, you would swim an easy 50 swim for active recovery, then rest at the wall for the remainder of the 7 minutes. As mentioned, this set is designed to build speed. You will feel your arms tighten. And it does work if you push yourself.

NOTE: One note when swimming Quality sets. Always take the first swim of the set and build your effort throughout the swim. Don't simply go hard from the beginning. Start out strong and build to a harder effort. Ideally, you would want to descend each swim within the set. In other words, perform each swim in that set faster than the previous swim. This will not only save your shoulders and reduce injury but also teach you the art of building speed and negative splitting.

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