Aerobic Development Guide for Parents

By John Leonard, Director American Swim Coaches Association

Otherwise known as basic aerobic fitness....how is it developed in Swimming? We use a training formula for this quality that is time tested and proven over the past 60-70 years. What we want to do, as one quality of athletic development, is to make young athletes "more fit" than they were prior to training.

Another simple definition is the ability to do more work, faster and for longer than previously.

First, we increase the distance swum.....long, slow, easy swimming. Some of our swimmers are not able to complete a full easy 1000 of free and "hold steady the splits" (intermediate 100 times). Others can handle a 500 now and some, alas, cannot yet handle a 200 capably. That's the first step. (Truly fit swimmer can handle a straight 3000 free with steady splits.)

Second, we swim some shorter repeats and try to reproduce slightly faster times than on the long, slow swim. So perhaps we swim 10 x 100 free on 1:40 (1 minute and 40 seconds). Some get 30 seconds rest, some get 10. The faster you swim, the more rest you get. So, step two, is being able to complete a modest distance set (1000 total yards) broken by 100's on a set interval.

Step three - is to complete the required distance in less and less rest. 1:40 intervals become 1:35, then 1:30, then 1:25, then 1:20, then perhaps 1:15 or less for advanced age group swimmers.

The efficiency of all this is measured by heart rate. Once the athlete can work hard enough to elevate their heart rate into the 180-210 (per minute) range, then we measure the decrease in heart rate over weeks/months as they swim at the same speed, over the same distance. OR, swim faster, on the same rest and the same elevated heart rate. but our goal, first of all is to measure the constant intensity of our swimming (our speed) and seek to do it "easier" (fewer heart beats per minute.)

A look at any practice will reveal that there is a WIDE range of aerobic ability. By necessity, athletes will "fail" to hold an entire set....failure is good! -- it means that they are working to their maximum capacity. If they can "make" the first 4 of a set of ten, their next goal is just to make 5.....then 6, then 7. etc. ***You can't make progress without pushing to failure! The trick is to learn to work hard enough to "fail" further down the road of hard work, each time.***

In a nutshell, that's Aerobic development. Volume, then constant speed at constant interval, then decreased interval and increased speed.