Science-Based
Performance Improvement Training

vVO$_2$max Measurement

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The drill is simple. Following your warmup, run a couple of 400meter laps on a track, with a 60sec rest between, at about 80%. Rest for 60sec. Then run as far and fast as possible in **exactly** 6:00 minutes. Record the distance run in the 6 minutes; this should be done to within one meter. The result, with a little math, is close to your vVO$_2$max in meters/sec. The most precise method requires measuring it under laboratory conditions on a treadmill; but, the method described here is close enough for training and race time prediction purposes.

It will take most folks a couple of tries to get the hang of it. So, you might want to do it twice the first time and then maybe once the second week. From then on, every two weeks would be great. Incidentally, this is a great lactate utilization drill itself.

Most tracks are usually 400 meters, that's close to 1/4 mile. Nearly everyone involved in the program will run between about 3½ and 4½ laps. If the track is marked for racing and football, you can estimate your walking stride length using the markings. Then use walking paces for adding or subtracting from the lap marks.

The math is simple: Distance in meters ÷ 6minutes x 60 seconds/minute; yielding: velocity @ VO$_2$max = Distance in meters ÷ 360sec

Assume you ran exactly 3 ½ laps plus 40m [3x400+200+40], your distance would be 1440 meters. Your vVO$_2$max would be: 1440m VO$_2$max 360sec = 4m/sec

Your vVO$_2$max is your running speed at your VO$_2$max, also known as your "VO$_2$max running threshold." Your interval training speeds should be based on this speed for the maximum benefits.

 A few useful values are your resultant 200m 400m, 800m, and 1600m [1 mile] times

Using our example just above:

½ lap: 200m ÷ 4m/sec = 50sec

1 lap: 400m ÷ 4m/sec = 100sec [1:40]

2 laps: 800m ÷ 4m/sec = 200sec [3:20]

4 laps: 1600m ÷ 4m/sec = 400sec [6:40]

What you'll be looking for is an increase in distance run in 6:00 minutes as your vVO$_2$max improves.