

### **Training paces (revisited)**

Most of the training sessions that we do are based around a set of five race speeds - sprint (95-100% effort), 800m, 1500m, 3000m and 5000/10000m. Other race speeds (1/2 marathon, marathon) are used for “recovery” or change of pace sessions. There is a reason for aiming at specific race speeds. One of the outcomes of a good training program is the development of pace judgement, the ability to know within a second or so per lap (on a track) or per km (on the road) how fast you are running. This knowledge enables you to set a pace that allows you to achieve your best time for a particular race distance - if this is your goal. Sometimes the goal may just be to win a race rather than running a new best time. Training at set paces develops the ability to “lock onto” a desired pace and using that ability in a race reduces the possibility that you will fade as a race progresses. Dash and die is not a good look!

Some training sessions are designed to improve or maintain maximum sprint speed. This is important even for endurance runners for several reasons. Maximum sprint demand recruits muscle fibres that may otherwise rarely be recruited, maintaining fibre fitness and the incorporation of these fibres into a neuromuscular response pattern. The saying, “use it or lose it”, is true. When you are close to maximum speed the only way to go faster is to increase stride rate. Sprint speed forces the brain to recruit muscle groups in a well coordinated fashion at a high rate. This trains an efficient neuromuscular pattern that carries over to other running speeds, increasing running economy. In addition, all other running speeds are a fraction of your maximum speed so it pays to keep that speed as high as possible. The ability to out-sprint a competitor at the end of a race may be the difference between winning or not. For sprint speed training, aim for high leg speed and a long stride (without over-striding), running more on the forefoot and minimising the time each foot is on the ground. Try to maintain a smooth, flowing style that feels stable and minimises foot-ground noise. Over time, look at the wear pattern on the soles of your shoes. If all the wear is on the outside of the heel and little on the forefoot and toes you aren't using a sprinting technique to help you go as fast as possible.

You can use one race time to predict your likely time for other distances and hence the pace you should train at for these distances. A general rule is that, as the race distance is doubled, the time taken per 400m increases by 4 seconds. If, for example, your 1500m time is 5:30 (88 seconds per 400m) then your likely 3000m time will be 92 seconds per 400m, with a 3000m race time of 11:30. Once you have the times for 400m for a given pace that is within your ability, you can use this to set times for various training distances at this pace. Taking an example of 2:40 for an 800m race (which is 80 seconds per 400m) your time at 800m pace for 300m would be  $\frac{3}{4}$  of 80s = 60s and for 200m it would be 40s. The above method isn't an exact predictor, but it does provide a rough guide for calculating training times for various interval distances.

Use the times you have calculated as the basis for your training. Aim to maintain your calculated pace consistently throughout the session rather than fading towards the end. As your pace judgement improves, your race times will become more consistent allowing you to set new goals that are attainable.

If you want to compete across a range of events you have to accept a compromise in performance compared with focussing training on a specific event or class of events. It is not realistic to expect to excel at 60m sprinting and 10,000m track races. Training for one compromises the outcomes for the other.

At regular intervals, review your training paces to account for improved race outcomes or, pragmatically, for the gradual slowing that comes inevitably with age. Age graded tables indicate that a male can expect to slow by at least 18-24s and a female by 36-49s a year between 60 and 70 years of age over 10,000m. This may be a bit depressing, but just remember that this is the case for everyone, not just you. It does make a significant difference in the range of performances across 5 year age groups as age increases so if you want to win, aim to do so when you enter a new age group because it will just get harder from then on.

**Standard Times (100% age graded) for the 10,000m track distance (in seconds)**

Age	60	61	62	63	64	65	66	67	68	69	70
<b>M</b>	1964	1982	1999	2017	2036	2054	2073	2093	2113	2135	2159
<b>F</b>	2364	2400	2437	2476	2515	2557	2599	2643	2688	2735	2784

If you are not in the age range in the above table (or are interested in a different event) and would like to see what age is likely to do to your race times, access to age graded standard times is provided through a link in the SA Masters webpage. Remember that these times are based on world record performances so while your rate of change with age may follow the same trend, it may be a little greater than those in the age graded data.