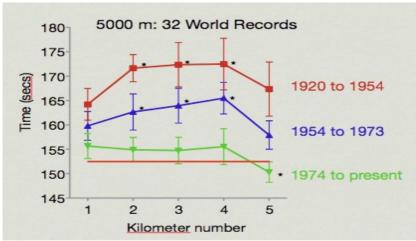
## Pacing strategies and distance races

For the purposes of what follows assume that you are managing any injuries well, are able to maintain a good training program and are motivated to compete regularly. There are several categories of pacing strategy that you could use for a distance race, say a 5000m track race. Some can quickly be discounted as not being very good candidates for allowing you to produce the best time that you are capable of. The "run as fast as you can for as long as you can" approach of the 100m sprint isn't likely to be successful over 5000m.

In most races, competitors tend to become a bit wound up while waiting for the start and, when the gun goes, run at a significantly faster pace than they are going to be able to maintain for the whole race. Sometimes this is may be due to inexperience, sometimes from trying to avoid being boxed in by other runners or by trying to stick with someone. This initial burst of enthusiasm is then followed by the middle of the race run at a slightly slower, but relatively even pace. Most runners actually tend to gradually slow throughout a race unless they have very good pace judgement, check this against distance markers and adjust effort accordingly, as distinct from just associating pace with a level of discomfort. Towards the end of the race, usually some time within the last 2 laps, the pace will increase as runners try to drop off those near them. In a field with several more or less equal ability runners it may come down to a sprint finish over the last 100 to 200 metres. If a runner knows at the start of a race that they have a faster time for the distance than the other competitors they may choose to allow one or more other runners to lead and simply sit behind them until close to the end of the race. This only works if you have the fastest kick at the end of a race. These are all strategies where the object is to win a race. In every case, each of the competitors will usually try to maintain a reserve of energy for the final part of the race. What if your aim is to run the fastest 5000m you can?

A comparison of pacing strategies for world records over different eras for the the 5000m suggests an evolution of strategy over time:



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While still keeping a reserve to pick up the pace over the last km, record breaking races in what could be called the modern era are now much more evenly paced over the first 4 kms of the race. The above data are derived from elite athletes, not masters athletes who are faced with age-related physiological slowing of pace over time, but it does still indicate that an even pace for most of the race is a strategy you might consider for running your best time for 5000m. The key factors are being able to determine at the start of the race what that pace should be for you, having the pace judgment to maintain that pace and not being distracted by the tactics adopted by other runners. That pace will be one that leaves you with very little or no reserve of energy at the end of the race – if you can still sprint you could have run the preceding distance at a faster pace.

Research reported in *Running Research News* (v23 n8) suggests a different approach for non-record breakers. The sample used in the study was small - 11 subjects described as competitive female runners with 5k race times between 18 and 21 minutes. Each runner ran 2 baseline 5ks and the better time was used for pacing in the trial. In three trials over 3 weeks, the subjects ran 5k using three different strategies in random order. The first was to run the 5k at an even pace; the second required them to run the first mile 3% faster than their even pace and in the third trial they ran the first mile 6% faster than baseline pace. In both the second and third trials the subjects ran as fast as they could after the fast start. It was found that there was no

significant difference in the times for the last 2 miles across the trials - why the report mixed miles and kms was not clear. Testing after each trial showed equivalent physiological states for the runners. The study showed that the strategy where the subjects ran the first mile 6% faster than baseline pace achieved the best race times, the 3% group was next best and no one reached a best 5k time with even pacing.

What will work best for you? The only way to find out is to try different strategies and the above discussion gives you several options to experiment with. Every race you run should be a learning experience as each will usually involve a different combination of competitors and conditions. If your aim is to win, or to finish in the top group of runners, it pays to do a little homework on any competitors you have not raced before. Who has a good sprint left at the finish? Who tends to start at a pace they cannot sustain? You may go into a race with a strategy in mind, but sometimes you will have to adapt that strategy as the race progresses if other competitors don't do what you expect.