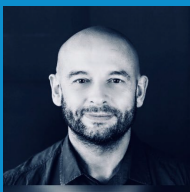




Lecture | Thursday 17th October 2019 | 6pm-7pm  
University of Lausanne | Synathlon 2420

# breaking 2: The application of sports science to enhancing marathon performance

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# BREAKING 2: The Application of Sports Science to Enhancing Marathon performance

On 6th May, 2017, exactly 63 years after Sir Roger Bannister ran the first sub-4 min mile, three elite distance runners attempted the (almost) unthinkable: to run a 26.2 mile marathon in less than 2 hours. This event, performed at the Formula 1 race track in Monza, Italy, was the culmination of more than 2 years of scientific development work by Nike and its associates (including the presenter). The existing marathon world record for men stood at 2 hours, 2 minutes and 57 seconds and there had been much speculation amongst sports scientists and the athletic community over whether a sub-2 hour marathon may be humanly possible (and, if so, when and how it might occur). In the 'Breaking 2' event, Eliud Kipchoge of Kenya ran 2:00:25, just one second per mile shy of a sub-2 hour performance. In this presentation, I shall describe the physiological limitations to human endurance exercise performance and outline the strategy employed by the Nike team with regard to athlete selection and creation of the optimal conditions to make the sub-2 attempt viable. This will include information on the battery of laboratory and field-based physiological tests used to identify the athletes most likely to achieve the feat and insight into consideration given to the environmental, training, course, pacing, drafting, biomechanical and nutritional factors that can impact marathon performance.



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