

# ‘No human is limited,’ says marathon champion

**Running into history:** They kept up with the green laser and the Kenyan smashed two hours. © Jon Super

Was it tainted by technology? Eliud Kipchoge has entered the pantheon of the greats alongside Roger Bannister who ran a four-minute mile, 65 years ago. A triumph for sport — or for science?

It was the first time in his life that they had been there to watch him run a marathon. And afterwards, he ran straight into the arms of his wife, Grace, and his three children.

The 34-year-old father had just obliterated a barrier that no other human had ever broken.

He had run a marathon in less than two hours. **Eliud Kipchoge** chewed up the 26.2 mile course in the Austrian capital, Vienna, in 1 hour 59 minutes and 40 seconds.

And he looked as if he had barely broken a sweat.

Inspired by **Sir Roger Bannister**, who broke the four-minute mile on a cinder track in Oxford in 1954, he said, “It took me another 65 years [...] but I’ve done it!”

He is an extraordinary human being. The writer Ed Caesar, who has spent much time with him, says he is fond of “Yoda-esque aphorisms” such as, “only the disciplined are free”.

Kipchoge grew up on a farm in Kenya. He comes from a tiny subset of the Nandi tribe called the Talai, a people still revered for their wisdom.

Although a millionaire many times over, he continues to spend six days a week at his austere training camp in the forest of **Kaptagat**, where he washes using water from a well.

Experts know that when he is running smoothly, it looks as if his thumbs are brushing fluff from the lapels of a dinner jacket. (They are his **poker “tell”**: you know Kipchoge is in trouble when he tucks his thumbs in.)

He wants his record to be about much more than athletics. For Kipchoge, it is about the purpose of life.

“It’s like the first man to go to the Moon. It’s about telling people that the only limit is in their minds,” he said at the finishing line. “We can make this world a beautiful world and a peaceful world.”

For most of history, the “sub-two” marathon existed only as science fiction.

Running fast requires an outlandish average speed of more than 13 miles per hour. (Try on a treadmill: if you are very fit, you might last two minutes.)

To achieve the goal on Saturday required a massive investment from sponsors.

First, a laser-guided route to maintain the perfect pace around a spectator-lined course chosen in Vienna’s Prater Park for its favourable **gradients**.

Second, a troop of 41 world-class **pacemakers**, rotating in groups and in the perfect **wind-reducing** formation.

Third, a start time carefully chosen and in conditions deemed most favourable by weather experts.

Fourth, **energy gels** handed to Kipchoge from a bike to avoid any need to break his stride.

Plus, a specially designed pair of Nike shoes believed to be able to provide a 4% improvement for runners.

So, was the record tainted by technology?

## The appliance of science

Yes, it was. We can’t escape the fact that this was what has been called a “moonshot” marathon — a massive team effort funded by a **billionaire**. The marginal gains enabled by the technology all add up. The time will not be an official world record because the world governing body does not recognise performances with help from pacemakers and drinks being handed over by a man on a bicycle.

Not at all, say most experts. This does not detract from a physical feat that will be remembered forever by everyone who witnessed it. Kipchoge has not faced doping allegations, nor is there any suggestion of foul play in Saturday’s run. The conquest of Mount Everest by Edmund Hillary and Tenzing Norgay was made in 1953 using supplementary oxygen. Yet nobody denies it was a triumph.

# YOU DECIDE

1. Is this one of the greatest human achievements of all time?
2. Did anything on this run give Kipchoge an “unfair” advantage?

# ACTIVITIES

1. Create a visual timeline of the history of the marathon, starting with the incredible run by the Greek messenger that inspired it in 490BC.
2. Next time you are near an athletics track, run 100 metres in 17 seconds. That is how fast you have to run *for two hours, without stopping* in order to run a marathon in under two hours!

# SOME PEOPLE SAY...

“I might live long enough to see a 2.06 [but] a two-hour marathon — definitely not.”

Derek Clayton, athlete who set the marathon record of 2:08:33 in 1969 (and is definitely still alive).

What do you think?

# Q & A

## What do we know?

On Saturday, Kipchoge wore a sleek sneaker stuffed with a spongy but responsive foam and a carbon-fibre plate, called the Vaporfly Next%. Yannis Pitsiladis, a professor who himself has been engaged in attempts to break the two-hour mark, said the shoes gave Kipchoge an “unfair advantage”.

## What do we not know?

Did they make that much difference? Kipchoge is undoubtedly the best in the world: an Olympic champion, the world-record holder, and the winner of multiple big-city marathons. Since when did we question an athlete’s performance because of their shoes?

# WORD WATCH

## Eliud Kipchoge

A Kenyan, long-distance runner who competes in the marathon and, formerly, the 5000 metres. He won the Olympic marathon in 2016, and set the marathon world record of 2:01:39 on 16 September 2018 at the 2018 Berlin Marathon. His run broke the previous world record by 1 minute and 18

seconds. It was the greatest improvement in a marathon world record time since 1967.

### **Sir Roger Bannister**

The first athlete to finish the mile run in under four minutes. He accomplished this feat on 6 May 1954 at Iffley Road track in Oxford, with Chris Chataway and Chris Brasher providing the pacing. When the announcer declared, “The time was three...”, the cheers of the crowd drowned out Bannister’s exact time, which was 3 minutes and 59.4 seconds. He had attained this record with minimal training, while practising as a junior doctor.

### **Kaptagat**

A small village in the Rift Valley Province, Kenya.

### **Poker “tell”**

In the game of poker, a tell indicates a change in behaviour of a player that gives clues about the strengths of their cards, predicting their likely performance.

### **Gradients**

Slopes.

### **Pacesetters**

Athletes who run alongside you in order to keep you “up to speed”.

### **Wind-reducing**

The front V shape of five runners created a wash of air to flow around Kipchoge and reduce the drag on him. Two runners behind Kipchoge provided “static pressure” to push Kipchoge along.

### **Energy gels**

These offer a quick and easy way to replenish carbohydrates to help a runner, cyclist or footballer work harder for longer.

### **Billionaire**

Kipchoge’s attempt in Vienna was funded by Ineos, a British chemicals company. The owner of Ineos, Jim Ratcliffe, is Britain’s richest man. His company’s ownership of sports teams has been termed “sportswashing”—reputation laundering, through sports — a charge that Ratcliffe refutes.