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doi:10.1093/occmed/kqs089

## Born to run?

I've never really enjoyed running and yet it is something I have done for most of my adult life. Running is unpleasant, mainly painful, you want it to stop and its often dark, cold, raining or all three. Motivating yourself to go running can be hard. Who in their right mind would want to get home after a busy day, change into shorts and then a few minutes later feel as if they were about to expire? Perhaps it was cross country running at school having been deemed unsuitable for the rugby pitch. I remember traipsing, lobster limbed, over open moorland in freezing temperatures, howling winds and lashing rain every Wednesday afternoon. The experience must have left deep rooted masochistic tendencies that periodically throughout my life have caused me to pull on running shoes and complete some hellish event such as a 10k, half marathon and for some inexplicable reason, the London marathon. The one time running is enjoyable is when it stops; my only runner's high is akin to not bashing your head against a wall. I do appreciate the benefits of running, the instant stress relief—it's hard to worry about anything when fighting for breath—and the very noticeable improvements in almost all aspects of health and well-being but I've always preferred hill walking as a means of exercise. Unfortunately a hill is a less accessible piece of exercise equipment than a road or a canal towpath. But walking of any type is more enjoyable than running and I don't have many patients who escape advice on exercise, particularly the benefits of walking. So it is interesting to learn that we are designed to run and it should feel very

natural to us. In a fascinating BMJ podcast [1] Daniel Lieberman, an evolutionary biologist from Harvard, explains how we have evolved to run. Our ancestors started walking 6 million years ago losing the ability to gallop in the process. The ability to run long distances evolved about 2 million years ago and enabled 'persistence hunting'—we run at speeds that make animals gallop which prevents them panting, they have to stop to cool down and we catch them up. The human body is beautifully designed to run. We have short toes, an arched foot and a strong Achilles tendon which together act as a powerful spring mechanism, returning almost 50% of the energy from foot strike. Other features include long legs, a waist that enables us to turn our bodies, semicircular canals that maintain balance while turning our head and crucially millions of sweat glands enabling us to lose heat while running. This evolution is so efficient that, incredibly, running uses barely more calories than walking. A male hunter gatherer covered 15 km a day costing 1000 calories if walking, but only 1400 calories if running. I'll try and remember that the next time I pull those running shoes on or perhaps I'll remember that you don't have to run to burn the calories.

John Hobson e-mail: hon.editor@som.org.uk

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