

Give barefoot running the boot?

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Barefoot running has been making headlines ever since 1960, when a shoeless Abebe Bikila set a new world-record marathon time at the Rome Olympics. Even manufacturers have muscled in on the trend over the years, with most now offering their own version of 'barefoot' or 'minimalist' shoes.

Supporters of barefoot [running](#) make a variety of claims about its virtues – but what does the scientific evidence actually say?

Benno Nigg and Henrik Enders from the Human Performance Laboratory at the University of Calgary investigated. Their paper, published in the journal *Footwear Science*, examines the known research into barefoot running's effects on foot motion, training, running economy and injury.

They started with the barefoot boosters' claims that running without shoes encourages a [forefoot](#) rather than a 'heel' landing, making runners less prone to injury. Nigg and Enders dispute this, saying that not only does the available research not prove any reduced injury risk, other factors like the running surface, shoe choice, speed and individual preferences play too large a role to make such generalisations possible. Likewise, the researchers found no difference between shod and barefoot movements in their ability to strengthen certain muscles.

The additional weight of a shoe (up to about 300g) didn't seem to have much effect on performance, either. What seemed to make more of a difference was what Nigg and Enders call the 'preferred movement

pattern': the combination of chosen [footwear](#) and a runner's preferred strike pattern.

Nigg and Enders also debunk the main claim of barefoot supporters: that running without shoes leads to fewer injuries. They point to problems with the research on which the original claims were based and note that while existing articles address the different injuries caused by different landing styles, they know of 'no publication that provides hard evidence that people running barefoot have fewer injuries than people running in [running shoes](#)'. They conclude, quite simply, that 'it is not known whether people running barefoot have more, equal, or fewer injuries than people running in conventional running shoes.'

The current discussion on the benefits of barefoot versus shod running tends to be focused on 'which is better'. Nigg and Enders' work suggests that perhaps this isn't the right question to ask. What's more important, at least in terms of performance and injury, appears to be individual preference and running style. 'Subjective preferences' should play a bigger role in the discussion, whatever shoe manufacturers, coaches or other athletes might say: in the end, [runners](#) run best when they're comfortable – whatever they're wearing (or not) on their feet. This paper is an important contribution to a debate that for now, seems certain to run and run.

More information: Nigg, B. and Enders, H. Barefoot running – some critical considerations, *Footwear Science*, Vol. 5, No. 1, 1–7.
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