

# Regular walking protects the Masai against cardiovascular disease

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Scientists have long been puzzled by how the Masai can avoid cardiovascular disease despite having a diet rich in animal fats. Researchers at Karolinska Institutet believe that their secret is in their regular walking.

There is strong evidence that the high consumption of animal fats increases the risk of developing cardiovascular disease. Many scientists have therefore been surprised that the nomadic Masai of Kenya and Tanzania are seldom afflicted by the disease, despite having a diet that is rich in animal fats and deficient in carbohydrates.

This fact, which has been known to scientists for 40 years, has raised speculations that the Masai are genetically protected from cardiovascular disease. Now, a unique study by Dr Julia Mbalilaki in association with colleagues from Norway and Tanzania, suggests that the reason is more likely to be the Masai's active lifestyle.

Their results are based on examinations of the lifestyles, diets and cardiovascular risk factors of 985 middle-aged men and women in Tanzania, 130 of who were Masai, 371 farmers and 484 urbanites. In line with previous studies, their results show that the Masai not only have a diet richer in animal fat than that of the other subjects, but also run the lowest cardiovascular risk, which is to say that they have the lowest body weights, waist-measurements and blood pressure, combined with a healthy blood lipid profile.

What sets the Masai lifestyle apart is also a very high degree of physical activity. The Masai studied expended 2,500 kilocalories a day more than the basic requirement, compared with 1,500 kilocalories a day for the farmers and 891 kilocalories a day for the urbanites. According to the team, most Westerners would have to walk roughly 20 km a day to achieve the Masai level of energy expenditure.

The scientists believe that the Masai are protected by their high physical activity rather than by some unknown genetic factor.

“This is the first time that cardiovascular risk factors have been fully studied in the Masai,” says Dr Mbalilaki. “Bearing in mind the vast amount of walking they do, it no longer seems strange that the Masai have low waist-measurements and good blood lipid profiles, despite the levels of animal fat in their food.”

Citation: ‘Daily energy expenditure and cardiovascular risk in Masai, rural and urban Bantu Tanzanians’, Julia Aneth Mbalilaki, Zablon Masesa, Sigmund Bjarne Strømme, Arne Torbjørn Høstmark, Jan Sundquist, Per Wändell, Annika Rosengren and Mai-Lis Hellenius, *British Journal of Sports Medicine*, online 3 June 2008, doi:10.1136/bjsm.2007.044966 [bjsm.bmj.com/](http://bjsm.bmj.com/)

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