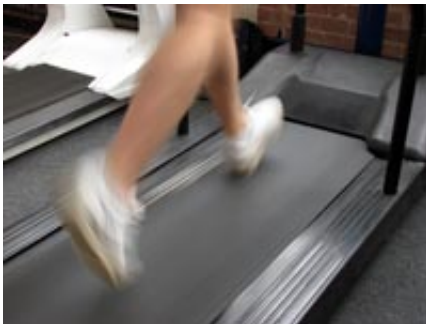


South Asians need to exercise for 20 minutes longer per day than Europeans

December 12 2013, by Nick Wade



New research has suggested men of South Asian origin may need to exercise for approximately 20 minutes a day longer than their European counterparts.

Current [physical activity](#) guidelines recommend that all adults take at least 150 minutes of moderate-intensity physical activity (equivalent to walking briskly for 30 minutes on 5 days of the week) per week.

However, the evidence that these guidelines are based on is largely derived from studies of populations of white European origin. It has been unclear whether this physical activity recommendation is appropriate for other ethnic groups. However, new findings from the University of Glasgow's Institute for Cardiovascular and Medical Sciences and published in the medical journal *PLOS ONE*, have shown that men of South Asian ethnic origin may need to undertake about 250

minutes per week of physical activity to obtain equivalent benefits.

The study tested 75 South Asian and 83 European men aged between 40 and 70, measuring their physical activity over a 7-day period using motion sensing devices and assessing their risk of heart disease and diabetes by measuring the levels of sugar, insulin and fats in their bloodstream, as well as their blood pressure. Statistical analysis techniques were used to determine each person's heart disease and diabetes risk profile and then to study how this risk level varied according to physical activity level in the two different ethnic groups.

The results demonstrate for the first time that South Asian men may need to undertake greater levels of physical activity than white European men to exhibit a similar risk profile for heart disease and diabetes.

This suggests that physical activity guidelines may ultimately need to be revised to take into account ethnic differences in heart disease and diabetes risk. This would represent an important departure from the current 'one-size-fits-all' policy.

Dr Jason Gill, from the University of Glasgow's Institute of Cardiovascular and Medical Sciences, who led the study alongside Dr Carlos Celis-Morales, Dr Nazim Ghouri, Dr Mark Bailey and Professor Naveed Sattar, said: "While this would be a new suggestion for physical activity guidelines, the concept of ethnicity-specific public health guidelines has already been adopted for obesity.

"Earlier this year the National Institute for Health Care and Excellence (NICE) recommended that Asians need to achieve lower levels of body mass index (BMI) than Europeans for prevention of diabetes, challenging the notion that a BMI threshold of 30 kg.m⁻² for obesity is appropriate for all [ethnic groups](#). Our findings extend the concept of ethnicity-specific public health guidance to the domain of physical

activity."

Dr Ghouri said: "It is already known that South Asians, who represent 20 percent of the world's population, have a 3-5 fold increased prevalence of type 2 diabetes, and develop the disease around a decade earlier and at a lower BMI, compared with white Europeans. Previous studies have also shown that South Asians have lower levels of aerobic fitness and a reduced ability to oxidise fat during exercise, compared to white Europeans, and that this is likely to contribute to their adverse risk profile for diabetes and heart disease.

"However, despite their increased diabetes and [heart disease](#) risk, South Asians appear, at least in the UK, to be less active than their white European counterparts."

Dr Celis-Morales said: "This research makes a clear case for physical activity guidelines to be ethnically-specific and we hope that this work will help facilitate the larger definitive studies needed to influence guidelines and policy.

"Various National and International guidelines recommend that we all undertake about 150 minutes of moderate intensity physical activity per week. However, most the research used to come to this figure was conducted using studies of people from European descent, and current guidelines should not be seen as a one-size-fits-all solution.

"Our preliminary results make a clear case for [physical activity guidelines](#) to be stratified according to ethnicity, and messages tailored in a more effective manner."

More information: Read the paper:
dx.plos.org/10.1371/journal.pone.0082568

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