**THE ASSOCIATION BETWEEN PHYSICAL ACTIVITY LEVELS AND BLOOD PRESSURE**

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Objectives: To estimate the proportion of adults who have met the current recommendations of physical activity guidelines and to examine the association between physical activity levels and blood pressure.

Background: Existing research shows the use of physical activity to reduce high blood pressure, but a few studies have examined the effects of different levels of physical activity on blood pressure. Previous research suggested demonstrating a dose response relationship.

Methods:Atotal of 3389 (1687 men and 1702 women) adults aged 18 to 65 years from the National Health and Nutrition Examination Survey 2007-08 were included. The physical activity levels (inactive, less, moderate and highly active) were derived from guidelines by Center for Disease Control and Prevention 2008 using the minutes of moderate and vigorous intensity recreational activity per day. Multiple and logistic regression models are used.

Results:56.4%of men and 50.4% of women met the recommended amount of physical activity. In men, compared to the inactive group, on average the less active group had systolic blood pressure reduced by 4.40 mmHg (p<0.05) when controlled for age, ethnic group, smoking and total cholesterol. The odds of having high blood pressure was 0.224 (CI= 0.068-0.719) in the less active group compared to inactive group. In women, only systolic blood pressure showed an inverse relationship in less active group compared to inactive.

Conclusions: The less active group showed a significant reduction in high blood pressure in men compared to inactive group though there were no significant results seen in women.