

Accelerometer-determined physical activity level in adults with abdominal obesity.

ABSTRACT

A cross-sectional study was carried out to assess the physical activity level among 201 adults with abdominal obesity at the Universiti Putra Malaysia, Malaysia. Socio-demographic information, anthropometric data, blood pressure and lipoprotein-lipid profiles were collected. Steps/day and energy expenditure were determined by Lifecorder e-Step accelerometer. Mean steps/day of the subjects was 6420 ± 2283 . The total daily energy expenditure (TDEE) averaged 2015 ± 307 kcal. Based on step counts, 91.5% of the subjects fell below the "active" category but based on physical activity level (PAL), 97.0% fell under the "low active" or "sedentary". Individuals with abdominal obesity in this study were relatively sedentary. Significant positive correlations were found between TDEE and body mass index (men: $r = 0.428$, $p = 0.0001$; women: $r = 0.556$, $p = 0.0001$), waist circumference (men: $r = 0.508$, $p = 0.0001$; women: $r = 0.340$, $p = 0.0001$) and percentage of body fat (men: $r = 0.261$, $p = 0.028$; women: $r = 0.414$, $p = 0.0001$). There was an inverse relationship between physical activity level and the odds of having metabolic syndrome. However, most of the variables studied did not vary between physical activity categories.

Keyword: Accelerometer; Physical activity; Steps/day; Daily energy expenditure; Physical activity; Odds ratio; Metabolic syndrome.