

**Prevalence of hypertension and obesity among walkers of Kinshasa walker club**

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**Objective:** To determine the frequency of Common non-communicable diseases (CNCDS) (Obesity, Hypertension) and to estimate the relationship between BMI and blood pressure in the population of walkers.

**Material and methods:** In a cross-sectional study, 420 walkers from the walker club of Kinshasa (CMKIN) consecutively enrolled (mean age 46 years, 49 years and 42 years respectively for the entire group, men and women) were examined. The parameters of interest included: weight, height, BMI, and blood pressure. The Chi -square and Student tests were used respectively, for the comparison of proportions and averages.

**Results:** The frequency of obesity and hypertension was 24% (43% in women) and 36% (44% in women), respectively. Hypertension was unknown for most walkers and only 1.2% knew the impact of regular walking on blood pressure and weight and they knew certainly they were hypertensive. The prevalence of hypertension increased with BMI (12.5%; 26.3%; 36.8% and 41% respectively for thinness, normal weight, overweight and obese people. The systolic blood pressure (SBP), Diastolic blood pressure (DBP), and Mean Arterial Pressure (MAP) were very high among overweight and obese people than in people with normal BMI and underweight (SBP  $128.2 \pm 18.3$  mmHg (BMI < 25 kg / m<sup>2</sup>) against  $132.7 \pm 19.3$  mmHg (BMI  $\geq 25$  kg / m<sup>2</sup>); DBP  $82.3 \pm 10.6$  mmHg (BMI < 25 kg / m<sup>2</sup>) against  $85.2 \pm 3.1$  mmHg (BMI  $\geq 25$  kg / m<sup>2</sup>).

**Conclusion:** Obesity and unrecognized hypertension are very common among walkers. The prevalence of hypertension increases with BMI. Lifestyle modification such as walker should be encouraged to fight the burden of CNCDS.

**Keywords:** Walkers, Kinshasa Walkers' Club (CMKIN), high blood pressure, overweight and obesity.