

## **ASUPAN LEMAK, NATRIUM, KALIUM, KALSIUM, MAGNESIUM DAN TEKANAN DARAH PADA PRIA OBESITAS DI KOTA SEMARANG**

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### **ABSTRAK**

Latar Belakang: Angka kejadian obesitas pada pria rendah tetapi terdapat peningkatan dari tahun sebelumnya sehingga seseorang dengan obesitas dapat mengalami hipertensi. AHA merekomendasikan diet untuk tekanan darah seperti peningkatan asupan kalium, magnesium, serta kalsium dan restriksi asupan natrium dan lemak.

Tujuan: Mengetahui hubungan asupan lemak, natrium, kalium, kalsium, magnesium terhadap tekanan darah pada pria obesitas di Kota Semarang

Metode: Penelitian ini menggunakan data *baseline* pre-intervensi berjudul “*Spirulina Platensis Supplementation and Calorie Restriction in Obese Men*” pada Oktober-November 2023 di Kota Semarang. Penelitian desain potong lintang dilakukan pada 40 pria obesitas usia 25-53 tahun. Data yang didapat adalah data asupan dan tekanan darah serta diuji dengan normalitas *Shapiro-Wilk* dan korelasi *Spearman-Rank*.

Hasil: Rerata asupan lemak 97,5% subjek berlebih. Seluruh subjek (100%) memiliki asupan natrium baik serta asupan kalium, kalsium, magnesium, dan serat rendah. Sebanyak 42,5% subjek termasuk pre-hipertensi sistolik dan diastolik (135,5/87 mmHg). Uji bivariat menyatakan terdapat hubungan antara asupan natrium dengan tekanan darah sistolik dan asupan magnesium terhadap tekanan darah diastolik. Tidak terdapat hubungan antara asupan natrium dengan tekanan darah diastolik dan asupan magnesium terhadap tekanan darah sistolik. Tidak berkorelasi antara asupan lemak, kalium, kalsium, karbohidrat, protein, serat, dan riwayat merokok dengan tekanan darah.

Kesimpulan: Terdapat hubungan asupan natrium dengan tekanan darah sistolik serta asupan magnesium dengan tekanan darah diastolik. Tidak berkorelasi antara asupan natrium dengan tekanan darah diastolik dan asupan magnesium dengan tekanan darah sistolik. Asupan lemak, kalium, kalsium, karbohidrat, protein, serat, dan riwayat merokok tidak berkorelasi dengan tekanan darah.

Keywords: Lemak, natrium, kalium, kalsium, magnesium, tekanan darah, obesitas

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## **Fat, Sodium, Potassium, Calcium, Magnesium Intake and Blood Pressure in Obese Men Semarang City**

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### **ABSTRACT**

**Background:** The incidence of obesity in men is low but there is an increase from the previous year. Obesity people may develop hypertension. The AHA recommends a diet for blood pressure such as increased intake of potassium, magnesium, and calcium and restriction of sodium and fat intake.

**Objective:** To examine the association of fat, sodium, potassium, calcium, magnesium intake with blood pressure in obese men in Semarang City.

**Methods:** This study used pre-intervention baseline data entitled "Spirulina Platensis Supplementation and Calorie Restriction in Obese Men" in October-November 2023 in Semarang City. The cross- sectional design study was conducted on 40 obese men aged 25-53 years. Data obtained were nutrients intake and blood pressure data tested with Shapiro-Wilk normality and Spearman-Rank correlation.

**Results:** The mean fat intake of 97.5% of the subjects was excessive. All subjects (100%) had adequate sodium intake and low intake of potassium, calcium, magnesium, and fiber. The results showed 42.5% of the subjects were classified as systolic and diastolic pre-hypertension (135,5/87 mmHg). Bivariate test stated that there is an association between sodium intake and systolic blood pressure and magnesium intake and diastolic blood pressure. There is no relationship between sodium intake and diastolic blood pressure and magnesium intake and systolic blood pressure. There is no correlation between intake of fat, potassium, calcium, carbohydrate, protein, fiber, and smoking history with blood pressure.

**Conclusion:** There is an association between sodium intake and systolic blood pressure and magnesium intake and diastolic blood pressure. There is no relationship between sodium intake and diastolic blood pressure and magnesium intake and systolic blood pressure as well as intake of fat, potassium, calcium, carbohydrate, protein, fiber, and smoking history and blood pressure.

**Keywords:** Fat, sodium, potassium, calcium, magnesium, blood pressure, obesity

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