

***The Relationship of Potassium, Calcium, and Magnesium Intake to Blood Pressure in
Hypertensive Patients at Citra Husada Hospital, Jember***

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ABSTRACT

Hypertension is a non-communicable disease characterized by elevated systolic blood pressure (≥ 140 mmHg) or diastolic blood pressure (≥ 90 mmHg), which increases the risk of cardiovascular complications. Blood pressure control in hypertensive patients is influenced by various factors, including the intake of micronutrients such as potassium, calcium, and magnesium, which play a role in blood pressure regulation. This study aimed to analyze the relationship between potassium, calcium, and magnesium intake and blood pressure in hospitalized hypertensive patients at Citra Husada Jember Hospital. This was an observational analytic quantitative study with a cross-sectional design, conducted from January to March 2026 at Citra Husada Jember Hospital. The study included 38 hospitalized patients diagnosed with hypertension who met the inclusion and exclusion criteria. Data on potassium, calcium, and magnesium intake were obtained through the food weighing method, while blood pressure data were obtained through direct measurement by the researcher. Statistical analysis was performed using SPSS 26.0 with the Spearman correlation test. The results showed no significant relationship between potassium intake and blood pressure ($p=0.211$). Furthermore, there was no significant relationship between calcium intake and blood pressure ($p=0.634$), nor was there a relationship between magnesium intake and blood pressure ($p=0.864$).

Keywords: hypertension, potassium, calcium, magnesium, blood pressure.