

Hubungan Asupan Zat Gizi Makro dan Massa Otot dengan Kekuatan Otot pada Pekerja TRC BPBD Jember. (*Relationship Between Macronutrient Intake and Muscle Mass with Muscle Strength in Workers Badan Penanggulangan Bencana Daerah Jember*).

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ABSTRACT

Background: *Skeletal muscle disorder are one type of health disorder that can lead to Occupational Diseases. Work task that rely heavily on muscle strength make the performance of muscle loads higher so that it can increase the risk of skeletal muscle disorders in workers.* **Objective:** *To determine the relationship between macronutrient intake and muscle mass with muscle strenght in workers TRC BPBD Jember.* **Methods:** *The research design used a cross sectional time approach involving 21 workers respondents with probability sampling method, namely simple random sampling technique. Macronutrient intake was measured using the Food Recall instrument, while muscle mass was measured by Bioelectrical Impedance Analysis Tanita BC 541, and muscle strength was measured using Handgrip Dynamometer. Data were analyzed stastically with and tested for normality with Shapiro Wilk, and data were analyzed with bivariate analysis using the Pearson Test.* **Result:** *the results of the analysis on the macronutrient intake variable obtained the results of protein ($p=0,049$), fat ($p=0,553$), and carbohydrates ($p=0,030$) meaning that there is a significant relationship between macronutrient intake of protein and carbohydrates with muscle strength and positive correlation direction. There is no relationship between fat macronutrient intake and muscle strength. While the results of the analysis on the muscle mass variable obtained the results ($p=0,025$) means that there is a significant relationship between muscle mass and muscle strength and positive correlation direction.* **Conclusion:** *There is a relationship between macronutrient intake of protein, carbohydrates, muscle mass with muscle strength in BPBD Jember workers. But there is no relationship between fat macronutrient intake and muscle strength in BPBD Jember.*

Keywords: Macronutrient Intake, Muscle Mass, Muscle Strength.