

## **The Utilization of Edamame Soybean Flour (*Glycine max* (L.) Merrill) as a Material Modification in the Formula Diet Stroke**

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### **ABSTRACT**

*This research is aimed to analyzing the effect of edamame flour as a material modification in the formula diet stroke on the physical quality (osmolarity and viscosity), nutrient content, and bioavailability protein that was conducted using an experiment method with a Completely Randomized Design. The addition of edamame was treated in the order of 65%, 70%, 75%, 80%, 85%, 90%, each repeated four times, thus obtaining twenty four experimental units. The data was analyzed using the analysis of variance (ANOVA), followed by the Duncan's Multiple Range Test (DMRT) with a significance level of 5%. The result of the research showed that the edamame flour could be utilized as a source of protein to make the formula diet stroke. The addition of edamame as a material modification had a significant effect ( $P < 0,05$ ) on viscosity, osmolarity, and protein content. The best effect of adding edamame flour as a material modification on making the formula diet stroke was achieved by adding 65% of edamame (P1) with nutrient content is energy 445 kkal, protein 17,86 gram, fat 14,09 gram, carbohydrate 60,57 gram, water 8,92 gram, ash 5,24 gram, and dietary fiber 6,34 gram. The value of bioavailability protein is SAA 32,18, MC Theoretical 89,27, NPU 28,73%, PST 16,77%, and PER 4,51%. The comparison between formula diet stroke standard hospital with formula diet stoke modification edamame flour showed that energy, protein, fat, and dietary fiber of formula diet stoke modification edamame flour higher than formula diet stroke standard hospital. However, carbohydrate content and bioavailability protein (SAA, MC Theoretical, NPU, PST, PER) of formula diet stoke modification edamame flour lower than formula diet stroke standard hospital.*

**Keywords:** *Formula Diet Stroke, Viscosity, Osmolarity, Protein*