

# **Making Broccoli Flour Substitute Steamed Sponge (*Brassica oleracea* L) as High Zinc Food to Prevent Stunting**

**Putri Cahyaningtyas Ressay Sumekar**  
Clinical Nutrition Study Program  
Department of Health

## **ABSTRACT**

Stunting (dwarfism) is a condition in which toddlers have a length or height that is less when compared to age. This condition is measured by length or height which is  $> -2$  SD median child growth standard according to WHO. Toddler stunting is a chronic nutritional problem caused by three main factors, namely unbalanced food intake, a history of low birth weight and a history of disease. This study aims to determine the effect of adding broccoli flour on steamed sponge as a high zinc food to prevent stunting in toddlers. The design used in this study was a completely randomized design (CRD) with 5 formulations of the ratio of wheat flour and broccoli flour of 100%: 0%, 95%: 5%, 90%: 10%, 85%: 15% and 80%: 20% with 5 repetitions. Based on the research results of steamed sponge with the proportion of broccoli flour as much as 15% and 85% wheat flour produced the best steamed sponge product from the organoleptic test results with an average value of preference for color 3 (rather like), taste 2 (dislike), aroma 2 (dislike) ) and texture 3 (rather like). The result of the physical test is data of steamed sponge flower with the best treatment that is equal to 82.91%. The results of the chemical test of steamed sponge with the best treatment have 282 kcal of energy, 11.46% protein, 10.25% fat, 35.96% carbohydrates, 1.19% ash content, 41.14% moisture content and 0.42 mg zinc. per 100 grams of product. For one time consumption, toddlers are recommended to consume as much as 45 grams of steamed sponge with an energy content of 126.9 kcal, 4.61 grams of fat, 5.15 grams of protein, 16.18 grams of carbohydrates and 0.18 mg of zinc. In a day the toddler is given 2 snacks.

**Keywords:** Toddler, Steamed Sponge, Stunting, Broccoli Flour, Wheat Flour