

ABSTRACT

Background : Bone's health has a deep connection with nutrition intake. Enough nutrition like calcium, magnesium, phosphorus, protein, and iron are useful for keeping the bone healthy. Sea cucumber is one of the sea creatures that has plenty of nutrition which is good for the body. We examined the sea cucumber to determine if it contains nutrition for keeping the bone healthy.

Objective : To acknowledge and compare of nutrition in 'Susu' sea cucumber, 'Gosok' sea cucumber, 'Gamat' sea cucumber, and 'packaged milk' so sea cucumber can be used as an alternative source in increasing bone's health.

Methods : The in vitro test using three samples of sea cucumber and three different kinds of packaged milk. The test was performed to five nutrients eg calcium, magnesium, phosphorus, protein, and iron. The analysis result can be obtained using independent sample test statistic method and Anova test.

Results : Sea cucumber almost fulfill the recommended daily dietary allowance. The calcium in sea cucumber is higher than milk (95% CI : -1969.85354 - 4094.26021). Phosphorus in sea cucumber is higher than milk (95% CI : -224.68925 - 607.44925). Magnesium in sea cucumber is higher than milk (95% CI : 1499.67724 - 3243.20276). Protein in sea cucumber is higher than milk (95% CI : 18.71876 - 67.70790). Iron in sea cucumber is higher than milk (95% CI : 25.08204 - 54.45796).

Conclusion : Sea cucumber contains good nutrition to fulfill the recommended dietary allowance and keep bone's health. The nutrition in sea cucumber are greater than packaged milk. 'Susu' sea cucumber better than the other two types. Sea cucumber could be used as an alternative source for increasing bone's health.

Key Words : 'Susu' sea cucumber, 'Gosok' sea cucumber, 'Gamat' sea cucumber, packaged milk, nutrients, bone's health, recommended dietary allowance.