

## Effect of Inulin-Substituted Ice Cream on Waist Circumference and Blood Pressure of Adolescents with Abdominal Obesity

**Authors :** Nur H. Ahmad, Silvia S. Inge, Vanessa A. Julliete, A. Veraditias, Laila F. Febinda

**Abstract :** Abdominal obesity is a risk factor for metabolic syndrome and mostly found in adolescents. Waist circumference is related to abdominal obesity which has a significant effect on the increase of blood pressure. Inulin is one of prebiotic, that has health benefits by offering the potential for lipid management, that can be useful to decrease the risk factor of metabolic syndrome. The aim of the research is to evaluate the effect of 10 gram inulin-substituted ice cream in waist circumference and blood pressure of abdominal obesity adolescents. Inulin had the ability to produce Short Chain Fatty Acid which can improve blood pressure and waist circumference. Systolic blood pressure was significantly decreased in the treatment group ( $p=0.028$ ) with the mean of reduction  $7.35 \pm 11.59$  mmHg. However, diastolic blood pressure and waist circumference showed no significant effect. Waist circumference, systolic blood pressure and diastolic blood pressure was decreased in control group. These results suggest that inulin-substituted ice cream used as therapeutics and prevention for the early onset of metabolic syndrome.

**Keywords :** blood pressure, inulin, metabolic syndrome, waist circumference

**Conference Title :** ICFNS 2017 : International Conference on Functional Foods, Nutraceuticals and Supplements

**Conference Location :** Tokyo, Japan

**Conference Dates :** March 27-28, 2017