

**“THE EFFECT OF FUNCTIONAL BEVERAGE OF MELON JUICE
COMBINED WITH LIME ON POTASSIUM LEVELS IN WHITE RATS”**

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ABSTRACT

Potassium is the main ion in intracellular fluid that plays an important role in fluid balance, electrolytes, nerve transmission, and muscle contraction. Potassium deficiency due to heavy physical activity due to excessive sweating that causes potassium loss can cause heart problems, metabolism, and dehydration, so that fluid and electrolyte replacement is needed through the consumption of functional drinks. The study aims to determine the effect of giving a functional drink of melon juice combined with lime on the blood potassium levels of swimming white rats. This study was an experimental study with a pretest-posttest control group design using 24 male Wistar rats divided into negative control groups (aquades), positive control (isotonic drink), and treatment (functional drink of melon juice combined with lime). All groups did heavy physical activity swimming for 40 minutes for 7 days. The results showed no difference in blood potassium levels between groups before and after the intervention ($p = 0.870$), but there was a significant difference in blood potassium levels in the treatment group before and after the intervention ($p = 0.046$). There was no difference in blood potassium levels before and after the intervention between groups ($p = 0.755$). It can be concluded that there is no effect of giving melon juice combined with lime on the potassium levels of white mice.

Keywords: *Potassium, heavy physical activity, potassium, melon, lime.*