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## Sub-chronic toxicity study of water melon rind extract in albino rats

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Most fruits provide low energy with high volume and are therefore categorized as low caloric food. Watermelon is one of the low caloric foods and has several health benefits, however it is underutilized. The juice or pulp from water melon is used for human consumption while the rind and seeds are seen as waste and usually thrown away. Most people avoid eating water melon rind due to its unpleasant flavor and fear of being toxic. Sub chronic toxicity study was carried out on the rind of water melon to investigate if it is safe for consumption as well as evaluate its effect on the liver of albino rats. Twenty rats were divided into four groups with five animals in each group. Group 1 animals served as the control, groups 2, 3 and 4 animals were orally administered 500 mg/kg, 1500 mg/kg and 3500 mg/kg extract of water melon rind respectively for 28 days. Serum obtained from the blood samples of the rats was used for the assessment of Alanine amino transferase and Aspartate amino transferase activity. Markers of oxidative stress were determined in the post mitochondrial fraction of the Liver. From the results there was no significant difference in Alanine amino transferase and Aspartate amino transferase activity in the serum of rats administered the extract when compared with control. Also there was no induction of lipid peroxidation and no significant change in Glutathione concentration and activities of Superoxide dismutase, Catalase and Glutathione-S-Transferase in rats administered the extract compared with control. This results show that water melon rind extract is not hepatotoxic and may therefore is safe for consumption. However there is need for further study on the rind of water melon to exploit its health benefits as well as to investigate its effect on other organs apart from the liver.

### Biography

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