



**RESEARCH ARTICLE :**

## Bio availability of iron from finger millet, pearl millet and rice (control) recipes

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**SUMMARY :** The present study entitled “Bioavailability of iron from finger and pearl millet based recipes” was conducted on four millet preparations namely dosa, idli, roti and rice (meal), using two millets namely finger millet, pearl millet. The iron content of millets was 3.65, 7.0mg in finger millet, pearl millet, respectively. Compared to rice all millets had high amount of protein, fat, ash and iron content, while the carbohydrate was low in millets compared to rice. Wheat had similar protein, fat and carbohydrates close to many types of millet. The total iron was good in all preparations. Finger millet idli had 4.57mg and meal had 4.58mg total iron without any significant difference between the two products. The dosa had a total iron of 5.04mg and roti had 5.55mg both of which differed significantly compared to each other and with other preparations ( $p < 0.05$ ). Per cent available iron was highest in finger millet dosa at 37.3% against 4.1% in idli, 12.3% in roti and 2.7% in meal with significant difference between each other ( $p < 0.05$ ). Per cent available iron was highest in pearl millet dosa at 62.4% against 33.5% in idli, 44.0% in roti and 44.0% in meal. Total iron content was 7.9mg in rice dosa, which was highest, followed by 4.8mg in roti, 3.8mg in meal and 1.8mg in idli, with significant difference between preparations ( $p < 0.05$ ). Per cent available iron was least in roti at 5.2% against meal at 8.2%, idli at 6.59% and dosa at 25.6% with significant difference between each other. Percent available iron was least in roti at 5.2% against meal at 8.2%, idli at 6.59% and dosa at 25.6% with significant difference between each other. The *in vitro* availability of iron was high in dosa, probably due to fermentation and shallow fry on iron tawa, seems to low steamed cooking method of pearl millet idly compared to dry heat or roasted millet preparations.

**KEY WORDS:**

Bioavailability of iron,  
Finger millet, Pearl  
millet, Rice

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