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**Table S1** Proximate analysis includes yield of total protein, soluble protein, Total starch, total fat, total ash, and total moisture content in native and treated pearl millet flour

Samples	Total protein	Soluble protein	Total starch	Total fat	Total ash	Moisture
MPMH 17 C	$7.96 \pm 0.02^{\mathrm{a}}$	$1.45 \pm 0.06^{a}$	$64.44 \pm 1.44^{a}$	$7.35 \pm 0.06^{a}$	$1.34\pm0.01^a$	$10.0 \pm 0.02^{a}$
MPMH 17 HT	$7.67\pm0.02^a$	$0.62\pm0.01^{b}$	$57.51 \pm 1.17^{b}$	$6.95\pm0.04^{b}$	$1.42\pm0.02^{b}$	$13.5\pm0.02^{\mathrm{b}}$
MPMH 17 MW	$7.82 \pm 0.01^{\text{a}}$	$1.21\pm0.06^a$	$62.19 \pm 0.63^{a}$	$7.24\pm0.01^a$	$1.50\pm0.01^{\text{c}}$	$7.4 \pm 0.02^{c}$
MPMH 17 IR	$7.70 \pm 0.02^{\mathrm{a}}$	$1.25\pm0.02^a$	$62.55 \pm 0.63^{a}$	$7.19\pm0.06^a$	$1.46\pm0.02^{c}$	$8.8 \pm 0.01^{\rm d}$

All the values are given in percentage. Values with same upper-case letter are not significantly different (P>0.05) according to Tukey's test. Native (C) Flour; Hydrothermal (HT) treated flour; Microwave (MW) treated flour; Infrared (IR) treated flour.

Table S2 Concentration of iron and zinc in flour of MPMH 17 pearl millet variety

Sample	Iron conc ppm/ g flour	Zinc conc ppm/ g flour
MPMH 17	$39.0 \pm 1.42^{a}$	$31.5 \pm 1.07^{a}$

All values are given in ppm/ g flour and values with a different letter in each column indicates significantly different at p < 0.05.

**Table S3** Concentration of iron and zinc in intestinal digesta released during *in vitro* digestion of roti prepared from native and treated pearl millet flour

Samples	Iron conc in intestinal digesta	Zinc conc in intestinal digesta
MPMH 17 C	$5.4 \pm 0.14^{a}$	$5.2\pm0.28^a$
MPMH 17 HT	$4.6 \pm 0.14^{a}$	$4.4 \pm 0.28^a$
MPMH 17 MW	$5.6 \pm 0.28^{\text{a}}$	$5.6\pm0.14^{\rm a}$
MPMH 17 IR	$5.0 \pm 0.14^{\rm a}$	$5.4\pm0.14^{\rm a}$

All values are given in ppm/g digesta and values with same upper-case letter are not significantly different (P>0.05) according to Tukey's test. Native (C) Flour; Hydrothermal (HT) treated flour; Microwave (MW) treated flour; Infrared (IR) treated flour.