

# THE HINDU

## Are women in Karnataka consuming an excessive amount of iron?

**Afshan Yasmeen**

BENGALURU, FEBRUARY 21, 2019

### **Study finds risk of inadequate or excess iron intake after fortification and supplementation in Karnataka is lesser than in other States**

While the National Family Health Survey (NFHS-4) has pointed out that the overall prevalence of anaemia in Karnataka among women is 51.2%, the risk of inadequate or excess iron intake after fortification of a single food staple and supplementation is not more than 3%.

While the reduction of risk of dietary iron inadequacy is adequate, there is nonetheless a small proportion of women who would be at risk of excess intake and this is not ideal, according to a recent study published in the *Journal of Nutrition*.

According to the study, the revised estimate of 15 mg per day comes from transparent calculations that take into account iron loss and absorption by the body and the likely dietary intake varying across States.

An Indian Council of Medical Research expert group had in 2010 recommended a daily iron intake of 21mg per day for women of reproductive age — between 15 and 49 years. The current estimate of iron requirement is lower by 6 mg per day, meaning that the risk of dietary iron deficiency could be lower than previously thought. The study also compared these dietary risks with blood biomarker-based estimates of iron deficiency.

The study titled 'Revisiting Dietary Iron Requirement and Deficiency in Indian Women: Implications for Food Iron Fortification and Supplementation', has found that the average daily iron requirement for Indian women in the reproductive age is 15 mg and not 21 mg as currently assumed. It also calculated the risks and benefits of the current iron fortification and supplementation programs.

Based on these estimates, the team of researchers led by Anura V. Kurpad from St. John's Research Institute, Bengaluru has cautioned that fortification coupled with supplementation may expose varying but significant proportions of women in 24 States or Union territories to the risk of an excessive iron intake. "The tolerable upper limit for women of reproductive age is 45 mg per day. Prolonged exposure to iron above this limit could put women at risk of experiencing symptoms such as gastric acidity,

constipation, oxidative (physiological) stress or changes in their gut bacterial profile,” Dr. Kurpad told *The Hindu*. Under the revised estimate, the study predicts that the proportion of women exposed to excess iron under fortification and supplementation would range from 54% in Rajasthan and 15% in Uttar Pradesh to 2% in Bengal, 1% in Goa and Kerala, and 3% in Karnataka.

Dr. Kurpad, who also heads the Scientific Panel on Nutrition and Fortification at Food Safety and Standards Authority of India (FSSAI), said FSSAI has set standards for iron fortification of salt and rice, which are relevant in southern States, and salt and wheat which are relevant in northern States.

Each of these staples, when fortified, could provide an additional 10 mg of iron per day. “With Karnataka’s low risk of dietary iron inadequacy when just one staple food is fortified, along with the iron and folic acid (FA) supplementation being provided under the National Iron Plus Initiative (NIPI) for anaemia control program, it would suffice if just one of the two food staple commodities – either salt or rice – is fortified,” Dr. Kurpad said, stressing on the need for a “precision-based approach”.

However, gynaecologists in Karnataka said risk of excess overall iron intake is not an issue among women. Hema Divakar, Federation of Obstetric and Gynaecological Societies of India (FOGSI) ambassador to International Federation of Gynaecology and Obstetrics (FIGO), attributed this to low absorption levels mainly because of flouride contamination in water, rampant problem of chronic intestinal inflammation in women and the habit of drinking tea and chewing supari (betel nut).

Countering this, Dr. Anura Kurpad said, “We are talking about a habitual daily iron intake. When iron is given as a treatment, one balances the risks versus the benefit in severely anaemic women.”