

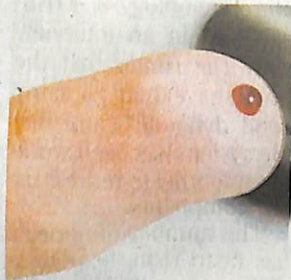
Research questions 'iron deficiency' as key cause of anaemia in India

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NEW DELHI

The conventional wisdom that iron deficiency is the primary cause of anaemia in India may be outdated, with a host of other factors, ranging from Vitamin B12 deficiency to air pollution, influencing anaemia, says a study involving researchers from multiple institutions that was published earlier this week. Moreover, the manner in which blood is drawn for testing anaemia under public health programmes can dramatically alter estimates of the condition.

The study has appeared in the peer-reviewed *European Journal of Clinical Nutrition*.

Anaemia is caused due to a lack of enough red blood cells (RBC) or haemoglobin. The common wisdom is that insufficient iron is the culprit and is the



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driving force behind public policy interventions such as iron supplementation or mixing iron into staple foods (bio-fortification).

The latest official assessment of anaemia in the fifth round of the National Family Health Survey (NFHS), in 2019-2021, suggests that despite decades of policy intervention, anaemia has only gotten worse.

The latest study, funded

by the Department of Biotechnology, measured venous blood haemoglobin concentrations from about 4,500 people in eight States. Overall, 34.9% of those tested were anaemic. However, only 9% of them had what could be medically characterised as iron-deficiency anaemia; 22% of them were characterised as having anaemia from "unknown" causes.

"The major proportion of anaemia in all groups studied, was due to... unknown (and unmeasured) causes of anaemia. This could be due to deficiencies in other erythropoietic (blood-producing) nutrients like B12 or folate, or due to hemoglobinopathies, undetected blood loss, an unhygienic environment [20] or other causes like air pollution," the authors said in their report.

The team of scientists

and doctors spanned institutions such as St. John's Medical College, Bengaluru; National Institute of Nutrition; Centre for Cellular and Molecular Biology; and Institute of Genomics and Integrative Biology.

For women aged between 15 and 49, anaemia prevalence was 41.1% in comparison with 60.8% in the NFHS-5. The prevalence of anaemia in adolescent girls (15-19 years) was 44.3% compared with 62.6% in NFHS-5.

The percentage drop in anaemia in this study compared with the NFHS could be explained by the method of blood collection, said Anura Kurpad, professor, St. John's Medical College, and one of the authors of the study.

The NFHS relied on drawing capillary blood, or from a pinprick, compared with the more involved venous-blood draw.