Study finds iron may not improve fertility

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A new study led by Boston University School of Public Health (BUSPH) researchers finds that there is no consistent association between consuming iron and becoming pregnant. The study, published in The *Journal of Nutrition*, finds that heme iron, which mostly comes from meat, has no effect on how long it takes a woman to conceive, while non-heme iron, which is found mainly in vegetables and dietary supplements, has a modest effect only for women who are more likely to be iron-deficient because of heavy menses or having previously given birth.

"For the average pregnancy planner, it is probably wise to take a preconception multivitamin, but more for the folic acid than for the iron content," says study senior author Dr. Elizabeth Hatch, professor of epidemiology at BUSPH. "If you have extremely heavy menstrual cycles, it might be a good idea to have your iron status checked by your healthcare provider."

Hatch and her colleagues analyzed data from two prospectively-studied cohorts of women who were trying to conceive: 2,969 North American women in the BUSPH-based PRESTO study and 1,693 Danish women in the Snart Foraeldre study. In both cohorts, participants completed questionnaires every eight weeks for one year or until they conceived. The researchers estimated heme and non-heme iron intake from the questionnaire responses about diet and about dietary supplement use.

The researchers found no association between a woman's intake of heme iron and the number of cycles it took for her to conceive. However, consuming more non-heme iron (both from dietary supplements and from food) was associated with a slightly increased chance of pregnancy in women who had previously given birth. In the PRESTO cohort, non-heme iron intake was also associated with a slightly increased chance of conception among women who had heavy menses or short menstrual cycles.

More information: Kristen A Hahn et al, Iron Consumption Is Not Consistently Associated with Fecundability among North American and Danish Pregnancy Planners, *The Journal of Nutrition* (2019). DOI: 10.1093/jn/nxz094

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