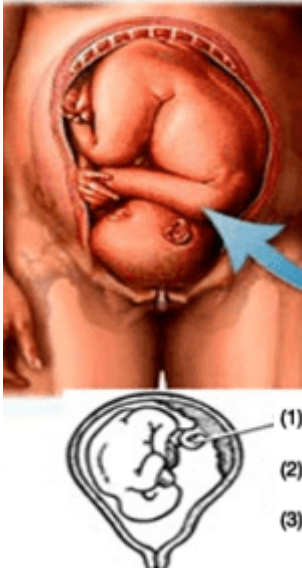


## Gestational Diabetes



# High Iron Means Increased Risk of Gestational Diabetes

Quick take: High iron means increased risk of gestational diabetes.

Gestational diabetes occurs in up to 10% of pregnant women, and can lead to complications for both mother and child. Complications include preeclampsia, a serious condition.

From the paper:

### **Aims/hypothesis**

The aim of this study was to prospectively and longitudinally investigate maternal iron status during early to mid-pregnancy, and subsequent risk of gestational diabetes mellitus (GDM), using a comprehensive panel of conventional and novel iron biomarkers.

### **Methods**

A case-control study of 107 women with GDM and 214 controls (matched on age, race/ethnicity and gestational week during blood collection) ...

### **Results**

Hepcidin concentrations during weeks 15–26 were 16% higher among women with GDM vs controls (median 6.4 vs 5.5 ng/ml;  $p = 0.02$  ),

and were positively associated with GDM risk; the aOR (95% CI) for highest vs lowest quartile was 2.61 (1.07, 6.36). **Ferritin levels were also positively associated with GDM risk; the aOR (95% CI) for highest vs lowest quartile was 2.43 (1.12, 5.28) at weeks 10–14 and 3.95 (1.38, 11.30) at weeks 15–26...**

## **Conclusions/interpretation**

Our findings suggest that elevated iron stores may be involved in the development of GDM from as early as the first trimester. This raises potential concerns for the recommendation of routine iron supplementation among iron-replete pregnant women.

As far as I'm aware, [Eugene D. Weinberg](#) was the first, or one of the first, [to call attention to the possible relation between gestational diabetes and iron.](#)

Increased ferritin is associated with diabetes, and iron depletion decreases insulin resistance.

The risk of those in the highest quartile of ferritin was **4 times** that of the lowest quartile. This is an association of course and causation is not proven. But it does call into question the idea that all pregnant women should get supplemental iron, since that would appear to be not without risk.

An [accompanying discussion](#) states:

Gross iron overload has long been known to result in diabetes mellitus. However, it is now thought that **milder levels of iron overload, possibly within the normal range, also increase the risk of diabetes mellitus.** The article by Rawal et al in this issue provides further support for the relationship between mild degrees of iron overload and the risk of gestational diabetes. The purpose of this commentary is to briefly discuss the background of this relationship and the implications it may have for routine pregnancy care.

**PS: Check out my book, [Dumping Iron.](#)**

**PPS: [You can support this site by purchasing through my Supplements Buying Guide for Men.](#)**