

# Mom, is your food depressing?

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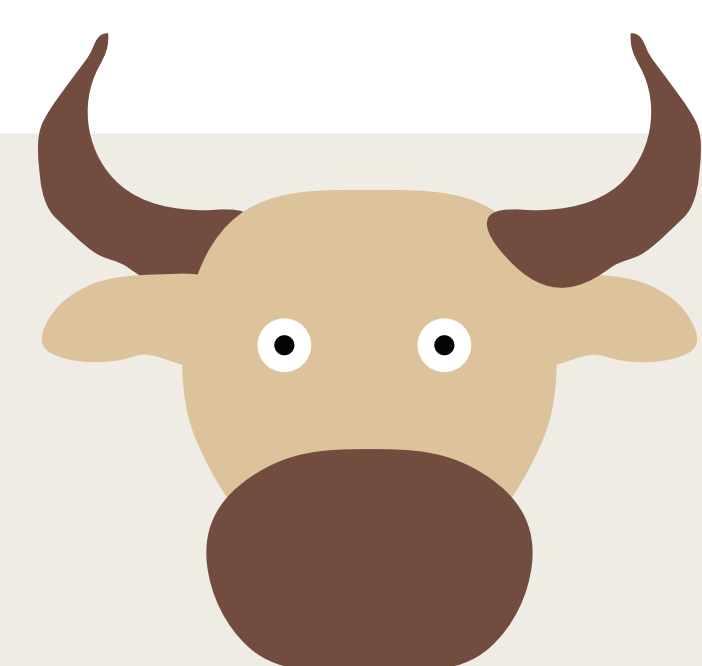
10–15%  
of new mothers experience  
postpartum depression



## Could adequate levels of iron and fatty acids decrease the likelihood of post-partum depression?

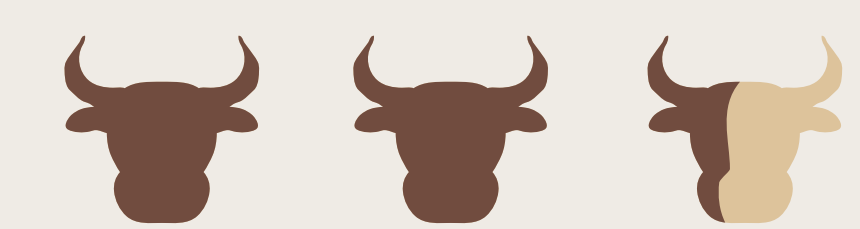
Women's well-being is important to ensure optimal conditions for their child's development. However, **prevalence of post-partum depression amongst mothers ranges from 10–15%**, which can affect their relationship with their child. Previous literature has drawn links between nutrient deficiencies in pregnant women and post-partum depression (PPD), but recent studies complicate these findings.

### Iron



In a 2011 study comprised of 729 Spanish women<sup>2</sup>, subjects with low ferritin levels 48 hours after delivery were 2.91 times more likely ( $p < 0.05$ ) to develop PPD.

In another study on 352 Saudi women<sup>3</sup>, subjects with anaemia during pregnancy were 1.70 times more likely to have PPD.



**Depletion of iron stores**  
Ferritin  $< 12 \mu\text{g/L}$

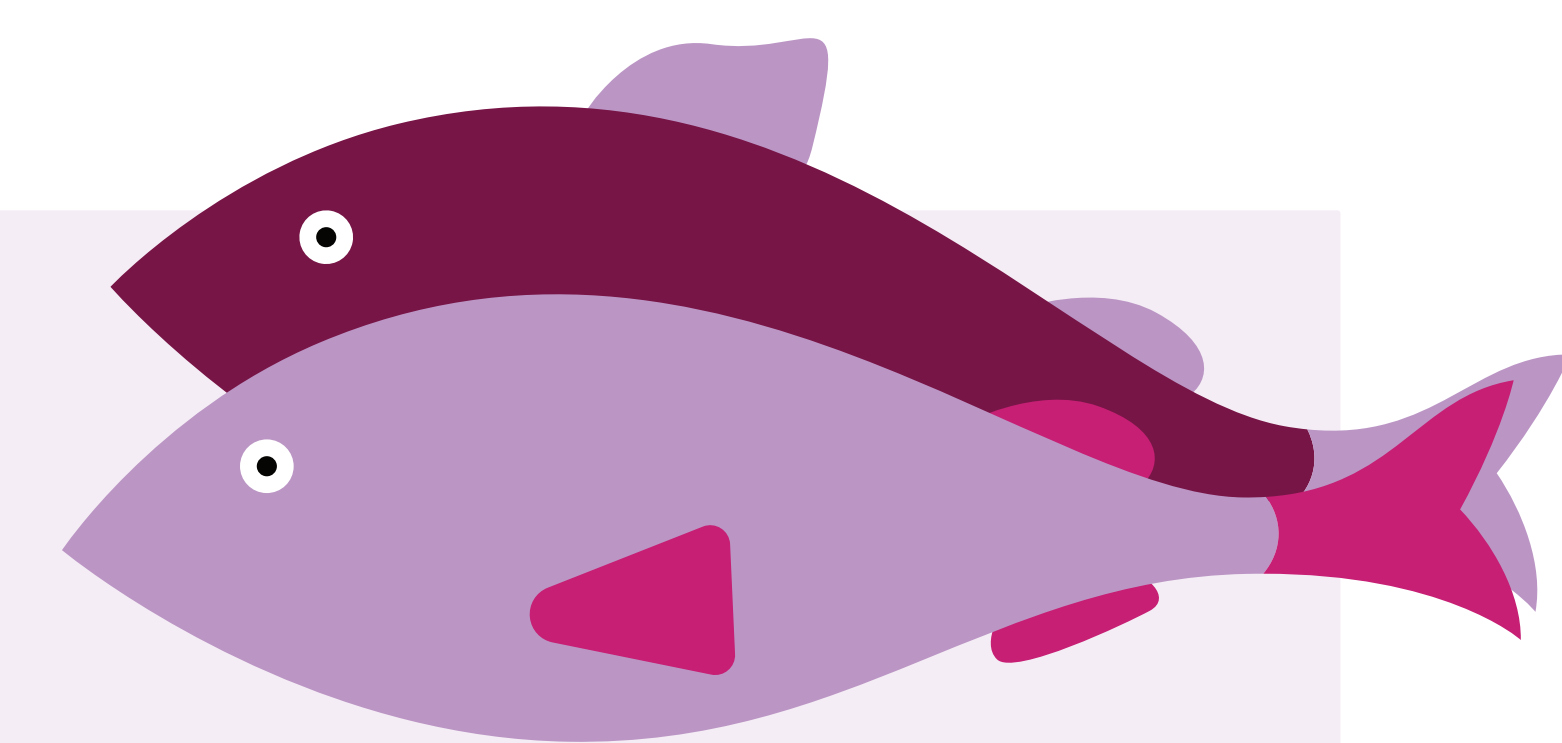


**Marginal iron deficiency**  
Ferritin  $< 12 \mu\text{g/L}$   
Transferrin saturation  $< 16\text{--}20\%$



**Iron deficiency anemia**  
Haemoglobin  $< 11 \text{g/dL}$

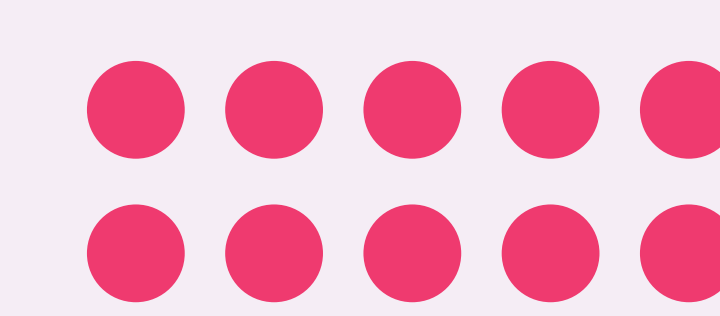
### Fatty Acids



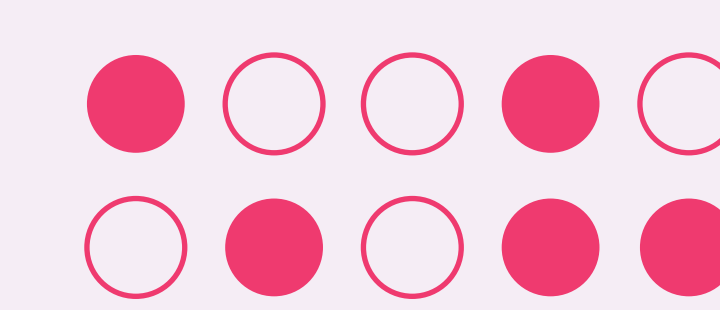
Studies have noted a lower incidence of PPD in countries with higher fish consumption<sup>4</sup>.

In three randomized control trials comprised of a total of 196 women<sup>5</sup>, no effects were found from the administration of fatty acids compared to placebo. Possible cofounders include psychotherapy, and inadequate doses of omega-3.

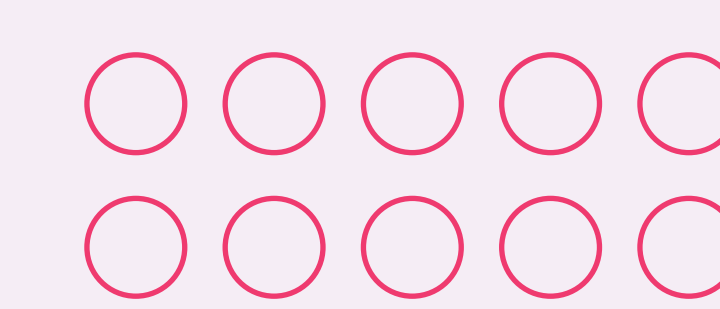
In three multivariate analysis studies made up of 1010 women, three types of associations were found: positive, mixed and an absence of relationship.



**Positive** A low omega-3 index at 28<sup>th</sup> week of pregnancy was linked with PPD symptoms at 3 months postpartum ( $p < 0.01$ ,  $n = 43$ )<sup>6</sup>.



**Mixed** Findings concluded that PUFA levels (omega-3 and omega-6) were slightly correlated to depressed women assessed with the Edinburgh Postnatal Depression Scale, used by a majority of studies related to PPD. However, there was no association when diagnosed with MINIAD (DSM-IV)<sup>7</sup>.



**No relationship** A study found no correlation between prenatal fish consumption or postnatal omega-3 levels and PPD<sup>8</sup>.

On the one hand, studies suggest we can draw strong links between various levels of iron deficiency and PPD. On the other hand, links with fatty acid deficiencies are not as clear. Treating or preventing PPD with fatty acid supplements has not been positive in the latest literature.

However, fatty acid deficiencies are present in women experiencing PPD, suggesting that future studies on the subject are needed to identify optimal doses for treatment. It is important to mention that additional time and resources may have lead to additional results.



### References

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