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Abstract

Iron and Folate Intake in Pregnant and Non-Pregnant Women †

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Abstract: Iron and folic acid deficiency are common among women of childbearing age and in pregnant women. Poor iron and folate status in women is associated with an increased risk of anemia and disorders in the fetus development during pregnancy. The reason for the deficit of these micronutrients is improper nutrition and their low bioavailability. Incorrect eating habits before pregnancy are often continued during pregnancy. The aim of this study was to determine the intake of iron and folate with diet and supplements in non-pregnant and pregnant women in each trimester. The study was conducted on 50 non-pregnant women (NPW), 50 pregnant women in the first trimester (PW_1), 50 women in the second trimester (PW_2), and 44 women in the third trimester (PW_3), aged 19–42 years. We used a validated questionnaire and a 24 h recall nutrition interview. The results were analyzed using the computer software package Aliant. The BMI index was calculated (pre-pregnancy BMI in PW groups). Statistical analysis of the results was performed using Statistica 13.3. It was found that the average BMI was 23.5 kg/m^2 and was comparable between groups. The energy intake was significantly lower in the PW_2 group (1118 kcal) and markedly higher in the PW_3 group (1925 kcal). The intake of iron and folate from the diet was below RDA in all groups, and was significantly lower in the PW_1 group (27.4% RDA for iron and 23.7% RDA for folate) and markedly higher in the NPW group (55.5% RDA for iron and 66.3% RDA for folate). Only the use of supplementation resulted in an adequate intake of iron and folates, wherein the iron supplements were used by 14% of NPW, 46% of PW_1, 40% of PW_2, and 5% of PW_3, and folate supplements were as follows: 36%, 68%, 58%, and 23%, respectively, in the analyzed groups. In conclusion, the supply of iron and folates from the diet in non-pregnant and pregnant women is low (below 50% RDA in PW in each trimester and between 50 and 60% RDA in NPW). With such a low supply of these micronutrients, supplementation seems necessary for women.

Keywords: iron; folate; pregnancy; women

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