

PREGNANCY AFTER BARIATRIC SURGERY: a narrative literature review on maternal nutritional status and nutritional supplementation management

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I have no potential conflict of interest to report



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PROBLEMS RELATED TO PREGNANCIES AFTER BARIATRIC SURGERY

- Rapid weight loss and active catabolic state in the first year after surgery
- Different effect on nutritional absorption depending on different bariatric procedure
- Preexisting nutrients deficiencies
- Poor adherence with nutritional supplementation

PRE-CONCEPTION ASSESSMENT *by a registered dietician*

- Diet history of micronutrient intake
- Adequate dietary protein intake (at least 60 g/day)
- Supplement type and compliance
- Fluid intake
- Laboratory screening for deficiencies to determine nutrition adequacy and intervention

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LABORATORY ASSESSMENT (*serum and extra serum indices to be checked*):

Every 3 months	Every 6 months	During the 1st trimester
<ul style="list-style-type: none">▪ Full blood count▪ Vitamin A▪ Vitamin B12▪ Iron, ferritin, transferritin▪ Folic acid	<ul style="list-style-type: none">▪ Serum vitamin K1▪ Vitamin D▪ Protein▪ Albumin▪ Calcium▪ Phosphate▪ Magnesium <p>In addition to renal and liver function</p>	<ul style="list-style-type: none">▪ Serum zinc▪ Copper▪ Selenium▪ Vitamin E

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MICRONUTRIENT'S SUPPLEMENTATIONS

MICRONUTRIENT	DOSE
Folic Acid	0.4 mg daily since preconception and in the 1st trimester; 4-5 mg if obese or diabetic
Vitamin B12	1 mg IM for 3 months
Vitamin A	5000 UI as beta-carotene form
Vitamin K	If deficiency noted, orally in weekly doses
Vitamin D	To keep level above 50 nmol/L (1000 IU)
Calcium	1200-1500 mg including dietary intake, add as needed
Iron	45-60 mg (elemental iron)
Thiamine	>12 mg; supplementation 300 mg with vitamin B complex 3 times daily in case of vomiting. In case of prolonged vomiting, intravenous route should be considered

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MANAGING OF PREGNANCIES AFTER BARIATRIC SURGERY

- Preoperative counseling
- Regular clinic follow-up
- Monitor GWG (gestational weight gain) and malnutrition
- Increase compliance to prescribed supplements

Thank you

