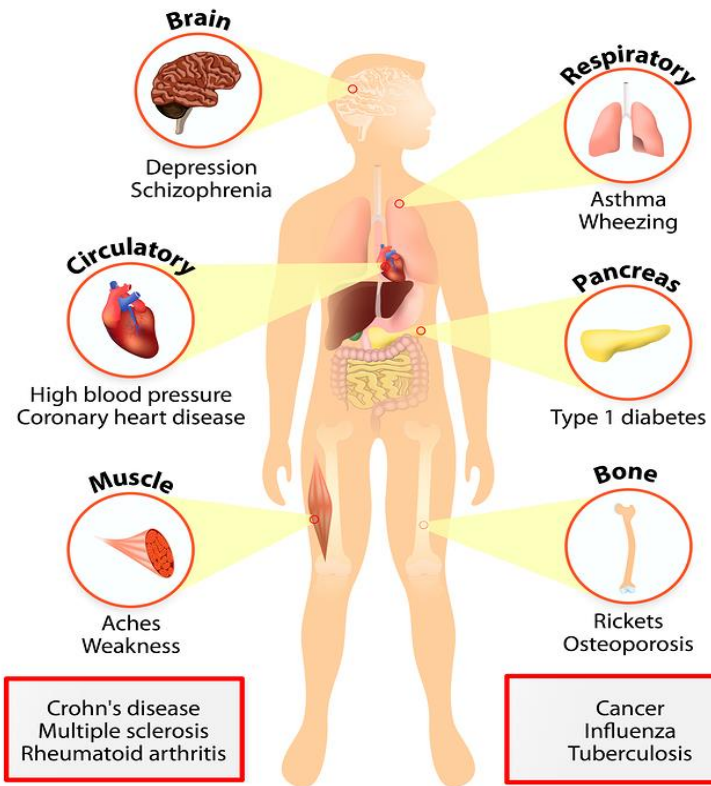


VITAMIN D deficiency



Adequate (50-150 nmol/l)

Insufficient (25-50 nmol/l)

Deficient (<25 nmol/l)

The correlation between vitamin D levels and demographics in patients with gastrointestinal disorders; a cross-sectional study

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Affiliations + expand

PMID: 32821352 PMCID: [PMC7417489](https://pubmed.ncbi.nlm.nih.gov/32821352/)

Pearson correlation coefficient $r=-0.13$
P 0.02

BMI can predict vitamin D levels in 1.7%
Of cases

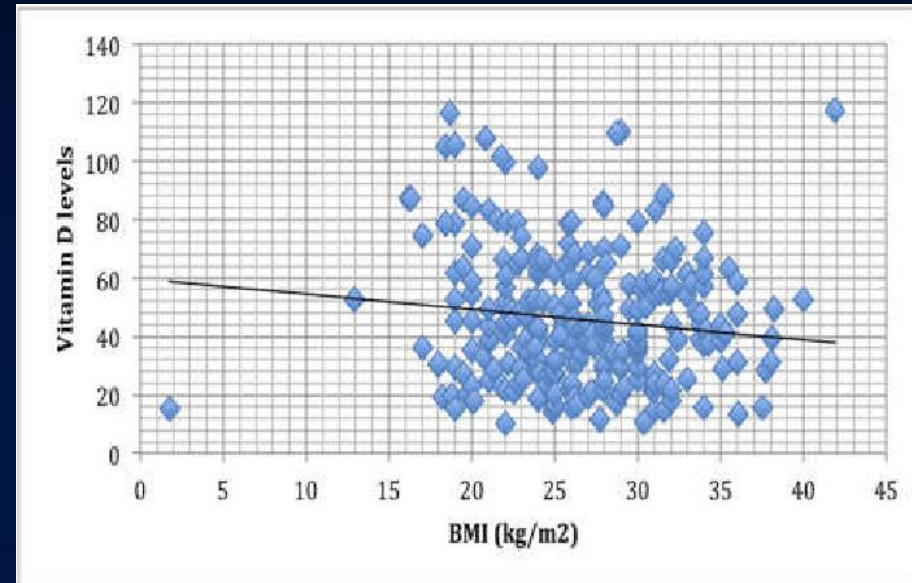


Table 2. Mean BMI and Age for patients with different levels of vitamin D

Vitamin D	Reference Range	Number in study	Age (Mean±Std. Deviation)	BMI (Mean±Std. Deviation)
Adequate	50-150nmol/L	116 (22 male/94 female)	54.23 ±17.65 years	25.60 ±5.82 Kg/m ²
Insufficient	25-50nmol/L	132 (54 male/78 female)	51.45 ±17.28 years	27.52 ±5.23 Kg/m ²
Deficient	<25nmol/L	57 (27 male/30 female)	50.40 ±16.13 years	26.21 ±5.67 Kg/m ²
Total	-	305	52.31 ±17.23 years	26.55 ±5.59 Kg/m ²

[Rev Endocr Metab Disord.](#) 2023; 24(6): 1011–1029.

PMCID: PMC10698146

Published online 2023 Sep 4. doi: [10.1007/s11154-023-09831-3](https://doi.org/10.1007/s11154-023-09831-3)

PMID: [37665480](https://pubmed.ncbi.nlm.nih.gov/37665480/)

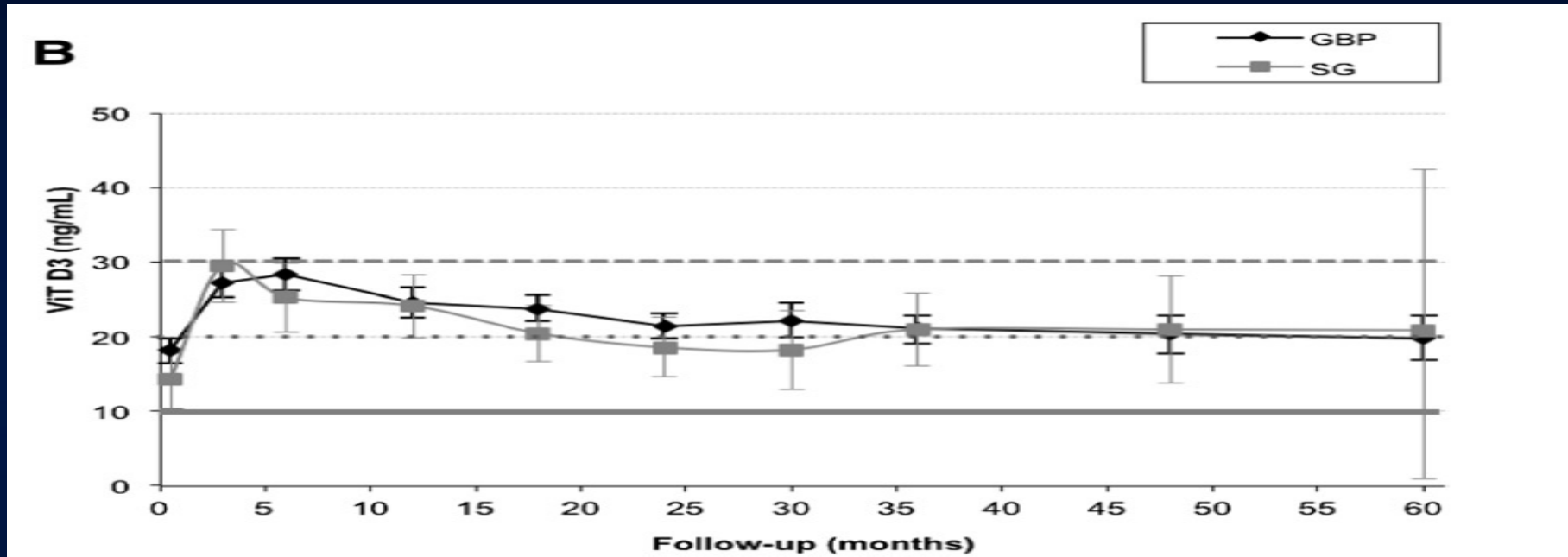
Vitamin D status and supplementation before and after Bariatric Surgery: Recommendations based on a systematic review and meta-analysis

Preoperative values

< 20 ng/mL (50 nmol/L) was 57%.

Postoperative values

< 20 ng/mL (50 nmol/L) was 64%



Vitamin D status of morbidly obese bariatric surgery patients. *J Surg Res.* 2010 Dec;164(2):198-202. doi: 10.1016/j.jss.2010.06.029. Epub 2010 Sep 8. PMID: 20850786.

Routine annual blood monitoring

	LAG B	SG/RYGB, or an OAGB with a BP limb of 150 cm or less
FBC	✓	✓
Corrected Calcium (bone profile if not available)	✓	✓
LFTs	✓	✓
U+Es	✓	✓
Vitamin B12 + Folate	✓	✓
Ferritin*	✓	✓
HbA1c, lipids	C	C
Vitamin D	✓	✓
Zinc	S	✓
Copper	S	✓
Selenium	S	✓
Vitamins E, A or K1	S	S

C = co-morbidity monitoring if had pre-op diagnosis
S = if symptomatic of deficiency (see signs/symptoms table below)

*Low ferritin suggests iron deficiency, but a high ferritin level does not rule out iron deficiency (for example, inflammation may raise ferritin levels). A complete iron profile is more useful in this situation.

Note: a trace element vacutainer tube is needed for zinc, copper and selenium tests

LAGB=laparoscopic gastric banding, SG=sleeve gastrectomy, RYGB=Roux-en-Y gastric bypass, OAGB=one-anastomosis gastric bypass, BP=bilio-pancreatic

Table 2: Routine lifelong nutritional supplements in absence of any nutritional deficiencies

	LAGB	SG/RYGB, or an OAGB with a BP limb of 150cm or less
Adcal D3 chewable tablet BD or equivalent (eg. calcium citrate)		✓

§ Patients may need additional vitamin D supplements to reach serum 25 hydroxyvitamin D3 levels ≥ 75 nmol/L (monitor and prescribe additional vitamin D supplements alone rather than prescribing additional Adcal D3 (or equivalent)). Calcium citrate is preferred over calcium carbonate in patients with past or family history of kidney stones.

Review > *Obes Surg.* 2023 Jun;33(6):1846-1856. doi: 10.1007/s11695-023-06556-9. Epub 2023 Apr 6.

One Anastomosis Gastric Bypass (OAGB) with a 150-cm Biliopancreatic Limb (BPL) Versus a 200-cm BPL, a Systematic Review and Meta-analysis

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