



© Blood Disorder Day
Pathways are subject to clinical judgement and actual practice patterns may not always follow the proposed steps in this pathway.



Causes of vitamin B12 deficiency

- Gastric*
- » Pernicious anemia (autoantibodies)
- » Gastrectomy/bariatric surgery
- » Gastritis
- Pancreatitis*
- Pancreatic insufficiency*
- Strict vegan diet*

Small bowel disease

- » Malabsorption syndrome
- » Ileal resection or bypass
- » Inflammatory bowel disease
- » Celiac disease
- » Bacterial overgrowth
- » Blind loop
- » Fish tapeworm

Agents that impair B12 absorption

- » Biguanides (e.g. metformin)
- » Proton pump inhibitors
- » Histamine-2 receptor antagonists
- » Nitrous oxide gas

Causes of Folate deficiency

Malabsorption

- » Celiac disease
- » Inflammatory bowel disease
- » Intestinal bypass

Folate inhibition

- » Methotrexate
- » Dilantin
- » Alcoholism

Patients with any of the above should receive folate supplementation. No need to measure folate level. NOTE: mandatory staple food fortification has eradicated dietary folate deficiency