



could take a year or more before deficiency of vitamin B12

Medications That Lower Vitamin B12 Concentrations

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| Interacting Medication | Proposed Mechanism |
|---|---|
| Colchicine <div style="border: 1px solid orange; padding: 2px; display: inline-block; margin-top: 5px;">Goutex</div> | Impairs or inhibits the receptors located in the terminal ileum of the small intestine for which vitamin B12/intrinsic factor complexes would bind to for absorption. |
| Chloramphenicol | Most likely due to an inhibition within the bone marrow due to chloramphenicol's ability to cause bone marrow suppression thus depriving the red bloods cells from utilizing the available B12. |
| Ethanol | Impairs absorption from the intestine possibly due to affects on the pancreas. May affect the pancreas' ability to secrete proteases necessary to release vitamin B12 from R-binders within the duodenum. |
| Histamine 2 Receptor Antagonists (H2RA) <div style="border: 1px solid blue; padding: 2px; display: inline-block; margin-top: 5px;">Ranitidine</div> | Increasing the gastric pH (i.e., making the gastric pH more alkaline) can impair the activation of pepsin that is necessary for freeing vitamin B12 bound to protein within the ingested food so that it can then bind to an R-binder. When the pH is high pepsinogen is not as effectively converted to pepsin for this process to take place. |
| Metformin <div style="border: 1px solid green; padding: 2px; display: inline-block; margin-top: 5px;">Glucomet & Glucophage</div> | The mechanisms may be multifactorial and include: an effect on intestinal motility, bacterial overgrowth, and/or alterations in calcium-dependent uptake of the vitamin B12/intrinsic factor complex within the terminal ileum of the small intestine. |
| Proton Pump Inhibitors (PPI) * <div style="border: 1px solid orange; padding: 2px; display: inline-block; margin-top: 5px;">Omeprazole</div> | Increasing the gastric pH (i.e., making the gastric pH more alkaline) can impair the activation of pepsin that is necessary for freeing vitamin B12 bound to protein within the ingested food so that it can then bind to an R-binder. When the pH is high pepsinogen is not as effectively converted to pepsin for this process to take place. |

(187-883 pg/ml)

- Hematopoietic Disorders
- Spinal Cord Related Neuropathies
- Impaired DNA synthesis, Impaired cell division
- Metabolism of odd-chain fatty acids