

# Concomitant metformin, GERD meds up vitamin B12 depletion

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(HealthDay)—Concomitant use of metformin and histamine H<sub>2</sub>-receptor antagonists or proton pump inhibitors has the potential to induce vitamin B<sub>12</sub> depletion and neuropathy, according to research published in the April issue of *Clinical Diabetes*.

Matthew J. Zdilla, from West Liberty University in West Virginia, examined the potential for vitamin B<sub>12</sub> depletion induced by concomitant use of [metformin](#) and acid-suppressing medications, as well as their contribution to [neuropathy](#) among patients with diabetes.

Zdilla notes that among individuals with diabetes, 40.7 percent have [gastroesophageal reflux disease](#) and 70 percent of those take oral antidiabetic agents. Individuals treated with metformin have lower B<sub>12</sub>

levels and worse diabetic neuropathy than those managed with other medications. Metformin-induced B<sub>12</sub> depletion is likely due to a decrease in bile acid secretion, decreased intrinsic factor secretion, and decreased intestinal absorption. Histamine H<sub>2</sub>-receptor antagonists and [proton pump inhibitors](#) interfere with B<sub>12</sub> absorption and result in B<sub>12</sub> depletion, with reports attributing depletion to decreased gastric acid, pepsin, and intrinsic factor output. Concomitant therapy is likely to have an additive effect on B<sub>12</sub> levels and the potential for neuropathy.

"Pharmacists, clinicians, and patients need to be aware of the potential for polypharmacy-induced B<sub>12</sub> depletion and the potential for subsequent neuropathy," Zdilla writes. "Awareness is particularly important because metformin and acid-suppressing medications are commonly used in the diabetic population, which has a high prevalence of neuropathy."

**More information:** [Abstract](#)  
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