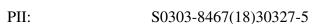
### **Accepted Manuscript**

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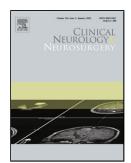
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# Subacute Combined Degeneration of the Spinal Cord Following Nitrous Oxide Anesthesia: A Systematic Review of Cases

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#### **Highlights**

- Nitrous oxide (N<sub>2</sub>O) inhibits Vitamin B12, which can result in spinal cord injury
- Patients with gastrointestinal comorbidities are particularly at risk for injury
- Screening for B12 status prior to N<sub>2</sub>O anesthesia may decrease morbidity

#### **ABSTRACT**

**Objective**: Vitamin B12 deficiency can lead to subacute combined degeneration (SCD). Nitrous oxide ( $N_2O$ ) is an anesthetic which oxidizes the cobalt ion of vitamin B12, interfering with its function as a coenzyme. In this study, we conduct a systematic review of reported cases of SCD following nitrous oxide anesthesia.

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