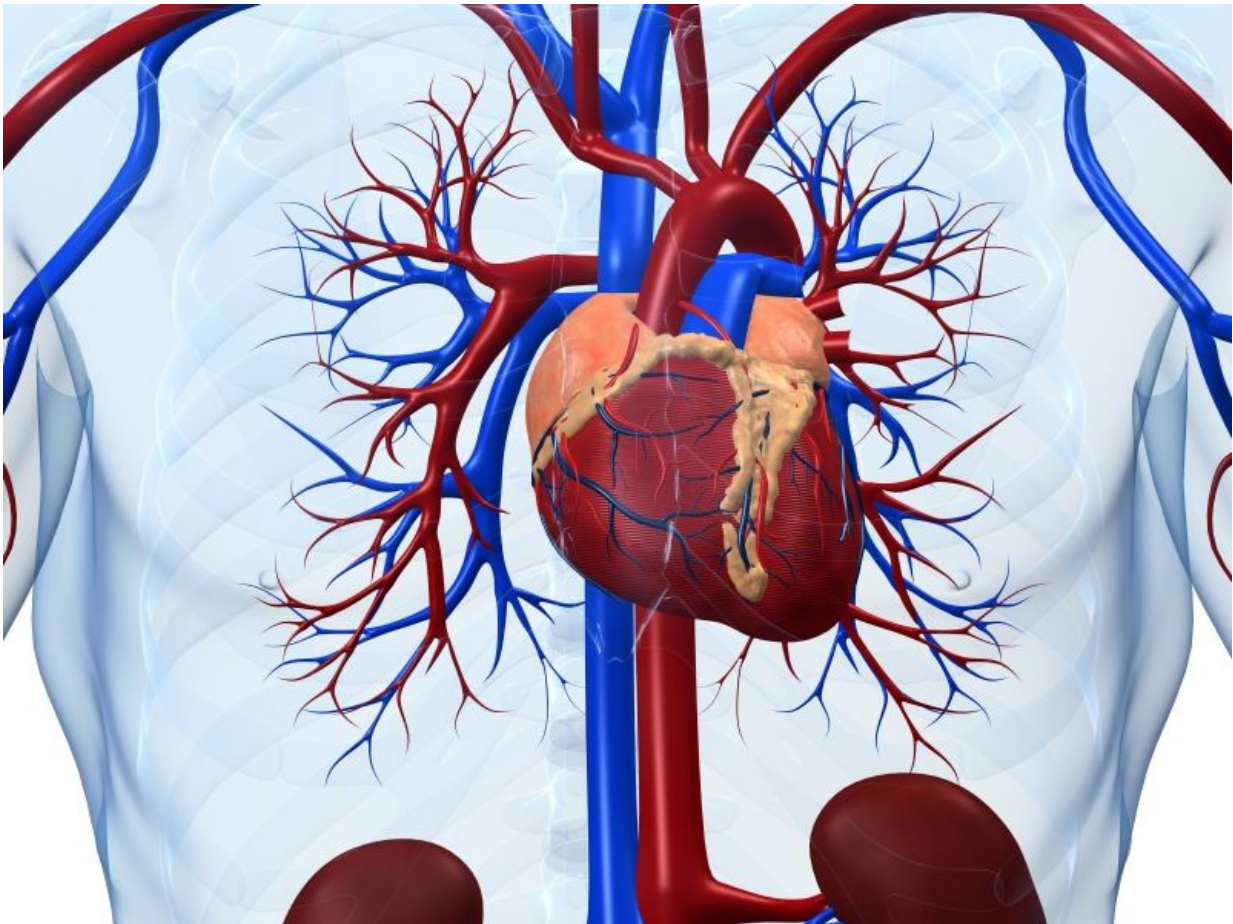


# Vagal nerve stimulation can lead to cardiac complications

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(HealthDay)—Stimulation of the vagus nerve as part of intraoperative

neuromonitoring (IONM) during thyroid surgery can result in severe cardiac complications, according to a case report published online Feb. 1 in *Head & Neck*.

Martin Almquist, M.D., Ph.D., from Skåne University Hospital in Lund, Sweden, and colleagues describe two cases of severe cardiac [complications](#) in [patients](#) undergoing IONM of the recurrent laryngeal nerve.

The first patient was an 81-year-old woman with type 2 diabetes and hypertension who was admitted for parathyroid surgery because of primary hyperparathyroidism. Following vagal stimulation with 1 mA, profound bradycardia occurred, which proceeded to cardiac arrest within a few seconds. The sinus rhythm recovered after cardiopulmonary resuscitation with external heart massage and atropine and ephedrine administration. The second patient was a 76-year-old man who was undergoing [thyroid surgery](#) to remove a large lesion in the neck. After stimulation of the vagal nerve during dissection, the patient experienced asystole. He responded to intravenous ephedrine and cardiac massage.

"These two cases demonstrate that stimulation of the vagus [nerve](#) during IONM can lead to profound cardiac events," the authors write.

"Consideration should be given to these potential complications when utilizing IONM."

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