

Widespread vitamin D deficiency in thyroidectomy patients

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A new study from researchers at Henry Ford Hospital in Detroit finds widespread vitamin D deficiency among patients who undergo a thyroidectomy, potentially putting them at greater risk for developing dangerously low blood calcium levels after surgery.

Among the patients in the Henry Ford study, 40 percent had low vitamin D levels prior to [surgery](#). Those more likely to be vitamin D deficient are individuals older than age 50, African Americans, Hispanics and patients undergoing surgery for hyperthyroidism.

"The issue of vitamin D deficiency in patients who are undergoing thyroid surgery can potentially impact both the care of [parathyroid glands](#) during surgery and calcium management after surgery," says lead study author Hamad Chaudhary, M.D., with the Department of Otolaryngology-Head & Neck Surgery at Henry Ford.

"By routinely checking vitamin D levels in all patients scheduled for thyroid surgery or selectively testing those at great risk, we may be able to improve surgical outcomes and shorten hospital stays."

Study results were presented this week at the 2014 American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS) annual meeting in Orlando.

Thyroidectomy, the surgical removal of all or part of the thyroid gland, is most often recommended for thyroid cancer, goiter or hyperthyroidism (an over-active thyroid). Women are more likely to undergo [thyroidectomy](#) than men.

During the past decade, vitamin D deficiency has received a great deal of attention for the role it may play in chronic illnesses such as cardiovascular disease and cancer.

Hypocalcemia, low levels of calcium in the blood, is one of the primary complications that can arise after thyroidectomy. Depending on its duration, severity and onset, hypocalcemia can vary from an asymptomatic biochemical abnormality to a life-threatening disorder.

"Low vitamin D levels have now been shown to increase this risk, even in the setting of normal post-operative parathyroid hormone levels," notes study senior author Michael Singer, M.D., Director, Division of Thyroid & Parathyroid Surgery in the Department of Otolaryngology-Head & Neck Surgery at Henry Ford.

"Providing vitamin D supplementation to these patients prior to surgery is an easy and inexpensive step to make their surgery safer." The Henry Ford study gathered data from 110 patients who underwent thyroidectomy at Henry Ford Hospital between January 2013 and December 2013. All patients were operated on by Dr. Singer.

Patients were included in the study if they were undergoing [thyroid surgery](#) for the first time in the surgeons' practice. Patients had surgery for both benign and malignant disease. Their levels of vitamin D, serum calcium, ionized calcium and parathyroid hormone levels were assessed prior to surgery.

Among the study participants, 40 percent were found to be vitamin D deficient, a finding consistent with reported overall prevalence of this problem in the U.S.

The [patients](#) who were found to have low levels of vitamin D were prescribed the vitamin D supplementation and completed the course prior to surgery.

Provided by Henry Ford Health System

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