CALCIUM SUPPLEMENTS MAY INCREASE THE RISK OF KIDNEY STONE RECURRANCE

Highlights

- Diets rich in calcium decrease the risk of kidney stone recurrence, but calcium supplements may have the opposite effect.
- Research that investigated the effects of calcium supplements in kidney stone formers will be presented at ASN Kidney Week 2015 November 3–8 at the San Diego Convention Center in San Diego, CA.

San Diego, CA (October 13, 2015) — Calcium supplements may increase the risk of kidney stone recurrence, according to a study that will be presented at ASN Kidney Week 2015 November 3–8 at the San Diego Convention Center in San Diego, CA.

While eating foods rich in calcium has protective effects against kidney stones, the effect of supplementation with calcium and vitamin D on the risk of kidney stone formation remains unclear. To investigate, Christopher Loftus, MD candidate (Cleveland Clinic Lerner College of Medicine) and his colleagues reviewed the 24-hour urine collections and CT imaging scans from patients at their institution who had a history of kidney stones. They identified 6050 patients with a history of kidney stones by imaging scans, 2061 of whom had 24-hour urine collections before and after starting supplementation. A total of 1486 patients were supplemented with calcium, 417 with vitamin D only, and 158 with no supplementation.

Patients who took calcium supplements had lower total calcium and oxalate (which are components of kidney stones) in their urine while blood levels were unaffected. However, these patients also had a faster rate of kidney stone growth suggesting that the mechanism of calcium supplementation on stone formation may not be straightforward. Vitamin D supplementation also decreased urinary calcium excretion as well as stone growth, suggesting that it may help prevent the risk of stone formation.

“While taking supplemental calcium has associated positive effects, these results suggest that supplemental, as compared with dietary, calcium may worsen stone disease for patients who are known to form kidney stones,” said Loftus.
Studies: “Effects of Calcium and Vitamin D Supplementation on Known Stone Formers” (Abstract FR-PO944)

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ASN Kidney Week 2015, the largest nephrology meeting of its kind, will provide a forum for more than 13,000 professionals to discuss the latest findings in kidney health research and engage in educational sessions related to advances in the care of patients with kidney and related disorders. Kidney Week 2015 will take place November 3–8, 2015 in San Diego, CA.

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