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# Gut Bacteria Found to Decrease Likelihood of Stone Recurrence

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Intestinal colonization with *Oxalobacter formigenes* bacteria may reduce the risk of **urinary stone** recurrence, data show.

Roswitha Siener, MD, of the University Stone Centre, Department of Urology, University of Bonn, Germany, and colleagues studied 37 calcium oxalate stone formers, of whom 11 tested positive and 26 tested negative for *O. formigenes*, a Gram-negative anaerobic bacterium that degrades oxalate in the intestinal tract. Patients provided 24-hour urine samples on both a self-selected and standardized diet. Urinary oxalate excretion did not differ significantly on the self-selected diet but, under controlled standardized conditions, was significantly lower in *O. formigenes*-positive than in *O. formigenes*-negative patients, the researchers reported online ahead of print in *Kidney International*.

Intestinal oxalate absorption, which the investigators measured using radiolabeled oxalate, was similar in both patient groups. Plasma oxalate concentrations were significantly higher in non-colonized than in colonized subjects (5.79 vs. 1.70  $\mu\text{mol/L}$ ). *O. formigenes* colonization was significantly inversely associated with the number of stone episodes.

“Our findings suggest that *O. formigenes* lowers the intestinal concentration of oxalate available for absorption at constant rates, resulting in decreased urinary oxalate excretion,” the authors concluded. “Thus, dietary factors have an important role in urinary oxalate excretion. The data indicate that *O. formigenes* colonization may reduce the risk of stone recurrence.”

