STONES

An apple a day might keep the urologist away

A diet that helps to lower blood pressure—rich in fruit, vegetables, nuts, legumes, dairy products, and grains, but low in red meat and sweetened beverages—might also help to ward off kidney stones by increasing urinary output and citrate content, according to the results of a study published in the *Clinical Journal of the American Society of Nephrology*.

Eric Taylor and colleagues investigated the effect of this diet on urinary excretion of lithogenic factors by analyzing the composition of 24 h urine samples. The study population comprised a subgroup of 3,426 participants from the Health Professionals Follow-up Study and the Nurses' Health Studies I and II. The researchers had previously demonstrated that, in these three large cohorts, adherence to a Dietary Approaches to Stop Hypertension (DASH)-style diet was associated with a decreased risk of developing kidney stones.

In the current study, Taylor and co-workers found that a DASH-style diet was associated with an increased urinary output, independent of fluid intake. "We speculate that higher urinary volumes were, at least partly, a result of the higher food water content," they write. Taylor's team also reported that a high dietary intake of fruit and vegetables was linked to increased urinary citrate levels and raised urine pH.

"Urinary citrate [probably] inhibits crystal agglomeration, the process whereby calcium oxalate crystals combine to form a stone," the researchers report. They also point to the possibility of "unidentified stone inhibitors in dairy products and/or plants".

Diet is well known to influence health, but this new research may further elucidate the relationship between diet and urolithiasis. The researchers now call for a randomized trial to examine the effect of a DASH-style diet on kidney stone recurrence.

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