

Making sense of dietary calcium and urinary stone disease

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The regulation of dietary and supplemental calcium intake in relation to urinary stone disease is not well understood (1). For instance, why do most patients with primary hyperparathyroidism with markedly increased serum and urinary calcium not have a history of urinary stone disease? There must be other factors involved in stone formation. Calcium stone formers have traditionally been classified by their 24-hour urine collections to be hypercalciuric (>4 mg/kg), hyperuricosurics (>600 mg for women; >750 mg/24 h urine for men), hyperoxaluric (>40 mg/24 h urine) and/or hypocitraturic (<320 mg/24 h urine). These defects can occur by themselves or as a part of a constellation of abnormalities. Generalized dietary stone recommendations include a low sodium intake, limiting high sodium-containing foods, limiting the frequency of eating out, including and especially at fast food restaurants, limiting many frozen foods and the salt shaker at the table. Additionally, patients should drink adequate volumes to ensure that they void 1.5-2.0 liters per day. Calcium intake on the other hand is not well understood by many urologists, primary care physicians, and the lay press. It is

assumed that if one has a calcium-based stone one should decrease their calcium intake. It is now well studied that stone formers with the lowest dietary calcium intake have the highest stone recurrence rates. Calcium stone formers in general should not decrease their dietary calcium intake. This should be the standard recommendation for our calcium stone formers.

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Footnote

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