



# Citrate Replacement Guidelines for Kidney Stone Formers

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## Why do I need to take in more citrate?

Citrate is a compound produced by the human body, as well as absorbed from the diet. It complexes with calcium in urine and hinders calcium crystallization. As such, citrate is a potent inhibitor of urinary stone formation. In many stone-formers, a low level of citrate is a big part of the problem. If your doctor has told you that your 24-hour urine collection revealed low levels of citrate, then we recommend citrate supplementation.

## How do I get more citrate?

Pharmaceutical preparations exist for citrate therapy. If you and your doctor decide on one, he will provide you with a prescription.

Alternatively, you can drink lots of citric-containing juice every day. Beverages high in citrate content (in decreasing order) include: lemon, raspberry, grapefruit, cranberry, orange, and pineapple juice. As an example, 3 ounces (2 tablespoons = 1 ounce) of reconstituted lemon juice (mixed with water and sugar to taste if desired) contains 63 mEq of citrate.

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