

# Gout drug benefits kidney disease patients

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A drug commonly used to treat gout may help maintain kidney disease patients' health, according to an analysis appearing in an upcoming issue of the *Clinical Journal of the American Society of Nephrology (CJASN)*. The research is the first to show that allopurinol treatment in patients with chronic kidney disease (CKD) decreases inflammation, slows the progression of kidney disease, and reduces patients' risk of experiencing a cardiovascular event or being hospitalized.

Allopurinol is a drug used primarily to treat individuals with excess [uric acid](#) in their blood (hyperuricemia). (The agent inhibits an enzyme involved in the production of uric acid.) Hyperuricemia can lead to gout and, in extreme cases, [kidney failure](#). Elevated uric acid levels in the blood may also increase one's risk of developing hypertension and [heart disease](#). Patients with CKD—who most often die from heart disease—often experience hyperuricemia because of decreased uric acid excretion in the urine; however, studies have not looked at the benefits of allopurinol in these individuals.

To investigate, Marian Goicoechea, PhD, Jose Luño, MD (Hospital General Universitario Gregorio Marañón, in Madrid, Spain) and their colleagues conducted a prospective, randomized trial of 113 CKD patients who received either allopurinol (100 mg/day) or who continued taking their usual therapy. The researchers assessed kidney disease progression, cardiovascular events (such as heart attacks), and hospitalizations among patients in the study over two years.

The blood levels of uric acid and C-reactive protein (a marker of

[inflammation](#)) significantly decreased in patients treated with allopurinol. In the control group, kidney function declined after two years, but in the allopurinol-treated group, kidney function improved. Allopurinol treatment slowed down kidney disease progression regardless of patients' age, gender, and diabetes status; their blood levels of uric acid and C-reactive protein; the amount of protein patients lost in the urine; and the other types of medications patients used. In addition, compared with usual therapy, allopurinol treatment reduced the risk of cardiovascular events by 71% and the risk of hospitalizations by 62%.

While allopurinol has significant potential benefits for CKD patients, "these results have to be confirmed in larger prospective trials and are the basis for a hypothesis that still needs to be tested," the authors wrote.

**More information:** The article, entitled "Effect of Allopurinol in Chronic Kidney Disease Progression and Cardiovascular Risk," will appear online on June 10, 2010, [doi:10.2215/CJN.01580210](https://doi.org/10.2215/CJN.01580210).

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