Prevalence of kidney stones doubles in wake of obesity epidemic

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The number of Americans suffering from kidney stones between 2007 and 2010 nearly doubled since 1994, according to a study by researchers at the University of California, Los Angeles (UCLA) and RAND.

"While we expected the prevalence of kidney stones to increase, the size of the increase was surprising," says Charles D. Scales, Jr., MD, a Robert Wood Johnson Foundation/U.S. Department of Veterans Affairs Clinical Scholar in the departments of urology and medicine at the David Geffen School of Medicine at UCLA. "Our findings also suggested that the increase is due, in large part, to the increase in obesity and diabetes among Americans."

The study entitled, "The Prevalence of Kidney Stones" in the United States is being presented today at the 2012 American Urological Meeting in Atlanta, Georgia and will appear in the July print edition of the journal *European Urology*.

This is one of the first studies to examine the new data from the National Health and Nutrition Examination Survey (NHANES) that was collected from 2007 to 2010. NHANES is a program of studies within the Centers for Disease Control and Prevention to assess the health and nutritional status of adults and children in the United States.

Scales and his colleagues reviewed responses from 12,110 people and found that between 2007 and 2010, 8.8 percent of the U.S. population had a kidney stone, or one out of every 11 people. In 1994 the rate was

one in 20. No data about the national prevalence of kidney stones in the United States were collected between 1994 and 2007.

Because the survey also asks about other health conditions, and includes measurement of height and weight, the researchers were able to identify associations between kidney stones and other health conditions. The results suggest that obesity, diabetes, and gout all increase the risk of kidney stones.

The authors assert that these findings have important implications for the public as well as health care providers. "People should consider the increased risk of kidney stones as another reason to maintain a healthy lifestyle and body weight," says Christopher S. Saigal, MD, MPH, senior author, principal investigator within RAND Health for the Urologic Diseases in America project and associate professor of urology, David Geffen School of Medicine at UCLA. "But physicians need to rethink how to treat, and more importantly, prevent kidney stones."

Currently, the primary approach to treating patients with kidney stones is to focus on the stones. Yet helping patients maintain a healthy diet and body weight can reduce the number of patients with kidney stones.

"Imagine that we only treated people with heart disease when they had chest pain or heart attacks, and did not help manage risk factors like smoking, high cholesterol, or high blood pressure," says Scales. "This is how we currently treat people with kidney stones. We know the risk factors for kidney stones, but treatment is directed towards patients with stones that cause pain, infection, or blockage of a kidney rather than helping patients to prevent kidney stones in the first place."

In an accompanying editorial that will also appear in the journal, Brian Matlaga, MD, MPH, associate professor of urology at the Johns Hopkins University School of Medicine, writes that the cost of care for this

disease is enormous, and there is no indication that the coming years will see any improvement in this trend. He also warns that, since approximately 10 percent of the population has the disease, a greater emphasis on prevention is imperative.

Provided by University of California, Los Angeles