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Rising Temperatures and Kidney Stones

The recent warm weather reminds us that summer days aren't too far away, and as the temperature and humidity rise so does the likelihood of kidney stones. As many as one in ten Kane County residents have a history of nephrolithiasis and the incidence continues to increase. In the summer, your body tends to lose more water from sweat and other sources which can lead to dehydration.

Dehydration results in a more concentrated urine with higher levels of calcium, oxalate, and other minerals which can promote kidney stone formation.

The most common presenting symptom among patients with kidney stones is severe pain. The pain typically arises in the back or flank and may radiate to the lower abdomen or even the groin. Nausea, and perhaps vomiting, often accompanies the pain. In cases where there is an infection with the stone, there may be a high fever. Typically, an abdominal x-ray or CAT scan is performed to diagnose the kidney stone.

Fortunately, many small kidney stones will pass through the urinary tract and to the outside world over the course of a few days. Larger kidney stones, or smaller ones which may be incapacitating, can be removed using minimally invasive procedures such as shock wave lithotripsy or endoscopy which can be performed on an outpatient basis allowing patients to get back to work or school with as little interruption as possible.

Once the stone is gone it is important to employ a few tactics to prevent future kidney stones. The mainstay is to increase water intake to dilute urine as much as possible to lower the urinary calcium concentration. Adding citrate to your diet, for example by squeezing a lemon wedge into a glass of water, will help prevent stones from crystallizing as well. Finally, limiting dietary sodium and animal protein is also beneficial. One common myth that should be dispelled is the notion that stone formers need to limit dietary calcium. To the contrary, avoiding calcium may result in bone disease such as osteoporosis and in some individuals may paradoxically increase your tendency to form new stones.

The good news is that in nearly all patients with kidney stones there is a metabolic cause. That means that with a little detective work we can determine why you make kidney stones and what you can do to prevent more from forming in the future. To start, the kidney stone itself can be analyzed to determine the mineral composition. Following

this, basic blood work and a 24 hour urine collection are obtained to complete the metabolic picture. By analyzing the daily urinary excretion of certain proteins, salts, and minerals we can recommend additional simple dietary changes that will help prevent new stones from forming. In many cases there may be a medication that is necessary as well. In some instances, the evaluation may point to a metabolic abnormality that may require additional interventions such as surgical removal of the parathyroid gland.

So as the mercury rises this summer, be sure to kick back with a tall glass of lemonade and rest assured that you've got these kidney stones beat.