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"Why do I urinate so often?"

Urination problems, many not requiring surgery or medications, are probably the most common patient issue we hear as urologists. Going to the restroom to urinate "too often"-- occasionally with an urgent feeling-- can definitely impair one's quality of life. More than one trip to the bathroom at night, for many people, is a bother, and can contribute to insomnia and poor daytime performance. There is, however, no "set" definition of what constitutes "too often"—you have to be the judge of what bothers you.

Despite common mythology, many cases of "urinating too often" are <u>not</u> related to problems in the urinary tract. Recall the kidneys filter the blood. The amount of urine produced by otherwise healthy kidneys is related to (1) the amount of volume in the system (a reflection of overall fluid intake) , (2) use of "drugs" that force the kidneys to produce more urine than they otherwise would (e.g., diuretics such as thiazides and furosemide, caffeine, and alcohol) and (3) certain bodily physiologic functions, to some extent hormonal-- these are involved in regulating how much excess fluid is "squeezed" through the kidneys from the blood into the urine--or recaptured from the kidneys back into the bloodstream for inadequate fluid in the body's vasculature. The kidneys are truly sophisticated organs and are amazingly efficient at preserving the right amount of fluid for minute-to-minute bodily

functions—as well as other functions in eliminating "wastes". Urinating too often seldom means the kidneys are malfunctioning.

Certain non-urologic disease states such as diabetes mellitus and the far rarer diabetes insipidus can inappropriately cause the kidneys to produce urine far too dilute and voluminous for the amount of fluid in the system, leading to frequent/large urinations, dehydration, and excess thirst. Patients with congestive heart failure may pool fluids outside the vasculature while mobile during the day with low urine production; only to have far greater blood flow to the kidneys and elimination of excess bodily fluids (and therefore frequent voiding) at night.

Keeping a diary of all fluid intake and all urine production (as well as listing use of "drugs" as mentioned above) can help us to determine if your urinary frequency is related to the kidney's urine production or more likely a problem with the lower urinary tract, especially the bladder (and prostate in men). A diary showing frequent and small voids points us toward problems with the lower urinary tract. Calculating your daily urine production, a high total nocturnal volume of urine compared to (usually much higher) daytime production of urine suggests problems with the way the kidneys are filtering and the signals they are receiving (hormonal and otherwise) at night. For example, it is felt that sleep apnea causes release of a hormone which results in watery/voluminous urine with frequent but large volume/easy voids at night.

For the patient with frequent/small voids, with or without urgency, associated symptoms such as slow flow may point us in the direction of lower urinary obstruction by, e.g., prostate enlargement. A bladder which contracts poorly, sometimes linked to neurologic disease, is another (non-obstructive) cause. Frequency with gross or microscopic blood in the urine could suggest certain prostate diseases or even rarer forms of bladder cancer which infiltrate and stiffen the bladder lining. Frequency with pain are indicators of infection until proven otherwise--but may be from other causes including lower ureteral (originating in the kidney) stones, bladder stones, bladder cancer, and vague types of chronic cystitis such as interstitial cystitis (chronic bladder pain syndrome). Frequency with urgency and low amounts of retained urine in the bladder can sometimes be traced to a common condition now called "overactive bladder". The need to "go often" is seen in patients whose bladder is neurologically irritable (occasionally in spinal disease and post strokes) and in those who, for whatever reason, have high amounts of residual urine and are "peeing the tip of the iceberg".

The role of the urologist is to take a good history, do a thorough directed exam, look at the urine, and generate some ideas about the (quite varied) causations of frequent urinating. A "one solution mentality" obviously will miss the mark in most cases. Additional testing, including urine cultures, urine tests for cancer

detection, blood tests, cystoscopy (looking inside bladder), non-invasive office bladder scanning, CT scans and urodynamics (physiologic testing of bladder function) may all be needed at times in more difficult cases; but these should not "automatically" be done.

We do, fortunately, have something to offer most patients with these problems so as to reduce 'bother" and improve quality of life; and on occasion, detect a serious condition. "Urinating too often" is in the mind of the patient--and it is up to the doctor, especially the urologist, to make the mind-body connection.