OVERACTIVE BLADDER – SENSORY URGENCY

Overactive Bladder is a term used to describe a bladder condition that causes more frequent and urgent urination.

The urinary tract begins with the kidneys. The kidneys, one on each side, sit high in the upper abdomen partially underneath the rib cage. They filter the blood to extract excess waste products and fluid to form the urine. Urine once formed in the kidneys travels through a tube on each side, called the ureter, down to the bladder. Urine is constantly being made by the kidneys and being transported through the ureters into the bladder. The bladder stores urine until full and then empties to the outside through the urethra. The urinary system is the same in both men and women from the level of the kidneys to the bladder. In men, the prostate, which is a gland that is part of the reproductive system, forms the first part of the urethra.

The sensation of the need to urinate originates in the bladder. As the bladder fills, sensors in the bladder, which are like a thermostat, send a signal that it is time to urinate. Typically, the bladder can hold 8-14 ounces of urine. Depending on fluid intake, it is typical for a person to void every 2-3 hours during the day, and often once at night. During times of increased fluid intake, the kidneys make more urine, the bladder fills more frequently and a person needs to urinate more often.

Different conditions can affect the bladder which alter the urinary pattern. Urinary symptoms indicating a change in bladder function include frequency (which is the need to urinate more often), urgency (the need to urinate as soon as one gets the urge), nocturia (the need to urinate frequently at night), and post void fullness (the sensation of the need to void further after just having urinated). Burning and stinging with urination may be present as well. A variety of conditions can cause the above symptoms including infection, stone, tumor, and rarely even neurologic conditions. One of the more common reasons for frequency and urgency is the age related loss of bladder elasticity. As inevitable as gray hair and glasses, the fibers that make up the bladder change over time and become less elastic. Normally, as the kidneys make more urine, the bladder can continue to stretch to hold the increasing volume of urine. However, when the bladder is less elastic, it can no longer stretch further to hold the extra urine. It reaches a certain point, and then it wants to empty. As the bladder storage capacity decreases, the patient experiences frequency and urgency. Very often, however, the onset of frequency, urgency may be due to nonspecific changes which occur in the bladder. In this circumstance the sensors in the bladder are overactive and send the signal of the need to urinate too often. In addition, the sensors may send a signal that the bladder “still feels full” even though it has just emptied.

When bladder symptoms are present, evaluation usually begins with a physical exam where the doctor palpates the abdomen to make sure that there are no masses or enlargements of abdominal organs. In females, a pelvic examination may be done to see if there is any enlargement of the structures adjacent to the bladder. In men, a digital rectal examination is done to feel the surface of the prostate to exclude the presence of prostatitis (infection or inflammation of the prostate) or prostate cancer. The urine is checked to determine if any white blood cells or red blood cells are present. A urine culture may be done to exclude the possibility of infection in the bladder. In men, a PSA blood test may be done to check for prostate cancer.
In some cases further evaluation of the urinary system is indicated. The upper urinary system may be evaluated with either a renal sonogram or CT scan. A sonogram or ultrasound study uses sound waves to make a picture of the kidney. A CT Scan may include the use of contrast (dye) which is filtered through the kidneys and ureter to cause them to show up on an x-ray. Both of these studies can provide indirect information about the bladder as well.

In some cases the bladder and urethra may be studied by cystoscopy. Cystoscopy refers to the direct visual inspection of the bladder and urethra. This is carried out by inserting a small fiberoptic catheter into the urethra and bladder, which allows direct visualization of these structures. This is carried out under local anesthetic in an examination room in the office.

When other conditions have been excluded (for example, infection, stone, prostate trouble in men) and findings are consistent with overactive bladder (sensory urgency), several measures are available for treatment. Sometimes medications may be used to “dampen” the signals being sent by the sensors in the bladder. Medications used for this purpose include Detrol, Ditropan, Enablex, VESICare, Oxytrol, Sanctura, Urelle and Pyridium. A low dose of a mild antibiotic may be prescribed to be taken on a daily basis to prevent infection from developing in the bladder. Frequently used antibiotics include trimethoprim (Trimpex) and nitrofurantoin (Macrobid). Additionally, a special diet may be recommended to avoid food and beverages which are irritants to the urinary system. A separate dietary list is available which indicates foods that can cause irritation to the bladder. Eating foods in the “Foods to Avoid” column does not pose a threat to the patient’s health. However, after eating these foods one may notice that urinary symptoms are exacerbated. The patient then needs to choose between avoiding the foods they want to eat or putting up with the symptoms that the foods cause.

In some women, symptoms of overactive bladder may sometimes occur in association with narrowing of the urethra. The urethra can be dilated in the office by passing a series of catheters to dilate or stretch the urethra. Sometimes urethral dilation by itself can result in significant symptom improvement. At times a medication called Argyrol may be instilled into the bladder. This medication has a soothing effect on the lining of the bladder. Urethral dilation or Argyrol installation may provide symptom relief for a period of time. If symptoms recur subsequently, these measures can be repeated.

The primary goal of evaluation is to confirm that findings are due to overactive bladder (sensory urgency) and to exclude other possible causes of the above symptoms. Once the diagnosis is confirmed, then the main goal is symptom control. Sometimes symptoms can be improved after several weeks, other times it may take a longer period of time. With the above measures many patients can notice some benefit. More importantly they can be reassured that their symptoms are a sign of an underlying disorder that poses a threat to their health.