

Glossary

Our glossary defines urological terms in plain English

A

Abdomen – an anatomical term that refers to the area between the chest and pelvis, which contains the bowels and other organs

Adrenal cancer - a cancerous growth of the adrenal gland, often due to spread of cancer from other organs in the body, but can arise primarily from this gland

Ambulatory surgery – surgical procedures that are performed and the patient is able to go home that same day

Anesthetic – a medication used to decrease sensation or pain

Angiomyolipoma (AML) – a rare benign tumor of the kidney that can grow over time and can bleed spontaneously

Antibiotic – a medication used to treat infections by killing or preventing the growth of bacteria

Anticoagulant – a medication that decreases the clotting of blood; “blood-thinner”

Adrenal gland – a small gland (there are two) that sits atop the kidneys and produces important hormones for maintenance of hormone levels, blood pressure, blood sugar and minerals

Adrenalectomy – surgical removal of the adrenal gland

B

Basic Metabolic Panel (BMP) – a blood test that measures electrolytes, glucose and kidney function

BCG – a treatment to delay recurrence and progression of bladder cancer, works by stimulating the body’s immune system to respond to the mycobacteria and in turn kill cancer cells

Benign prostatic hypertrophy (BPH) – a benign (non-cancerous) enlargement of the prostate that can cause problems with urination by blocking the flow of urine from the bladder

BPH medications – the use of medications to relax the muscles of the prostate or shrink its size in order to improve the flow of urine and treat the symptoms of BPH

Bladder catheter – a small tube that is inserted into the bladder to drain the urine

Bladder cancer – a cancerous growth of the urinary bladder, most frequently transitional cell carcinoma

Bladder diary – a record of fluid intake, voiding and episodes of incontinence that a patient will keep at home for several days

Bladder neck contracture – an abnormal narrowing or scar at the opening of the bladder that prevents the easy passage of urine

Bladder outlet obstruction – a blockage at the opening of the bladder that prevents proper drainage of urine

Bladder scan – a diagnostic ultrasound study that evaluates how much urine remains in the bladder

Bladder stones – stones that form in the urinary bladder and are usually due to long standing blockage of the bladder

Biopsy – a procedure in which a sample of tissue is obtained and then examined under a microscope by a pathologist to look for abnormal cells

Bone scan – a diagnostic x-ray study that uses specialized IV radiotracer and a detection device to evaluate the skeleton for suspicion of cancer spread

Brachytherapy – a treatment for prostate cancer that places radioactive seeds into the gland in order to kill the cancer cells

C

Calculi – a technical term for a stone, which is an abnormal crystallization of minerals in the body

Cancer – an abnormal group of cells in the body that can grow and spread to other

areas of the body and may endanger life

Cancer stage – a description of the location of cancer cells in the body, based on a biopsy or surgical specimen, examination and imaging studies

Cancer grade – a description of the aggressiveness of a group of cancer cells, based on the evaluation of a biopsy or surgical specimen by a pathologist

Carcinoma in situ (CIS) – high grade bladder cancer that may appear as a red patch on the bladder surface and can be indicative of aggressive disease

Catheter – a tube used to drain fluids from the body, in urology this refers to a tube placed into the bladder to drain urine

Chemotherapy – a broad term that means the treatment of disease with drugs or medications, usually referring to cancer therapy

Circumcision – surgical removal of the foreskin from the penis

Clean intermittent catheterization (CIC) – a technique where a patient or caregiver inserts a catheter into the bladder temporarily to drain the urine, also known as self catheterization

Complete Blood Count (CBC) – a blood test that measures blood count (red and white blood cells) and platelets

Conscious sedation – IV medications are used to place patients in a sleep-like state with monitoring, to allow a procedure to be performed with minimal discomfort

Contrast – a special liquid used in x-ray studies to help clearly identify structures of the body

Cryotherapy – a tool used in the treatment of cancer in which specialized needles are placed into the targeted area and frozen in order to kill the cancer cells

Cryptorchidism – a condition in males where the testicle fails to reach the normal position within the scrotum, also known as an undescended testicle

Cystogram - a diagnostic x-ray study that images the bladder

CT scan - computerized tomography is a diagnostic imaging procedure that uses a combination of X-rays and computer software to produce detailed images of the body

Cystitis – a general term referring to an inflammation of the bladder

Cystoscope – a small telescope like device used to examine the inside of the urethra,

prostate (in males) and bladder

Cystoscopy – a procedure in which a cystoscope is used in order to examine the urethra, prostate (in males) and bladder

Cystourethrogram – a diagnostic x-ray study that images the bladder and the urethra

D

Detrusor – the muscles of the bladder, which empties urine from the bladder when they contract

Dietary management of stones – a treatment method to prevent stone growth or new stone formation by making changes in a patient's diet

Digital rectal examination (DRE) – insertion of the gloved and lubricated finger into the rectum to evaluate the surface of the prostate for abnormalities

Dysuria – difficult or painful urination

E

Ejaculate – the fluid that is produced from a man's penis at the time of sexual climax (orgasm), containing sperm (if the patient has not had a vasectomy)

Enuresis – a technical term for bedwetting, which is the involuntary loss of urine during sleep in a person old enough to have bladder control

Epididymis – a coiled tube attached to the back of the testicle that stores sperm and then attaches to the vas deferens (located in the scrotum)

Epididymitis – inflammation of the epididymis

Erectile dysfunction (ED) – a medical condition in which a man is unable to have a sufficiently rigid penis for intercourse, also known as impotence

External beam radiotherapy (EBRT) – a therapeutic technique that uses radiation delivered through a specialized machine for the treatment of cancer

Extracorporeal Shock Wave Lithotripsy (ESWL) – a non-surgical treatment for kidney or ureteral stones that uses focused sound waves to break up the stones

F

Fistula – an abnormal channel between two organs (for example, bladder and colon)

Foley catheter – a type of bladder catheter that remains in the bladder with the use of a small balloon

Frequency – the desire to urinate more often than normal

G

Gleason score – a system used by pathologists to grade prostate cancer identified from a biopsy or surgical specimen, can range from 1 to 5

Gleason sum – the additive value of the two most frequently seen prostate cancer cell groups in a biopsy or surgical specimen (ex. 3 + 3)

Gross hematuria – the abnormal presence of blood in the urine and the urine is visibly pink or red

H

Hematoma – a bruise or accumulation of blood in soft tissues

Hemospermia – blood in the semen

Hematuria – the abnormal presence of blood in the urine

Hematuria protocol CT scan – a CT scan that produces detailed images of the body, particularly looking at the kidney, ureters and bladder for abnormalities, done with IV contrast

Hernia – part of an internal organ abnormally pushing through the wall of the cavity that contains it (ex. the bowel protruding through the abdominal wall)

Hesitancy – difficulty beginning urination

High density radiation therapy – a minimally invasive treatment for prostate cancer that delivers localized radiation therapy through a series of temporarily placed needles

History and physical – the evaluation in a physician office that includes a review of the patient's medical problems, prior history and a physical examination

Hormonal ablation therapy – a treatment for prostate cancer in which the male hormone testosterone is removed from the system either with an injected medication or by surgical removal of the testes

Hydrocele – swelling of the scrotum due to a collection of clear fluid around the testicle

Hydronephrosis – dilation or swelling of the first part of the ureter, usually due to a blockage downstream

Hypogonadism – abnormally low levels of male hormone

Hypospadias – a common birth defect in males where the opening of the urethra is on the underside of the penis rather than at the tip

I

Incontinence – the involuntary loss of urine

Infertility – the decreased ability or inability to conceive and have children

Intravesical therapy – a chemical agent is placed into the bladder via a catheter in order to treat disease of the bladder

IV – intravenous, a tiny tube is placed into a vein for the delivery of medication or fluids directly into the circulation

IV contrast – given through an IV, a special liquid used in x-ray studies to help clearly identify structures of the body

J

K

Kidney cancer – a cancerous growth of the kidney, most frequently a renal cell carcinoma, but other types are frequently seen

Kidney stones – crystals that form in the kidneys, are usually made of calcium and can cause significant pain if they block part of the kidney or ureter

Kidney ultrasound – a diagnostic study that uses sound waves to image the kidney and detect abnormalities

KUB – a diagnostic x-ray that will show many stones, by looking at the kidneys, ureter, and bladder

L

Laparoscopic radical nephrectomy – the laparoscopic removal of the entire kidney, surrounding fatty tissue, part of the ureter and adrenal gland (in some cases), done as treatment for kidney cancer

Laparoscopic cryotherapy – a laparoscopic procedure that is performed as cancer treatment to kill the targeted cancer cells by freezing them with specialized needles

Laparoscopic surgery – a surgical technique that fills the abdomen with air and uses specialized instruments that allow the operation to be performed through a series of small incisions

Ligate – to bind or close, usually refers to closing a tube in the body with a suture or clip

Lithotripsy – a technique for breaking up stones of the kidney or ureter by focusing shock waves or other energy on the stone

Lumen – the inner or hollow part of a tubular structure (ex. an artery)

Lymph nodes – small oval or round pieces of tissue that are located adjacent to blood

vessels and work as part of the body's filter and immune system, may be a site where cancer spreads to

M

Medical management of stones – a treatment method to prevent stone growth or new stone formation by using a variety of medications

Medical oncologist – a doctor that specializes in the non-surgical treatment of cancer, typically with the administration of chemotherapy

Microscopic hematuria – the abnormal presence of blood in the urine, but can only be seen under the microscope

Minimally invasive – a treatment method that should accomplish the same outcome as traditional surgery for a given condition, but causes less patient discomfort and quicker recovery

MRI imaging – Magnetic resonance imaging scan is a diagnostic imaging technique that uses sound waves and powerful magnets to produce detailed images of the body

MRI scan – Magnetic resonance imaging scan is a diagnostic imaging technique that uses sound waves and powerful magnets to produce detailed images of the body

N

Neurogenic bladder – a bladder in which the normal nerve signals from the brain and spinal cord have been disrupted because of a neurologic disease or injury

Neuromodulation – a technique used to change abnormal nerve signals to the bladder by the implantation of a specialized device

Nephrectomy – surgical removal of a kidney

Nephrolithiasis – a technical term for kidney stones

Nephroureterectomy – surgical removal of the kidney and the entire ureter attached to that kidney

Nephrologist – a doctor that specializes in the non-surgical treatment of kidney disease

and high blood pressure

Nerve block — the administration of medication to a targeted area of nerves to produce anesthesia for that area of the body (for example, testicular cord block)

Nocturia – night-time urination

O

Oncologist – a doctor that specializes in cancer treatment

Open stone surgery – a surgical procedure to treat very large kidney stones by making an incision and removing the stone

Open nephrectomy – surgical removal of the kidney done through a traditional incision overlying the kidney (contrasted with laparoscopic nephrectomy)

Open simple prostatectomy – a surgical procedure for the removal of an enlarged prostate that blocks the urinary bladder, not performed as treatment for cancer (contrasted with radical prostatectomy)

Orchitis – inflammation of the testicle

Orchiectomy – surgical removal of a testicle

Orchiopexy – a surgical procedure typically performed in children with improperly descended testicles, to fix the testicle in the scrotum

Outlet incompetence – weakness or insufficient function of a group of muscles that normally close to store bodily fluids (for example, bladder outlet incompetence)

Overactive bladder (OAB) – the presence of two of three symptoms in patients: urinary frequency, urinary urgency or urge incontinence

P

Partial cystectomy – the surgical removal of a portion of the urinary bladder, done as treatment for some bladder cancers or some bladder diverticula

Partial nephrectomy – surgical removal of a portion of the kidney, done as treatment for some kidney cancers

Pathologist – a doctor that specializes in the evaluation of tissue and fluid samples from the body and what sort of disease is present in these samples

Pelvic floor muscle rehabilitation (PFMR) – Pelvic floor muscle rehabilitation is a non-surgical treatment to help re-habilitate the muscles of the pelvis that then help with bladder and bowel control

Pelvic lymph node dissection – a surgical procedure for the removal of lymph nodes from the pelvis, typically done as part of an operation for cancer

Pelvic organ prolapse – the abnormal dropping of the organs of the female pelvis

Pelvis – the anatomic term for the part of the body that the legs connect to and supports the spine, contains the bladder, some of the bowels and the reproductive organs in women

Penile cancer – a cancerous growth of the penis, most often a squamous cell cancer

Penile doppler – a diagnostic test used in the evaluation of erectile dysfunction, special sound waves (ultrasound) are used to measure the blood flow to the penis

Penile injection therapy – a treatment for erectile dysfunction in which medication is injected into the penis to produce an erection

Penile prosthesis – a surgical treatment for erectile dysfunction in which a device is implanted in the penis that can be activated to generate an erection

Percutaneous nephrolithotripsy (PCNL) – a surgical procedure for treatment of large kidney stones, where a small incision is made over the kidney and specialized instruments used to fragment the stone

Perineum – the area between the scrotum and anus in men and between the vagina and anus in women

Peyronie's disease – the presence of scar tissue in the penis that can cause an abnormal bend or indention in the penis at the time of erection

Phimosis – a condition where the foreskin is narrowed and is unable to be completely pulled back behind the head of the penis

Post-void residual – the amount of urine remaining in the bladder after voiding (ie. emptying)

Probiotics – a variety of treatments used to re-establish or maintain normal bacteria in the body that then help protect against abnormal bacteria or yeast

Prophylactic antibiotics – a low dose antibiotic taken daily to prevent infection

Prostate - a gland in men that produces secretions for semen, can become enlarged with aging and can also develop cancer (located in the pelvis just below the bladder)

Prostate brachytherapy – a minimally invasive therapy for prostate cancer in which metallic seeds are placed into the prostate in order to deliver radiation therapy and kill the cancer cells

Prostate cancer – a cancerous growth of the prostate, the most common cancer among men in the United States, most often adenocarcinoma

Prostate cryotherapy – a minimally invasive therapy for prostate cancer in which specialized needles are placed into the prostate and the gland frozen in order to kill the cancer cells.

Prostate laser surgery - a minimally invasive therapy for an enlarged prostate that obstructs the bladder, where a portion of the prostate is removed with the use of a specialized laser

Prostate microwave therapy – also known as TUMT, a non-surgical therapy that uses microwaves for the treatment of an enlarged prostate that makes urination difficult

Prostate ultrasound – a diagnostic study that images and measures the prostate with specialized sound waves by placing an ultrasound probe in the rectum

Prostatitis – an inflammation or infection of the prostate that can cause pelvic pain and difficulty with urination.

PSA – prostate specific antigen is a blood test that when elevated can signify an enlarged, inflamed or cancerous prostate

PSA percent free – the percentage of PSA in the blood that is not attached to proteins, can help determine if a patient needs prostate biopsy

Pyelonephritis – infection of the kidney

Q

Quality of life – a subjective measurement of a patient's level of function and overall

status

R

Radiation oncologist – a doctor that specializes in the non-surgical treatment of cancer by using radiation therapy

Radiation therapy – a treatment for cancer that uses targeted doses of radiation to destroy the cancer cells

Radical cystectomy – removal of the entire bladder, surrounding fatty tissue and adjacent lymph nodes, done as treatment for invasive bladder cancer

Radical nephrectomy – removal of the entire kidney, surrounding fatty tissue, part of the ureter and adrenal gland (in some cases), done as treatment for kidney cancer

Radical prostatectomy – surgical removal of the prostate and soft tissue immediately surrounding it, done as treatment for prostate cancer

Radical perineal prostatectomy – a surgical technique for radical prostatectomy that approaches the prostate through an incision in the perineum (between the anus and scrotum)

Radical retropubic prostatectomy – a surgical technique for radical prostatectomy that approaches the prostate through an incision just below the belly button

Recurrent infection – more than two urinary tract infections in a six month period or more than three in twelve months

Renal cell carcinoma – the most common type of kidney cancer (that has not spread from another organ)

Renal cyst – an abnormal fluid filled sac in the kidney, frequently seen in older patients

Renal insufficiency – the kidneys are not functioning perfectly, can be due to a variety of reasons

Renal ultrasound – a diagnostic study that images the kidney with specialized sound waves

Renal cryotherapy – a minimally invasive technique to treat kidney tumors by freezing a portion of the kidney in order to kill the cancer cells

S

Scrotum – the structure in males that contains the testicles, epididymides and vas deferens

Self-start antibiotics – a treatment plan for recurring infections where a patient begins a short course of antibiotics when they first begin to have symptoms

Seminal fluid – the fluid that is produced from a man's penis at the time of sexual climax (orgasm), containing sperm (if the patient has not had a vasectomy)

Sitz bath – a method for cleansing the genitals or perineum that may be important in the treatment of recurrent infection

Sling – see [urethral sling](#)

Staging – see [cancer stage](#)

Stone analysis – a laboratory study that analyzes a kidney stone to determine what type it is and what treatment may be most effective

Stone prevention – steps taken to prevent the formation of kidney stones by changes in fluid intake, dietary habits or adding new medication

Stone protocol CT scan – a CT scan that produces detailed images of the body, particularly looking for stones in the kidney, ureter or bladder (does not use IV contrast)

Stress incontinence – the loss of urine secondary to an increase in intra-abdominal pressure (ex. cough, sneeze, lifting heavy object)

Stricture – the abnormal narrowing of a passage or channel

Surveillance cystoscopy – cystoscopy of the bladder performed at regular intervals to monitor for the recurrence of bladder cancer

Suture – a stitch that is placed during a surgical procedure

T

Testicular cancer – a cancerous growth of the testicle; a variety of types are seen and

may arise primarily from the testicle or may be due to spread of cancer from other organs in the body

Testicular torsion – the abnormal twisting of the testicle that disrupts the blood flow to the organ and will lead to its loss if not corrected

Transitional cell carcinoma – also known as urothelial cancer, where the cells of the bladder's inner lining become cancerous and can invade into the adjacent bladder muscle or spread to the lymph nodes if untreated.

Transrectal ultrasound-guided prostate biopsy – a procedure where a sample of the prostate gland is taken after a nerve block has been given, done with a special needle and ultrasound guidance

Transurethral microwave therapy (TUMT) – the technical term for prostate microwave therapy

Transurethral resection of prostate (TURP) – the surgical removal of a portion of the prostate that uses a specialized cystoscope that is passed through the urethra and does not require an incision

Transurethral resection of bladder tumor (TURBT) – the surgical removal of a bladder tumor that uses a specialized cystoscope that is passed through the urethra and does not require an incision

Twenty-four hour urine – a diagnostic study in which a patient collects (at home) their urine output for 24 consecutive hours and this urine is then analyzed in a laboratory

U

Ultrasound – a diagnostic study that uses sound waves to image structures in the body (ex. prostate, kidney)

Undescended testicles – a condition in males where the testicle fails to reach the normal position within the scrotum, also known as cryptorchidism,

Urethra – the tube urine passes through that runs from the urinary bladder to the outside of the body (located in the penis in men and in the pelvis in women)

Urethral bulking agent – specialized material injected into the tissues of the urethra to improve urethral closing and urinary continence

Ureteral obstruction – a general term that refers to blockage of the ureter (may be

secondary to a stone, stricture, or enlarged lymph nodes)

Urethral stricture – a narrowing or scar of the urethra that can slow the normal flow of urine

Urethral suppositories – a treatment for erectile dysfunction in which a pellet of medication is placed into the urethra to produce an erection

Ureter – the tube like structure that urine passes through as it travels from the kidneys down to the bladder (located behind the bowels and next to the spine)

Ureteral stone – a stone that is located in the ureter when passing from the kidney to the urinary bladder

Ureteral stone extraction – a procedure performed with a cystoscope and other instruments, where the stone is removed from the ureter

Ureteral stent – a plastic tube temporarily placed in the ureter that helps the kidneys drain properly

Ureteral stricture – a narrowing or scar of the ureter

Ureteropelvic junction (UPJ) – the area where the collecting system of the kidney (ie. for urine) joins with the first portion of the ureter

Ureteropelvic junction obstruction – a blockage of the Ureteropelvic junction (UPJ), which may be due to a congenital defect or may develop later in life

Ureteroscope – a small telescope like device used to examine the inside of the ureter, often for the treatment of stones in the ureter

Urethral sling – a surgically placed band of tissue or mesh that improves closing of the urethra and urinary continence

Urgency – strong desire to urinate

Urge incontinence – the loss of urine secondary to the strong desire to urinate

Urinalysis – a diagnostic laboratory test that examines the urine for blood, pH, glucose, protein, concentration and other signs of inflammation

Urine culture and sensitivity – a diagnostic laboratory test that evaluates if any bacteria are infecting the urine, their identity and what antibiotics are best to treat them

Urinary bladder – the structure that stores urine after it has been made in the kidneys (located in the pelvis)

Urinary fistula – an abnormal channel that urine flows through (ex. a colovesical fistula is abnormal channel between the colon and bladder)

Urine cytology – a test that evaluates the urine for cancer cells

Urine FISH – a highly specialized test that evaluates the urine for cancer cells (FISH – follicle in-situ hybridization)

Urine flow study – a diagnostic procedure to evaluate the rate of urine flow, decreased can be an indication of bladder obstruction

Urinary retention – a condition where patients are unable to empty their bladder

Urinary symptom score evaluation – a questionnaire used to quantitate a patient's urinary symptoms

Urinary tract – the part of the kidneys that collect urine, the ureters, bladder and urethra

Urinary tract infection – the harmful growth of bacteria, viruses or yeast in the urinary tract that causes illness

Urodynamic testing – a diagnostic test to evaluate the bladder's responsiveness and function for the storage and emptying of urine

Ureteroscopy with stone extraction – a surgical procedure that uses a ureteroscope to directly visualize a stone and a small basket-like device to extract it

Ureteroscopy with laser stone fragmentation - a surgical procedure that uses a ureteroscope to visualize a stone directly and a laser to fragment it into many tiny pieces

V

Vacuum pump – a device for the treatment of erectile dysfunction that works by creating a vacuum to draw blood into the penis and generate an erection

Varicocele – varicose veins in the scrotum, can be a cause of pain or infertility

Vasectomy – a surgical procedure to achieve sterility in a male by removing a portion of the vas deferens and blocking it off

Vas deferens – the tube that sperm travel through on their way from the testicles to the prostate (located in the scrotum and pelvis)

Vasovasostomy – a technical term for vasectomy reversal

Vesicoureteral reflux (VUR) – also known as urinary reflux, is the abnormal flow of urine from the bladder back into the ureter and kidney at the time of bladder emptying

Voiding – the voluntary emptying of the bladder

Voiding cystourethrogram (VCUG) – a diagnostic x-ray study that images the bladder and urethra before, during and after bladder emptying

Voiding dysfunction – a general term that describes a variety of abnormal voiding patterns

W

Watchful waiting – a patient with a condition is closely followed by their physician, but not undergoing active treatment at that point in time

Wilm's tumor – the most common kidney tumor in children, also known as nephroblastoma

X

Xanthogranulomatous pyelonephritis (XGP) – a rare condition where the kidney contains stones, is chronically infected and inflamed, becoming enlarged and functioning poorly