



***Medical terminology Lecture 5***  
***Genitourinary system***

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## Genitourinary system

The **genitourinary system** or **urogenital system** is the organ system of the reproductive and urinary systems. They are grouped together because of their proximity to each other, their common embryologic origin and the use of common pathways, like urethra in male.

Term		Meaning
<b>Anatomical and physiological terms of reproductive system</b>		
<b>Gonads</b>		Organs that produce gametes (sperm and ovum) .These organs are testes in male and ovaries in female.
<b>Internal genitalia</b>		accessory glands and ducts that connect the gonads with the outside environment.
<b>External genitalia</b>		all external reproductive structures.
<b>Offspring</b>		A person's child or children.
<b>Fertilised egg (zygote)</b>		In human, it is the union of the egg and sperm.
<b>Menopause</b>		The ceasing of menstruation.
<b>Gametogenesis</b>		the process in which cells undergo meiosis to form gametes.
<b>Ovulation</b>		The release of the mature eggs from the ovary.
<b>Meiosis</b>		Cell division process that forms gametes with half number of chromosomes.
<b>Mitosis</b>		A cell division that results in two daughter cells each having the same number and kind of chromosomes as the parent nucleus, typical of ordinary tissue growth.
<b>Puberty</b>		the period during which adolescents reach sexual maturity and become capable of reproduction.

<b>Infertility</b>	is the inability of a person, animal or plant to reproduce by natural means.
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### **Some disorders of reproductive system**

<b>Term</b>	<b>Meaning</b>
<b>Cryptorchidism</b>	failure of one or both testes to move into the scrotum as the male fetus develops.
<b>Monorchism</b>	is the state of having only one testicle within the scrotum.
<b>Bacterial vaginosis</b>	It is a disease of the vagina caused by excessive growth of bacteria.
<b>Syphilis</b>	It is a sexually transmitted infection caused by the bacterium <i>Treponema pallidum</i> affecting the skin and mucous membrane of external genital and mouth. The signs and symptoms of syphilis vary depending on which of the four stages it presents (primary, secondary, latent, and tertiary).
<b>Gonorrhea, or Gonorrhoea</b>	is a sexually transmitted infection (STI) caused by the bacterium <i>Neisseria gonorrhoeae</i> . Men symptoms may have burning with urination, discharge from the penis, or testicular pain. Women symptoms may have burning with urination, vaginal discharge, vaginal bleeding between periods, or pelvic pain.
<b>Acute prostatitis</b>	It is a serious bacterial infection of the prostate gland.

### **Anatomical and physiological terms of urinary system**

<b>Term</b>	<b>Meaning</b>
<b>Urinary system</b>	<b>Consist of kidneys, ureters, bladder, and urethra.</b>

<b>Nephron</b>	is the microscopic structural and functional unit of the kidney. It is composed of a renal corpuscle and a renal tubule. The renal corpuscle consists of a tuft of capillaries called a glomerulus and an encompassing Bowman's capsule. 80% of the urinary nephrons are almost completely contained within the cortex of the kidney.
<b>Renal artery</b>	The blood vessel that enters kidney before flowing into smaller arteries and then into the afferent arterioles which divided into a microscopic ball like structures of capillaries called glomeruli.
<b>Efferent arterioles</b>	Blood leave the glomerulus flow through these arterioles then form a second set of capillaries called peritubular capillaries that surround the tubule. Finally, renal capillaries join to form venules and small veins, conducting blood out of the kidney through the renal vein.
<b>Bowman's capsule</b>	The beginning part of the nephron surrounding the glomerulus.
<b>Proximal tubule</b>	The second part of the renal nephron after bowman's capsule.
<b>Lope of Henle</b>	hairpin-shaped tubular segment of the nephron divided into two limbs, a thin descending limb and an ascending limb with thin and thick segments.
<b>Distal tubule</b>	The last tubular part of the nephron which drains into a larger tube called collecting duct. Collecting ducts pass from the cortex through the medulla and drain into the renal pelvis.
<b>Urgency</b>	Feeling the need to urinate immediately.
<b>Urinalysis</b>	analysis of urine by physical, chemical, and

	microscopical means to test for the presence of disease, drugs, etc.
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### **Some disorders of urinary system**

<b>Term</b>	<b>Meaning</b>
<b>Hypokalemia</b>	Low blood potassium.
<b>Ketonuria</b>	Presence of ketones in urine
<b>Nocturia</b>	Frequent urination at night: not to be confused with bed wetting.
<b>Nocturnal enuresis</b>	also called bedwetting, is involuntary urination while asleep after the age at which bladder control usually occurs.
<b>Incontinent</b>	Loss of self-control.
<b>Nephrolith</b>	Medical term of kidney stone or renal calculus.
<b>Cysto-</b>	Urinary system or bladder.
<b>Bacteriuria</b>	Bacteria in the urine.
<b>Dysuria</b>	Painful or difficult urination.
<b>Anuria</b>	Absence of urine.
<b>Dialysis</b>	a procedure to remove waste products from the blood of patients whose kidneys no longer function.
<b>Hemodialysis</b>	removal of unwanted substances from the blood by passage through a semipermeable membrane of the dialysis machine.