

**Introduction to  
Medical Terminology  
Chapter 9 The Urinary System**

# Functions of the Urinary System

- Elimination of waste products
  - Toxins
  - Drugs
- Regulate aspects of homeostasis
  - Water balance
  - Electrolytes
  - Acid-base balance in the blood
  - Blood pressure

# Organs of the Urinary system

- Kidneys (2)
- Ureters (2)
- Urinary bladder (1)
- Urethra (1)

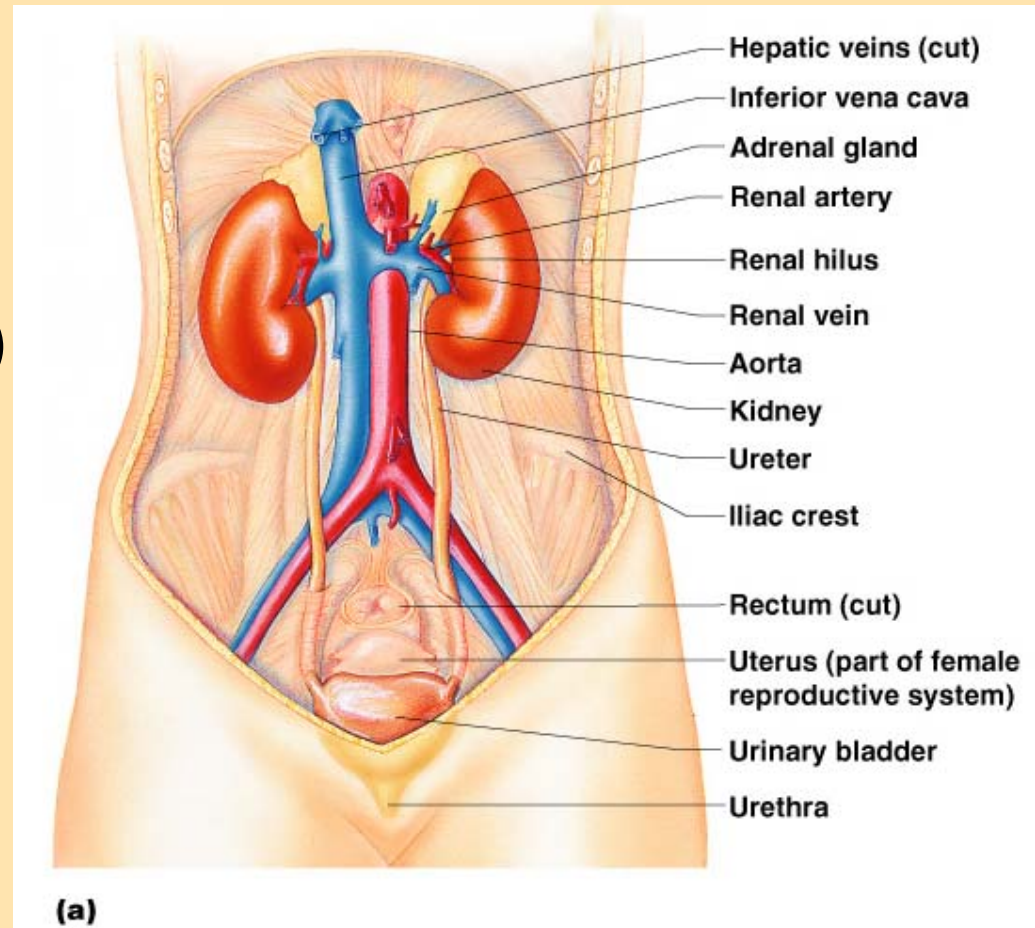


Figure 15.1a

# Regions of the Kidney

- Renal cortex – outer region
- Renal medulla – inside the cortex
- Renal pelvis – inner collecting tube

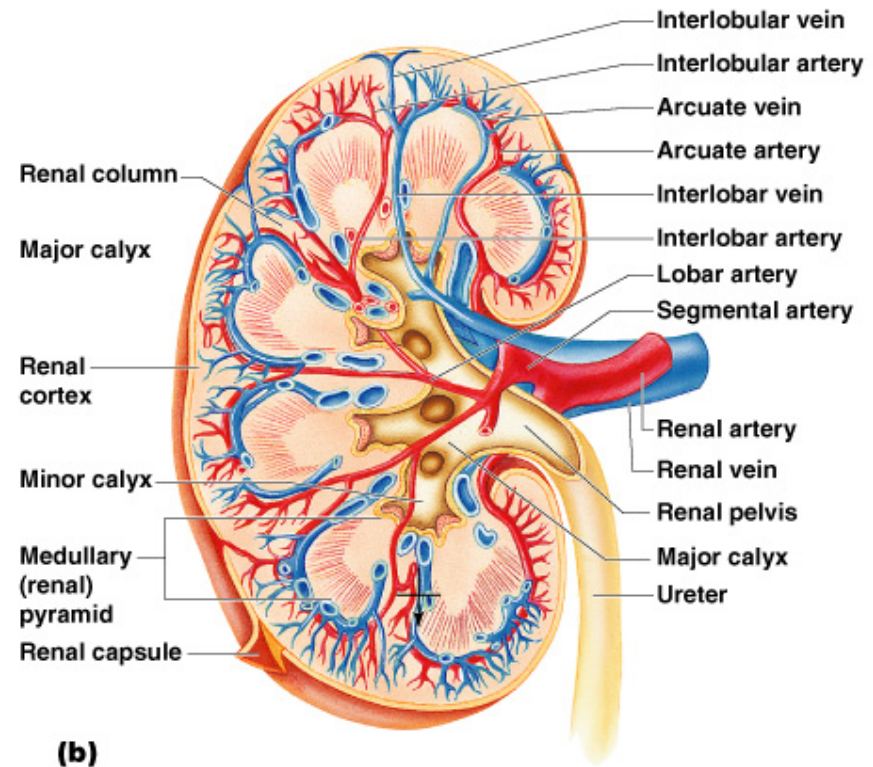
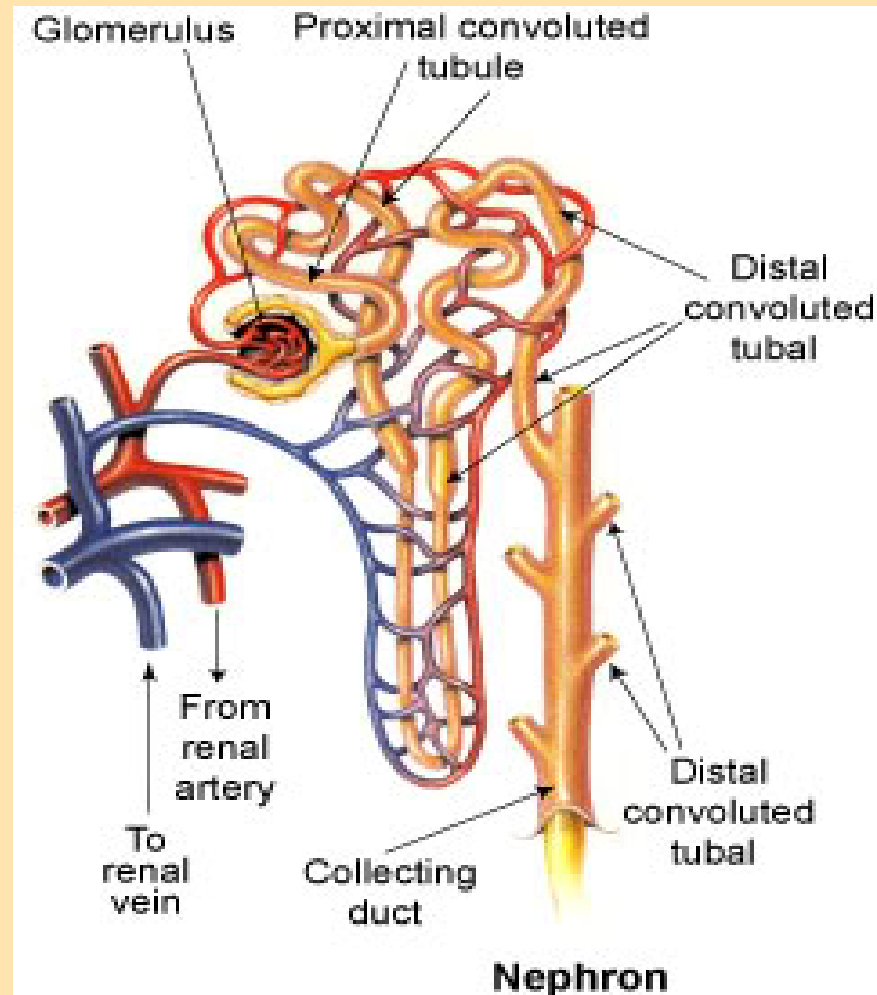


Figure 15.2b

# Nephrons

- The filtering units of the kidneys
- Responsible for forming urine
- Main structures of the nephrons:  
Glomerulus  
Renal tubule



- Each nephron contains a glomerulus
- A specialized capillary bed
- Surrounded by a membrane called the Bowman's capsule

# Glomerulus

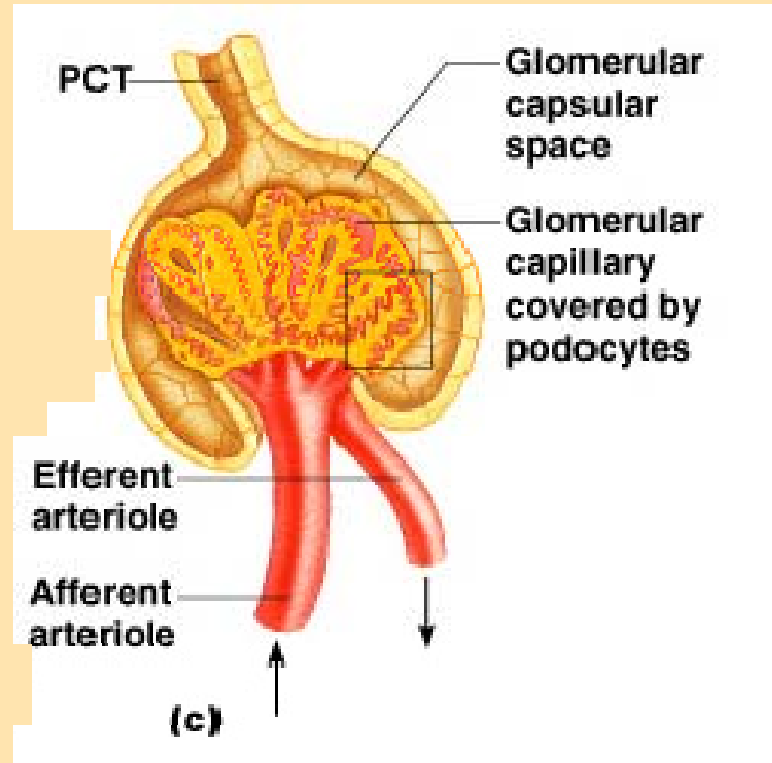


Figure 15.3c

# Common Disorders of the Urinary System

## Uremia

- Also known as uremic poisoning
- A toxic condition caused by excessive amounts of urea and other waste products in the bloodstream

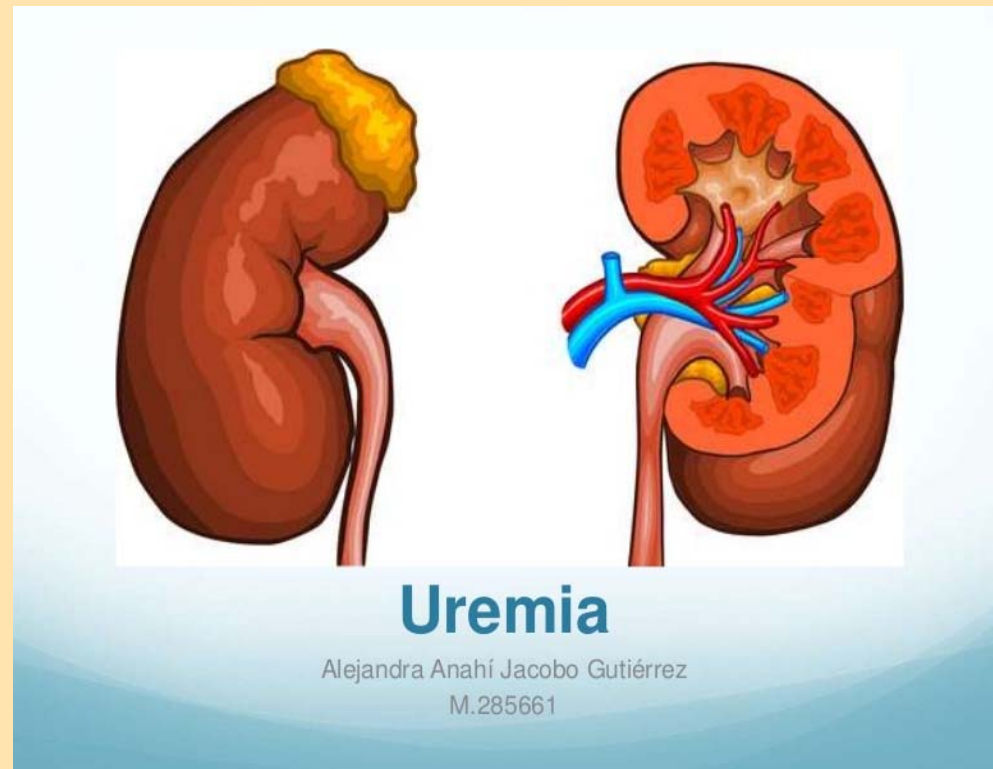


Figure 15.3b

# Ureteralgia

- Pain in the ureter(s)
- Often caused by a stone, also known as a calculus, in the ureter

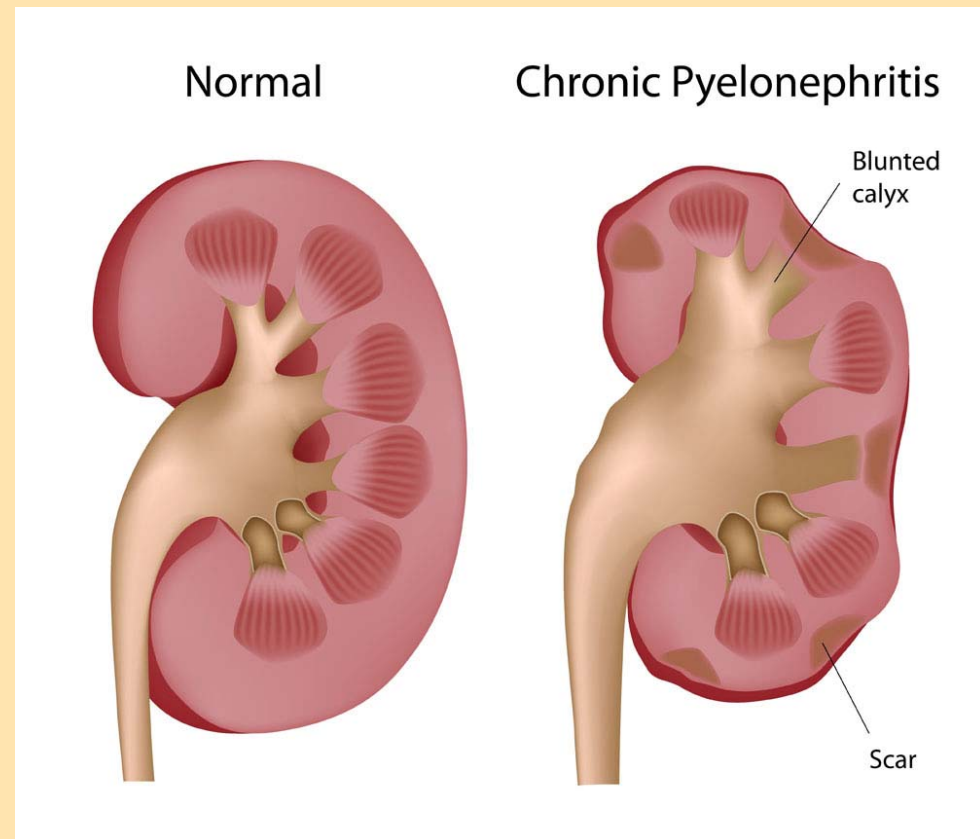


Figure 15.3a



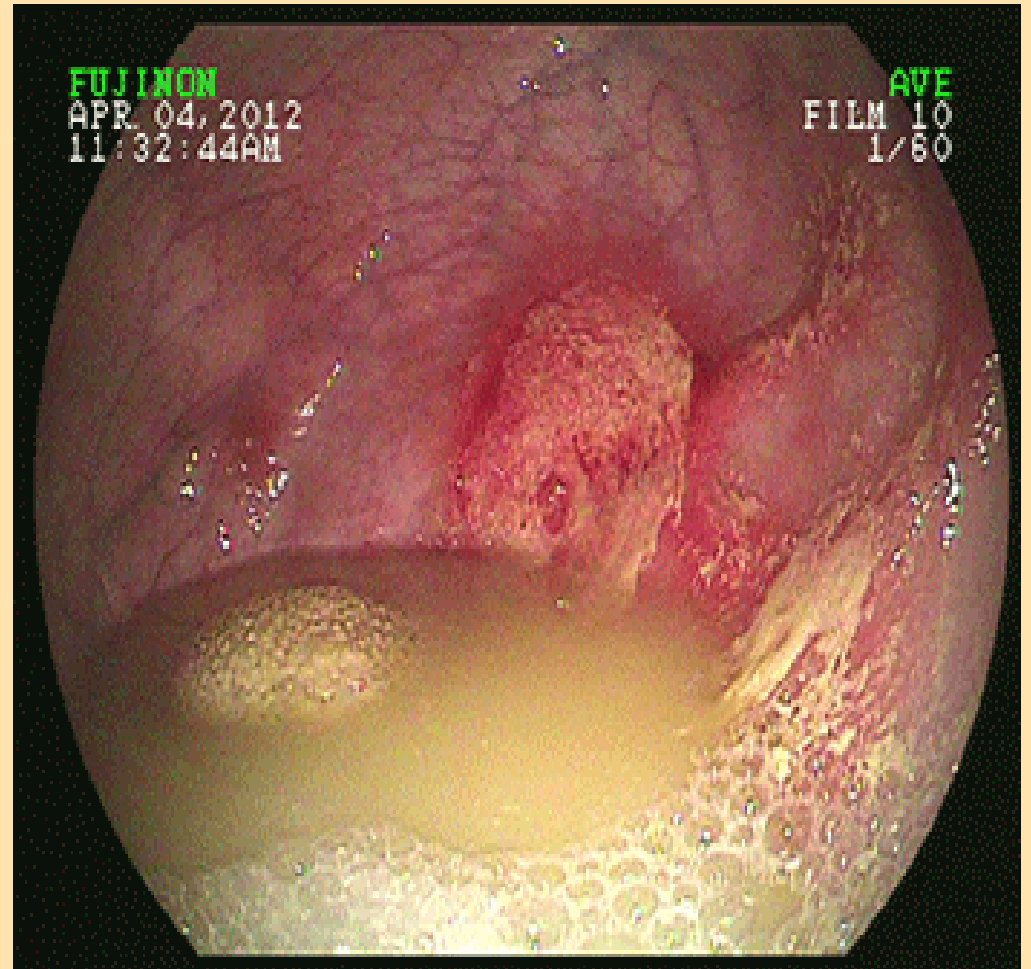
# Pyelonephritis

An inflammation of the renal pelvis and of the kidney



# Cystolith

A calculus in  
the urinary  
bladder



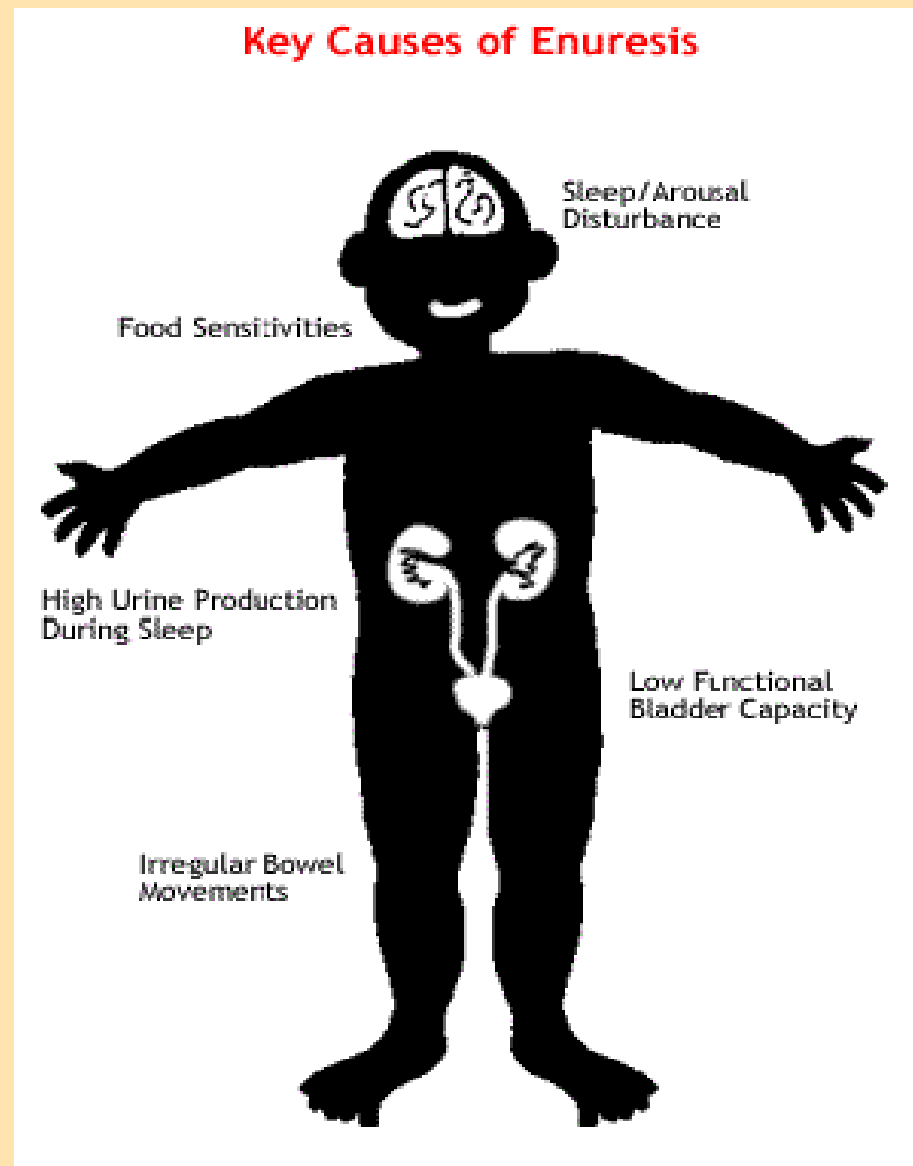
# Dysuria

- Difficult or painful urination
- Can result from infection, calculi or injury



# Enuresis

- The involuntary discharge of urine
- When it occurs during sleep, it is also known as nocturnal enuresis or “bedwetting”



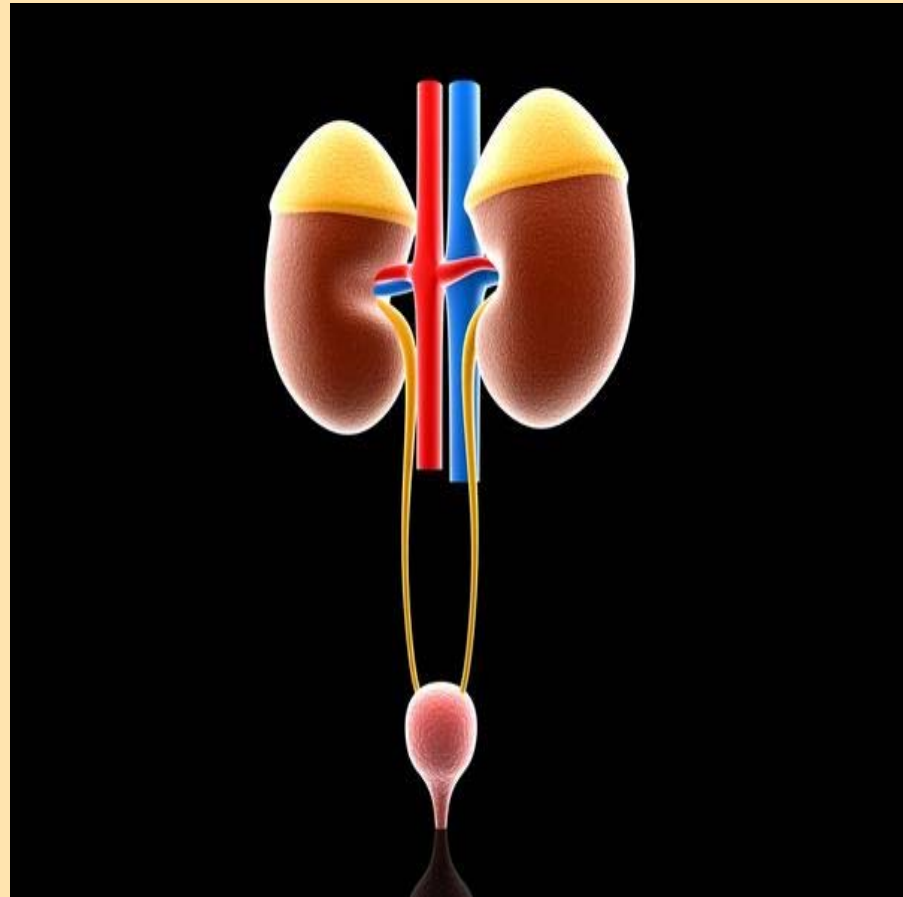
# Diuresis

The increased excretion of urine



# KUB

- A radiographic study of the kidneys, ureters and bladder
- Also known as a flat-plate of the abdomen



# Nephropexy

The surgical fixation of a floating kidney

