Diseases of the Excretory System

Infections

I. Cystitis – inflammation of the urinary bladder.
   Can occur because of chemical injury e.g. drugs/ointments/irritants.
   Mechanical injury – honeymoon cystitis

II. Nephritis – Inflammation of kidney tissue.
   > Glomerulonephritis – inflammation of nephron.
      Reaction to bacterial toxins from strep.
   > Pyelonephritis* – involves infection of renal pelvis, calyces & tubules.
      Can cause scarring of renal tissue.
   * Can impair kidney function – most common type of kidney disease.

Renal calculi/Uroliths (aka kidney stones)

- Insoluble salts that are made in the kidney.
- Oxylates (caffeine, chocolate, spinach, alcohol)
- Calcium based (inappropriate calcium deposition) – Parathyroid.
- Causes trauma to kidney and ureters as it passes and tears through the passageways. Accompanied with nausea.
- Accompanied by renal colic. (extreme pain). May seem like an appendicitis, but sudden onset and inability to be comfortable in any position.
- Can occur from prolonged dehydration.
- Somewhat genetic.

Treatment:
- If greater than 5 mm> Lithotripsy – sound wave
- If less then allowed to pass, fluids administered, pain relievers.

Renal Failure aka Uremia

Gradual, progressive deterioration of kidney function.
Toxic build up of urea and creatinine in blood.
Can occur because of:
- Chronic Glomerulonephritis
- Diabetes mellitus
- Polycystic kidney disease
- Hypertension

Symptoms: Pallid and scaly skin, weakness & lethargy, weight loss, prolonged diarrhea.
Prognosis poor.

Effects of Aging

- Number of nephron units decrease almost 50% between ages 30-75. Progressive, natural loss.
- Diminished muscle tone of bladder, results in decreased capacity and inability to void completely.
- Prostate issues in men.
- Only 30% of elderly people have “normal” kidney function.
- Those who are also diabetic (mellitus), are at greater risk for renal failure. 50% of those who have had DM for 20+ years.