URINALYSIS
pH = 4.6 – 8.0

- Normal pH is within this range
- Average = 6
Specific Gravity = 1.003 – 1.035

- Normal SG is within this range
- This is the “density” of the liquid.
- Water = 1.000
  - 1.003 = dilute
  - 1.035 = concentrated
Urochrome / urobilin

Oxidized form of urobilinogen, which is yellow and causes normal urine color
Unorganized Sediments (crystals)

Calcium Oxalate

Cystine
Unorganized sediments (crystals)

Struvite

Uric Acid
Renal calculus
Organized sediments
WBCs (pus)

An occasional WBC is normal

All of these samples are abnormal
RBCs

An occasional RBC is normal

Both of these samples are abnormal
Epithelial cells

Usually normal and come from ureters, bladder, and urethra
Casts

Hyaline = usually normal

Waxy = renal failure

Granular = cause varies
Centrifuge

Spins the sample to separate its components
Urine dipsticks

Used to detect substances and cellular material in urine samples
Urinometer

Determines the specific gravity of urine
Sedi-stain

Stains cellular components so they can be easily seen