

# Urinalysis

Test	Normal	Elevates	Decreases
<b>Protein</b>	Negative	Nephrotic Syndrome, HTN, DM, Fever	
<b>Haematuria</b>	Negative	Nephritic Syndrome, Infection, polycystic kidney disease, Calculi, Ciprofloxacin, NSAIDs, Frusemide	
<b>Glucose</b>	Negative	DM	
<b>Ketones</b>	Negative	Ketoacidosis, starvation	
<b>Nitrites</b>		UTI	
<b>Leukocytes</b>		UTI, vaginal discharge	
<b>Leukocyte Esterase</b>		Surrogate marker for WBCs	
<b>Conjugated Bilirubin</b>	Negative	Obstructive or Intrahepatic Jaundice	
<b>Urobilinogen</b>	Trace	Prehepatic Jaundice, Hepatic Jaundice	Obstructive Jaundice
<b>pH</b>	5.5-6.5	Alkalosis, UTI	Acidosis, DM, Diarrhoea, Starvation
<b>Specific Gravity</b>	1.002 - 1.0035	Dehydration, Liver failure, CCF, nephrotic syndrome, glycosuria, proteinuria	Excessive hydration, diabetes Insipidus

## Patterns of Disease

- **Nephrotic Syndrome**
  - Proteinuria
  - Frothy Urine
  - Elevated specific gravity
  - (Few or no RBC casts)
- **Nephritic Syndrome**
  - Haematuria
  - RBC casts
  - Proteinuria
  - RBCs
- **Obstructive Jaundice**
  - Positive Bilirubin
  - Low/Absent Urobilinogen
  - Dark Urine
- **Prehepatic Jaundice**
  - Elevated Urobilinogen
- **Intrahepatic Jaundice**
  - Positive Bilirubin
  - Elevated Urobilinogen
- **Dehydration**
  - Elevated Specific Gravity
- **UTI**
  - Elevated Nitrites
  - Elevated Leukocytes
  - Alkalotic
  - Elevated Leukocyte Esterase
- **Diabetes Mellitus**
  - Elevated Glucose
  - Acidotic
  - Proteinuria
  - Elevated Specific Gravity