

## URINALYSIS AND BLOOD ANALYSIS REFERENCE SHEET

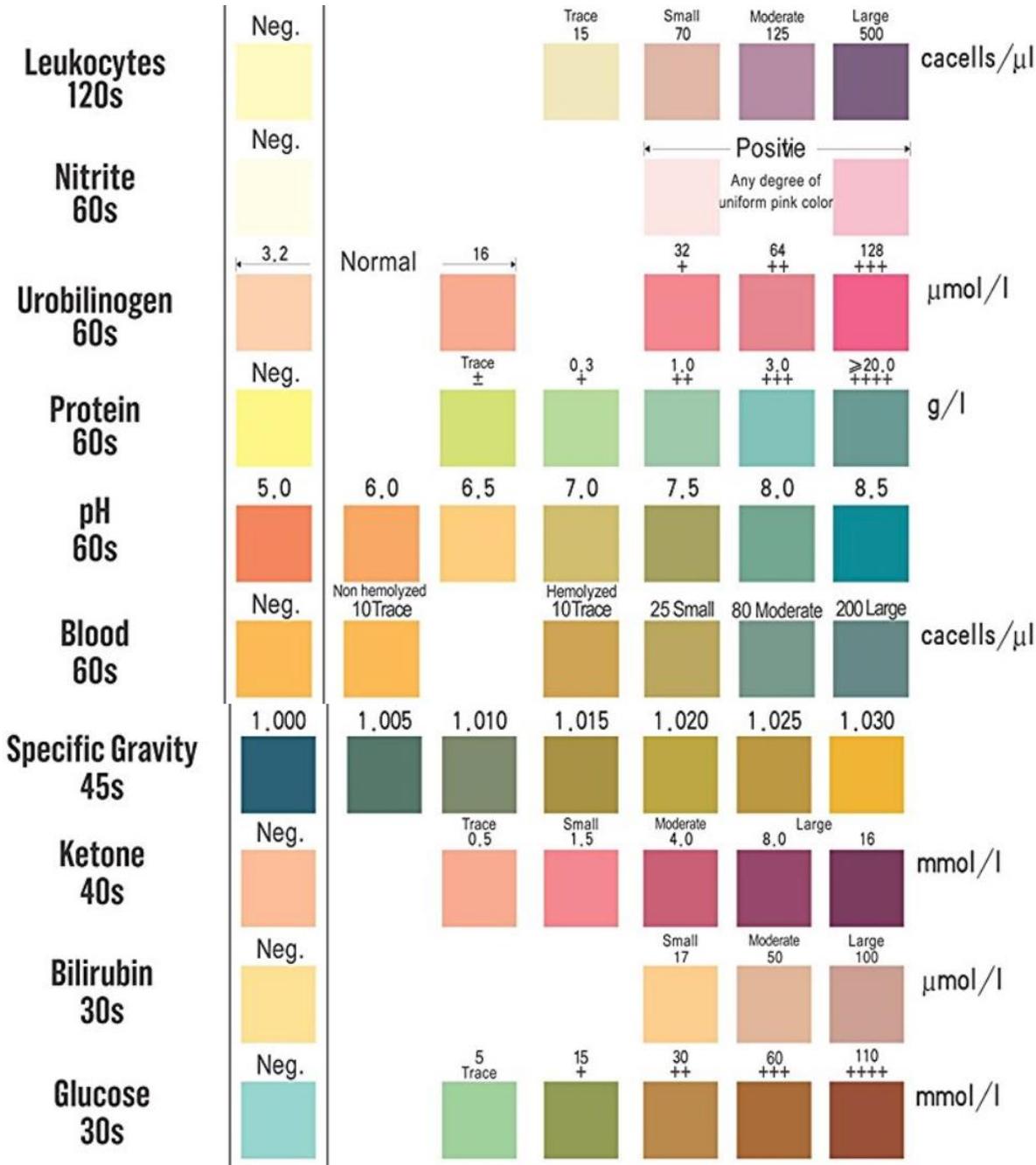
### PART A: URINALYSIS

Abnormal Vs. Normal Urine		
<b>Visual Observations</b>	<b>Appearance</b>	<b>Possible Condition(s)</b>
	<b>Yellow and Clear</b>	Normal
	<b>Dark Yellow</b>	May indicate concentrated urine from dehydration
	<b>Brownish or Green</b>	May indicate bile pigments
	<b>Reddish-Amber</b>	May indicate <b>urobilinogen</b> , which is produced in the intestine by bacteria in bile; evidence of liver disease, Addison's, or other conditions
	<b>Cloudy</b>	May indicate phosphates, white blood cells (WBCs), bacteria, epithelial cells or fat
	<b>Milky</b>	May indicate presence of WBCs, bacteria, or fat
<b>Microscopic Observations</b>	<b>Appearance</b>	<b>Possible Conditions</b>
	<b>Crystals</b>	Can be normally occurring; persistent crystals may indicate kidney stones or infection
	<b>Large Particles (casts)</b>	May indicate chronic kidney failure, proteinuria, or be present after strenuous exercise
<b>Chemical Analysis</b>	<b>Property</b>	<b>Possible Conditions</b>
	<b>Leukocytes</b>	Indicates inflammation of the urinary tract usually caused by infection
	<b>Nitrite</b>	Normal urine has very little to no nitrite. Presence may indicate bacterial contamination/urinary tract infection (UTI)
	<b>Urobilinogen</b>	Urobilinogen is produced in the intestine by bacteria in bile; may indicate liver disease, Addison's, or other conditions
	<b>Protein</b>	Normal urine has no protein. Presence may indicate kidney trauma, ingestion of heavy metals, bacterial toxins, nephritis, or hypertension; may also arise under conditions of physical stress or strenuous exercise
	<b>pH</b>	Normal urine pH is between 6-7; below 6 may indicate gout, fever, or kidney stones; above 7 may indicate urinary tract infection, vegetarian diet, bowel obstruction, vomiting, or drug use
	<b>Red Blood Cells (erythrocytes)</b>	May indicate irritation of the urinary tract organs by calculi or physical trauma; may also indicate hemolysis of red blood cells due to such conditions as anemia, transfusion reactions, burns, or renal disease
	<b>Specific Gravity</b>	Normal urine specific gravity is between 1.015 and 1.025 <b>Less than 1.015:</b> may indicate excess fluid intake, diabetes insipidus or chronic renal failure; <b>More than 1.025:</b> may indicate limited fluid intake, dehydration, fever, kidney inflammation
	<b>Ketones</b>	Normal urine has no ketones. Presence may indicate starvation or abnormal metabolic processes such as excessive metabolism of fats or proteins in the body; possibly indicates diabetic ketosis
	<b>Bilirubin</b>	Normal urine has no bilirubin. Presence may indicate liver pathology such as hepatitis or cirrhosis
	<b>Glucose</b>	Normal urine has no glucose. Presence may result from excessive carbohydrate intake or diabetes mellitus

### PART B: BLOOD GLUCOSE

Normal vs. Abnormal Glucose Levels (milligrams/deciliter)				
Blood Glucose Test	Hypoglycemia	Normal	Pre-diabetes	Hyperglycemia
	< 40 mg/dL	40 – 99 mg/dL	100 – 125 mg/dL	> 126 mg/dL

# URINE TEST STRIP INDICATOR SHEET



# GLUCOSE STRIP INDICATOR

