TESTS & DESCRIPTIONS INCLUDED IN PUNXSUTAWNEY ROTARY CLUB COMMUNITY BLOOD SCREENING

1.	SODIUM	One of the most important elements in the body. Essential for acid-base balance, water balance, nerve transmission and muscle contraction.
2.	POTASSIUM	Metallic element essential to life. Functions in nerve and muscle activity.
3.	CHLORIDE	Measured along with other electrolytes because of important relationships with respect to acid-base and cation-anion balance.
4.	URIC ACID	Product of protein metabolism. Uric acid determinations are normally ordered for the purpose of screening for gout.
5.	PHOSPHORUS	Non-metallic element essential in the body for calcium, protein and glucose metabolism. It is usually measured along with calcium since each measurement is useful in the interpretation of the other.
6.	CALCIUM	Although 99% of the calcium in the body is contained in the bones and teeth, it is the calcium content of blood that is of most importance to the physician. Calcium exists in different forms in the blood. Total calcium is measured in the ion form and is important for nerve impulse transmission, muscle function, blood coagulation, teeth and bone formation and heart function.
7.	MAGNESIUM	This intracellular ion is required by many of the enzymes that are involved in lipid, carbohydrate and protein metabolism.
8.	ALKALINE PHOSPHATASE	Determining the blood level of this enzyme has been useful primarily because elevations are largely limited to diseases of two organs: bone & liver.
9.	GGTP	(Gamma Glutamyl Transferase) Normally only small amounts of this enzyme are present in blood. As is the case with most enzymes, the interpretation of an elevated GGTP is greatly aided by comparing it with other enzyme activity.

10.	AST	(Aspartate Aminotransferase) This enzyme is found in highest concentrations in the liver and heart muscle, and is also abundant in skeletal muscle, kidney and pancreas. Clinical usefulness is largely restricted to diagnosis of diseases of the liver and heart. The most information is gained if this enzyme is measured simultaneously with other enzymes.
11.	ALT	(Alanine Aminotransperase) This enzyme is found in highest concentrations in the liver. It is usually measured in conjunction with the SGOT to help differentiate between diseases of the liver or heart.
12.	LD	(Lactic Dehydrogenase) Increase in LDH activity is known to have diagnostic importance. An increase in this enzyme is a good indicator of tissue damage. Further testing would need to be done to determine what kind of tissue damage.
13.	TOTAL BILIRUBIN	Waste product derived from the breakdown of hemoglobin. The abnormal accumulation of bilirubin in the blood and skin causes jaundice. Testing for bilirubin levels in the blood helps in the diagnosis of several diseases including cirrhosis of the liver.
14.	DIRECT BILIRUBIN	Comprises about 75-80% of the total bilirubin. Measurement of this fraction is useful in the diagnosis of obstructive conditions of the liver.
15.	GLUCOSE	"Blood Sugar" - simple sugar that is the major energy source in the body. This is the most frequently ordered chemistry test. Level in the blood is important in the diagnosis of many disorders including "diabetes mellitus."
16.	UREA NITROGEN	Indicates the amount of nitrogenous material present in the blood as urea. It is an indicator of kidney function.
17.	CREATININE	Measured primarily to assess kidney function. It is synthesized in the liver and is involved in energy storage in skeletal muscles.
18.	BUN/CREATININE RATIO	The ratio of the BUN to creatinine expressed as a single number. Used as an indicator in the diagnosis of kidney disease.
19.	TOTAL PROTEIN	Is intended to assess liver function and malfunction of the immune system. The total protein is made up of albumin and many other proteins. Proteins are synthesized in the body from their constituent amino acids obtained in the diet

20.	ALBUMIN	Water-soluble protein found in most animal tissues. Determination of the types and levels of albumin in blood, urine and other body tissues and fluids is the basis of many diagnostic tests.
21.	GLOBULIN	Any of a group of simple proteins found in the blood.
22.	A/G RATIO	Determination of the total protein and albumin. Calculation of the A/G ratio serves as a screening test for certain disease states.
23.	TOTAL CHOLESTEROL	Many studies indicate that excessive cholesterol levels in the blood can clog arteries and predispose to heart attacks and strokes.
24.	HDL	(High Density Lipoprotein Cholesterol) High levels of HDL tend to protect against atherosclerosis and the diseases that result from it.
25.	CHOLESTEROL/ HDL RATIO	The ratio of total cholesterol to HDL expressed as a single number. Serves as another indicator in the prevention of cholesterol related problems.
26.	LDL	(Low Density Lipoprotein) Calculated from the total cholesterol and HDL measurements. This is the type of cholesterol implicated in coronary artery disease.
27.	TRIGLYCERIDE	The amount and proportion of different types of triglycerides in the blood is important in the diagnosis of heart disease and diabetes mellitus.
28.	PLATELET	(Platelet Count) Measure of total platelets in the blood. Platelets are tiny fragments of specialized cells, and are necessary for clot formation.
29.	IRON	Plays a vital role in metabolism. Iron is essential in the formation of hemoglobin, the oxygen-carrying protein found in red cells. Many enzymes either contain or require the presence of iron. Iron levels help in the diagnosis of the various anemias.
30.	GFR ESTIMATED	(Glomerular Filtration Rate) Calculated estimate of the actual filtration rate of the kidneys, based on the creatinine result.
31.	WBC	(White Blood Cell or Leukocyte) Measure of the total leukocyte count in the blood. Leukocytes are an important part of the body's defense mechanism. They are concerned primarily in the destruction of disease-producing micro-

organisms.

32.	RBC	(Red Blood Cell or Erythrocyte) Measure of the total erythrocytes contain the pigment hemoglobin. Their main function is to transport oxygen to the tissues of the body.
33.	HGB	(Hemoglobin) Compound composed of the iron-containing pigment "heme" and the protein "globin" found in red blood cells. Anemia is a condition in which the hemo-globin content in the blood is below normal limits.
34.	HCT	(Hematocrit) A measure of the volume of red blood cells as a percentage of the total blood volume.
35.	MCV	(Mean Corpuscular Volume) Volume of a single red cell.
36.	MCH	(Mean Corpuscular Hemoglobin) Weight of hemoglobin in a single red cell.
37.	MCHC	(Mean Corpuscular Hemoglobin Concentration) Amount of hemoglobin in the red cells expressed as a percentage of total red cells.
38.	RDW	(Red Cell Distribution Width) Estimate of overall red cell size.
39.	TSH	***(optional)*** (Thyroid Stimulating Hormone) Useful in the diagnosis of underactive or overactive thyroid.
40.	HEMOGLOBIN	***(optional)*** (A1C) The A1C test is a blood test that provides information about your average levels of blood glucose, also called blood sugar, over the past 3 months. The A1C test can be used to diagnose type 2 diabetes and prediabetes. The A1C test is also the primary test used for diabetes management.
41.	PSA	***(optional)*** (Prostate Specific Antigen) Present in small quantities in the serum of normal men. Often elevated in the presence of prostate cancer and in other prostate disorders.