Uric Acid

The bool uric acid test measure the amount of uric acid in a blood sample. Uric acid is a waste product found in blood. It's created when the body breaks down chemicals called purines. Most uric acid dissolves in the blood, passes through the kidneys and leaves the body in urine. Food and drinks high in purines also increase the level of uric acid.

Uric acid formed in the liver and filtered out by the kidney and passes out of the body in urine. If too much uric acid stays in the body, a condition called hyperuricemia will occur. Hyperuricemia can cause crystals of uric acid (or urate) to form. These crystals can settle in the joints and cause gout, a form of arthritis that can be very painful. They can also settle in the kidneys and form kidney stones.

If untreated, high uric acid levels may eventually lead to permanent bone, joint and tissue damage, kidney disease and heart disease.

Uric acid blood test is done to:

- Help diagnose gout
- Check to see if kidney stone may be caused by uric acid level in the body.
- Check to see if medicine that decreases uric acid levels is working.

Reference value

Child : 2.0-5.5 mg/dl

men : 3.5-7.2mg/dl

women : 2.6-6.0 mg/dl

High uric acid value may be caused by :

- Kidney and liver diseases, anemia, heart failure and type of cancer and its treatment.
- Some of drug like niacin and warfarin.

Procedure :

1 – Bring the Reagent to room temperature

2 – Pipette into labelled test tubes :

Addition Sequence	Blank	Standard	Sample
Distilled water	25µL	-	-
Uric Acid Standard	-	25µL	-
Sample	-	-	25µL
Reagent (A)	1.0mL	1.0mL	1.0mL

3 – Mix thoroughly and incubate the tubes for 10 minutes at room temperature (16 – 25◦C) or for 5 minutes at 37◦C .

4 – Measure the absorbance of the Standard (Abs.S) and Test Sample (Abs.T) against the Blank within 30 mint on wavelength 520 nm .

Calculation

$$\text{Uric Acid mg/dl} = \frac{Abs.T}{Abs.S} \times Standard \times Sample\ dilution\ factor$$