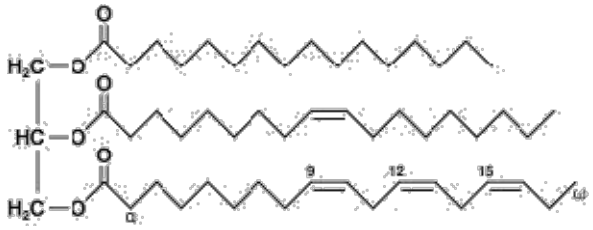
) The Seventh Experiment :

SERUM TRIGLYCERID (TG)

Triglycerides account for >90% of dietary fat intake and comprise 95% of fat stored in tissues. Because they are insoluble in water, they are the main plasma glycerol ester.

Normally stored in :

1. adipose tissue as glycerol
2. fatty acids
3. monoglycerides, the liver reconverts these to triglycerides.



This test evaluates suspected atherosclerosis and measures the body' s ability to metabolize fat. Elevated triglycerides, together with elevated cholesterol, are atherosclerotic disease risk factors. Because cholesterol and triglycerides can vary independent of each other, measurement of both values is more meaningful.

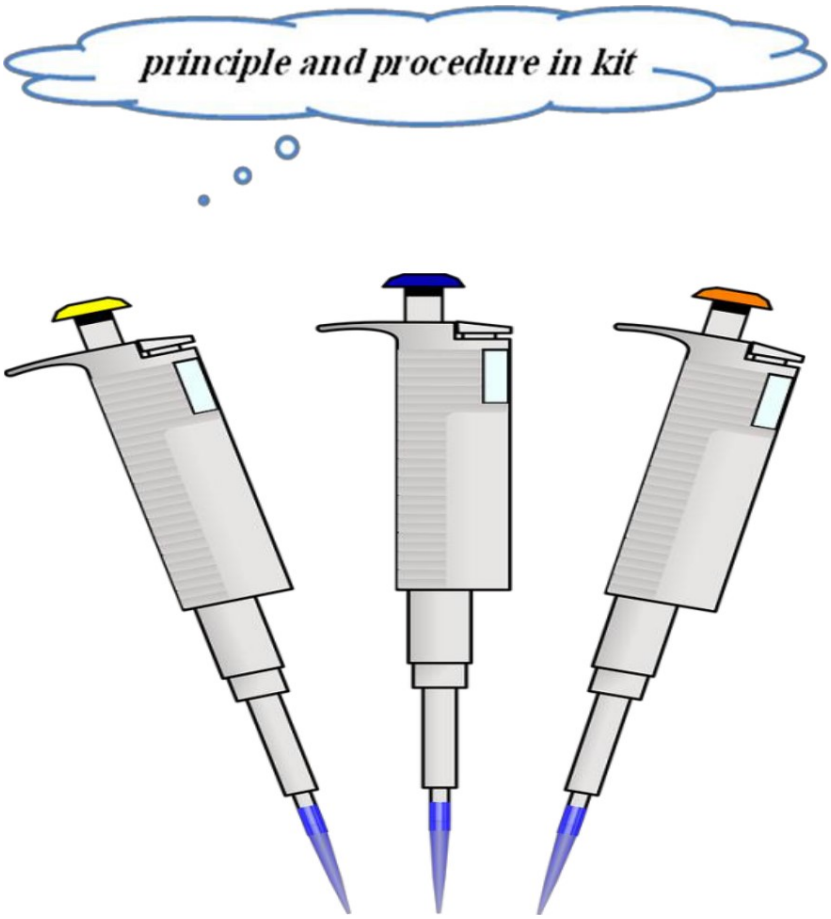
- Triglyceride level is needed to calculate the LDL-C and is also used to evaluate turbid samples of blood and plasma.

Reference Values

Desirable: <150 mg/dL or <1.70 mmol/L
Borderline high: 150-199 mg/dL or 1.70-2.25 mmol/L
High: 200-499 mg/dL or 2.26-5.64 mmol/L
Very high: ≥500 mg/dL or ≥5.65 mmol/L

Clinical significance:

a) *Increased triglycerides occur with the following conditions:*
   1. Liver disease, alcoholism
   2. Nephrotic syndrome, renal disease
   3. Hypothyroidism
   4. Gout
   5. Myocardial infarction.

b) *Decreased triglyceride* levels occur with the following conditions:

1. Malnutrition, malabsorption syndromes
2. Hyperthyroidism, hyperparathyroidism
3. Brain infarction
4. Chronic obstructive lung disease.