Lect.4.

HDL –CHOLESTEROL:

PRINCIPLE :

HDL (high-density lipoprotein), or "good" cholesterol, absorbs cholesterol and carries it back to the liver. The liver then flushes it from the body. High levels of HDL cholesterol can lower your risk for heart disease and stroke.

High -density lipoprotein (HDL) remain in the supernatant which will determined by Enzymatic method .

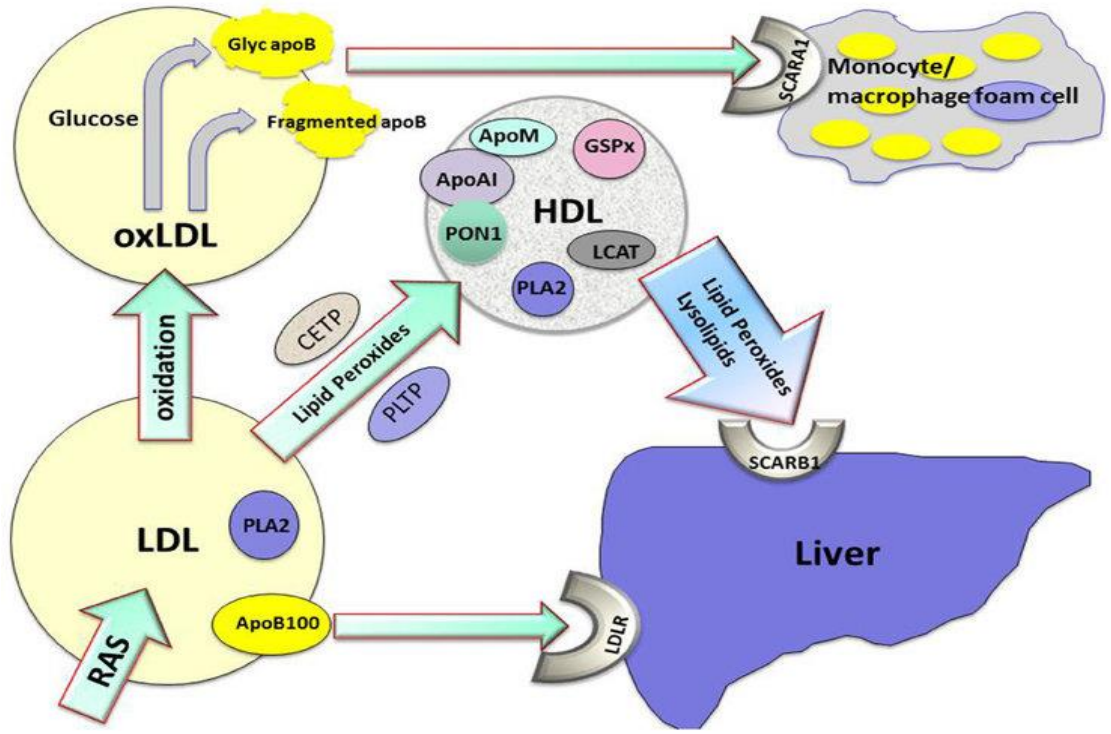


Fig-1- (HDL).

Lect.4.

LDL

Low-density lipoprotein(LDL) and very low density lipoprotein(vLDL) and Chylomicrons are specifically precipitated by Phosphotungstic acid and magnesium ions can be removed by centrifugation.

LDL (low-density lipoprotein), sometimes called "bad" cholesterol, makes up most of your body's cholesterol. High levels of LDL cholesterol raise your risk for heart disease and stroke.

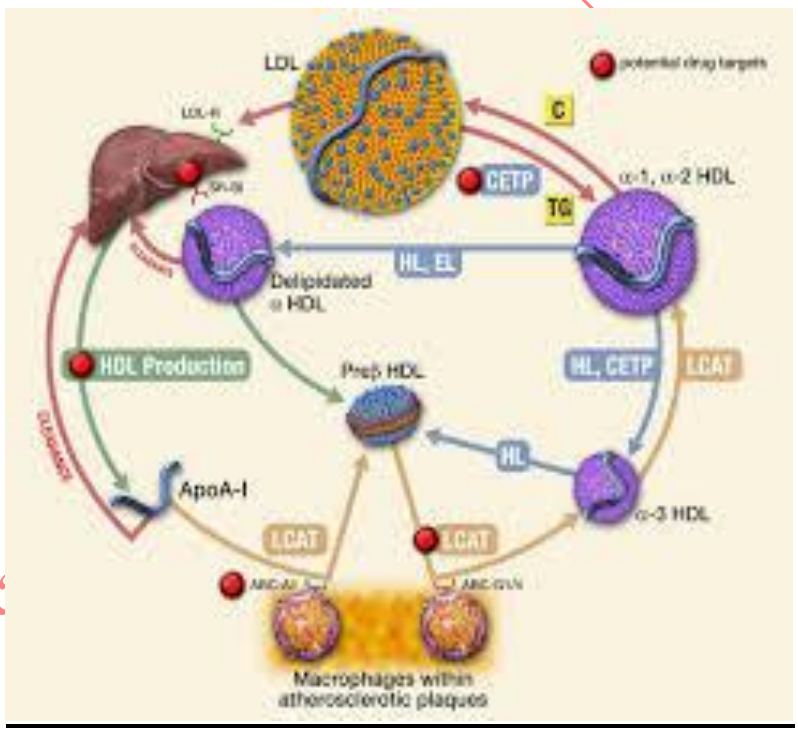


Fig-2- (LDL)

Lect.4.

Clinical significance HDL:

High -density lipoprotein. It is called the(good cholesterol) because it carries cholesterol from tissue back to liver.
And causes heart disease .

Procedure

Serum , Heparin plasma.
HDL cholesterol in Serum stable for(7days) at(2-8 C°), mix well allow to stand for (10 min) at room temperature and centrifuges at 5000rpm for(10 min) .

Sample in centrifuges for(10 min) and add Work reagent of HDL – CHOLESTEROL and back to centrifuges.

	Blank	Standard	Sample
Standard	-	10ml	-
Sample	-	-	10ml
Work reagent	1ml	1ml	1ml

Lect.4.

CALCULATIONS of HDL :

HDL(Mg\dl) = O.D Sample \ O.D Standard X 50X 3

HDL(Mg\dl) = O.D Sample \ O.D Standard x 50X3

LDL –CHOLESTEROL

LDL: Low-density lipoprotein. It is called the(bad cholesterol)l because transport the cholesterol manufactured in the liver to tissue where it used.

CALCULATIONS of LDL :

LDL –CHOLESTEROL= Total cholesterol -Triglycerides\5 - HDL cholesterol

LDL –CHOLESTEROL= Total cholesterol-Triglycerides\5- HDL cholesterol.

ResuIt of HDL

Test	Result	Reference Range
S. Cholesterol		100 – 230 mg/dl
S. Triglycerides		45 – 180 mg/dl
S. HDL	20	20 – 60 mg/dl
S.LDL		40 – 130 mg/dl
S. VLDL		10 – 30 mg/dl

Lipid Profile

Test	Result	Reference Range
S. Cholesterol		100 – 230 mg/dl
S. Triglycerides		45 – 180 mg/dl
S. HDL	81	20 – 60 mg/dl
S.LDL		40 – 130 mg/dl
S. VLDL		10 – 30 mg/dl

Lipid Profile

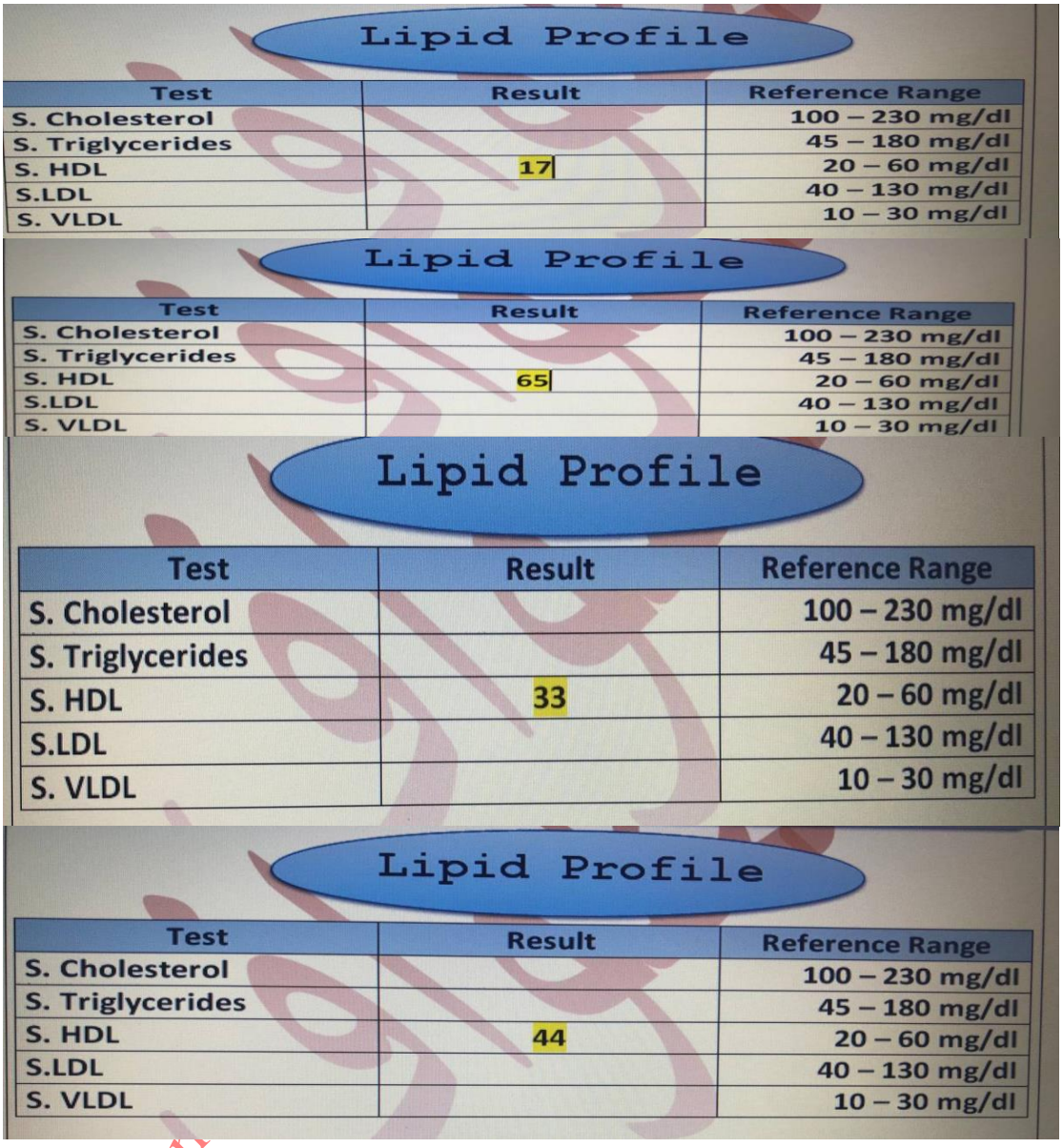
Test	Result	Reference Range
S. Cholesterol		100 – 230 mg/dl
S. Triglycerides		45 – 180 mg/dl
S. HDL	70	20 – 60 mg/dl
S.LDL		40 – 130 mg/dl
S. VLDL		10 – 30 mg/dl

Lipid Profile

Test	Result	Reference Range
S. Cholesterol		100 – 230 mg/dl
S. Triglycerides		45 – 180 mg/dl
S. HDL	55	20 – 60 mg/dl
S.LDL		40 – 130 mg/dl
S. VLDL		10 – 30 mg/dl

Lipid Profile

Test	Result	Reference Range
S. Cholesterol		100 – 230 mg/dl
S. Triglycerides		45 – 180 mg/dl
S. HDL	92	20 – 60 mg/dl
S.LDL		40 – 130 mg/dl
S. VLDL		10 – 30 mg/dl



Lipid Profile

Test	Result	Reference Range
S. Cholesterol		100 – 230 mg/dl
S. Triglycerides		45 – 180 mg/dl
S. HDL	17	20 – 60 mg/dl
S.LDL		40 – 130 mg/dl
S. VLDL		10 – 30 mg/dl

Lipid Profile

Test	Result	Reference Range
S. Cholesterol		100 – 230 mg/dl
S. Triglycerides		45 – 180 mg/dl
S. HDL	65	20 – 60 mg/dl
S.LDL		40 – 130 mg/dl
S. VLDL		10 – 30 mg/dl

Lipid Profile

Test	Result	Reference Range
S. Cholesterol		100 – 230 mg/dl
S. Triglycerides		45 – 180 mg/dl
S. HDL	33	20 – 60 mg/dl
S.LDL		40 – 130 mg/dl
S. VLDL		10 – 30 mg/dl

Lipid Profile

Test	Result	Reference Range
S. Cholesterol		100 – 230 mg/dl
S. Triglycerides		45 – 180 mg/dl
S. HDL	44	20 – 60 mg/dl
S.LDL		40 – 130 mg/dl
S. VLDL		10 – 30 mg/dl