



## BIOCHEMISTRY

### BLOOD - SERUM

#### LIPIDS

**CHOLESTEROL**

**5.8 \*H** 0.0 - 5.5

mmol/L



**TRIGLYCERIDES**

**0.6** 0.2 - 1.5

mmol/L



#### LIPID STUDIES

**HDL(Protective)**

**1.3** > 1.2

mmol/L



**LDL(Atherogenic)**

**4.2 \*H** 0.5 - 3.5

mmol/L



**Cholesterol/HDL Ratio**

**4.4**

**LDL/HDL RATIO (Risk Factor)**

**3.2** 0.0 - 3.2

**Trig/HDL Ratio**

**0.5** 0.5 - 1.7

RATIO



#### LIPOPROTEIN PARTICLE NUMBERS

**VLDL Particle No:**

**0.020** < 0.085

mmol/L



**Total LDL Particle No:**

**1.121 \*H** < 0.900

mmol/L



**Non-HDL Particle No:**

**1.141 \*H** < 1.000

mmol/L



**Remn Lipoprotein Particle No:**

**0.132** < 0.150

mmol/L



**Small Dense LDL-3 Particle No:**

**0.207** < 0.300

mmol/L



**Small Dense LDL-4 Particle No:**

**0.096** < 0.100

mmol/L



**Total HDL Particle No:**

**6.757 \*L** > 7.000

mmol/L



**Lge Buoyant HDL-2b Particle No:**

**1.825** > 1.500

mmol/L



**Particle Number Comment:**

#### ELEVATED LDL Particle Number:

Introduce therapeutic lifestyle changes and/or LDL-lowering drug therapy to lower elevated levels towards a target level of 0.7mmol/L.

For patients with levels greater than 1.1 mmol/L, suggest a more aggressive treatment regime.

(\*) Result outside normal reference range

(H) Result is above upper limit of reference rang (L) Result is below lower limit of reference range



Date of Birth: 08-Jan-1985  
Sex: M  
Collected: 31/Oct/2019  
Received: 31/Oct/2019  
INTERNATIONAL PATIENT 1000  
Lab id: 3640442 UR#:

International  
Psychology Centre 11-  
1 Wisma Laxton Jalan  
Desa KUALA LUMPUR  
MALAYSIA 58100 1000

## Lipid Profile Comment

### CHOLESTEROL COMMENT:

For secondary prevention, total cholesterol Treatment Target is <4.0 mmol/L  
Triglycerides Treatment Target <2.0 mmol/L  
HDL Treatment Target Value >1.0 mmol/L

### LDL-CHOLESTEROL COMMENT:

As there is an elevated LDL level, we suggest a Liposcreen (LDL Subfractions) Test to determine the presence of small, dense (highly atherogenic) LDLs which are a primary cause of Coronary Artery Disease (CAD).

The LDL subtypes are not detectable through conventional Lipid Profiles.

### TRIG/HDL RATIO COMMENT:

HDL is closely related to triglycerides. Commonly, patients with elevated triglycerides also have low HDL levels, and also tend to have elevated levels of clotting factors in their blood stream, which is unhealthy in protecting against heart disease.

The triglyceride/HDL ratio is found to be one of the better predictors of heart disease. Research shows that people with an elevated ratio of triglycerides to HDL have 16 times the risk of heart attack as those with the low/normal.

Therefore, in adults, the triglyceride/HDL ratio should ideally be below 2.0 .

### TRIG/HDL Reference Range:

< 0.9	Considered ideal	(minimal risk)
> 1.7	High	(moderate risk)
> 2.6	Very High	(high risk)