

Cholesterol

- Cholesterol is found only in animal cells.
- Typical animal cell membrane contains about 60% phospholipids and 25% cholesterol.
- Cholesterol imparts rigidity to cell membrane.
- The higher the % of cholesterol, the more rigid the membrane.
- It is an important component of membranes, steroid hormones, bile and Vitamin D
- Bile acids contain cholesterol.
- Transported by HDL and LDL
- **Exogenous** cholesterol comes from diet (15%)
- **Endogenous** cholesterol is synthesized by the liver 70 % of cholesterol associated with cellular components (85%)

What are Lipoproteins and why do we need them?

- Lipoproteins are a handful of different molecules that interact with water insoluble fat molecules, and **transports those fats** in the plasma
- Different lipoproteins are responsible for the transportation of different fats
- Lipoproteins allow fat to be dissolved into the plasma

Hypercholesterolemia

- High cholesterol, major risk for heart disease and stroke

Why is Cholesterol Control Important?

- It is one of the MAJOR RISK FACTORS for heart disease
- High cholesterol & other fats in the blood can lead to heart disease & stroke
- It causes Atherosclerosis
- Special cells catch LDL and deposits the cholesterol out of it in the walls of the blood vessels
- HDL usually collects the bad cholesterol and takes it back to liver