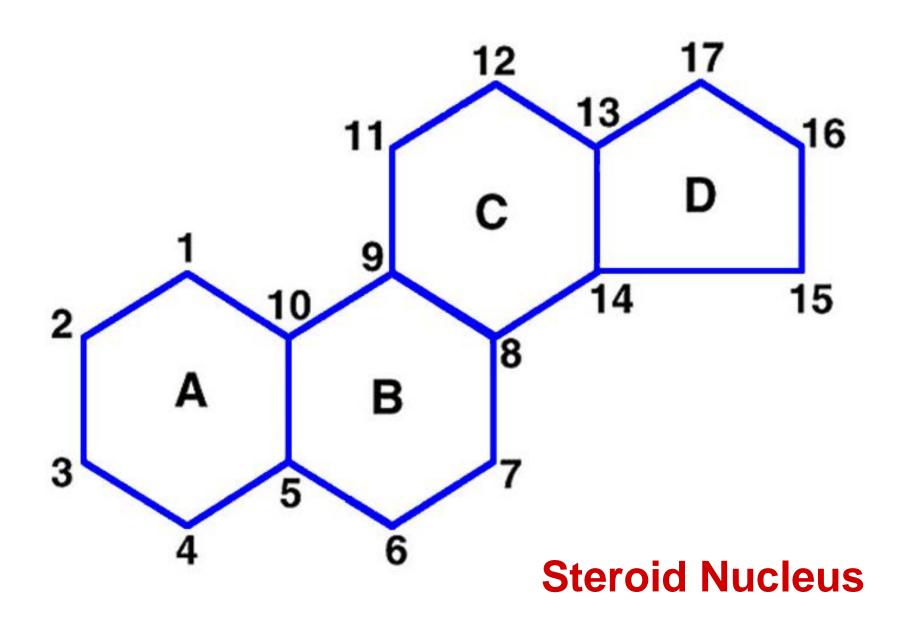
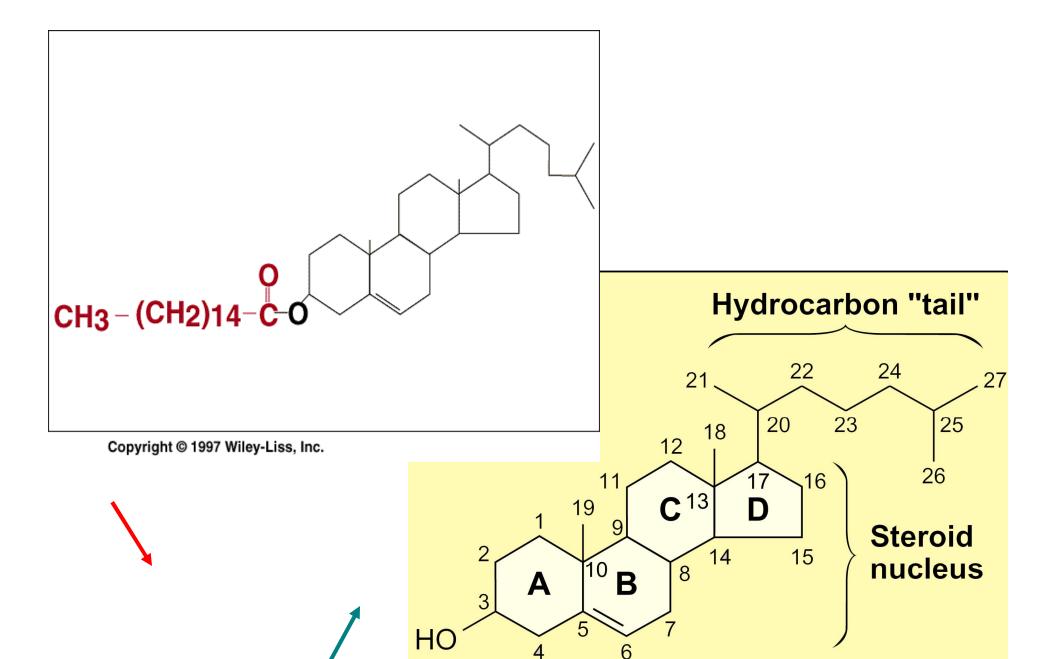


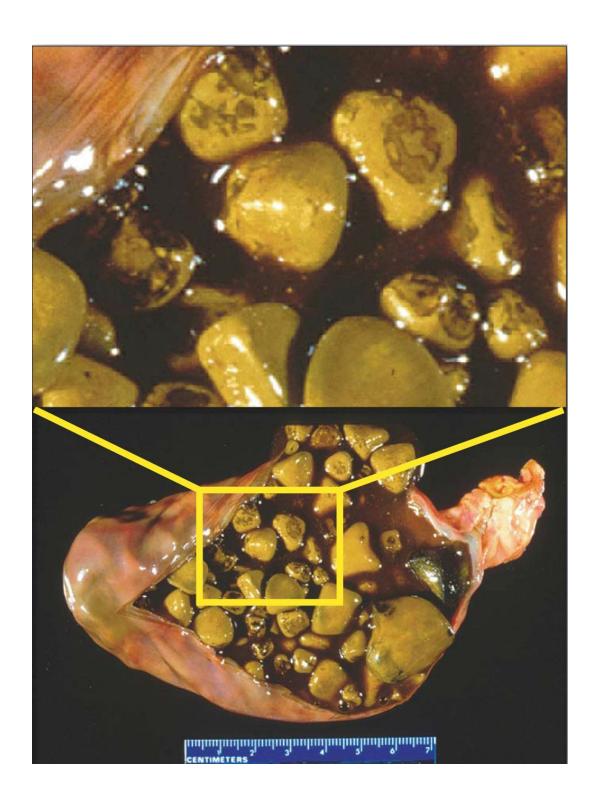
## Cholesterol Metabolism

Lippincott's Illustrated Review Chapter 18





**Cholesterol** 



Cholesterol was isolated from gall bladder stones in 1774

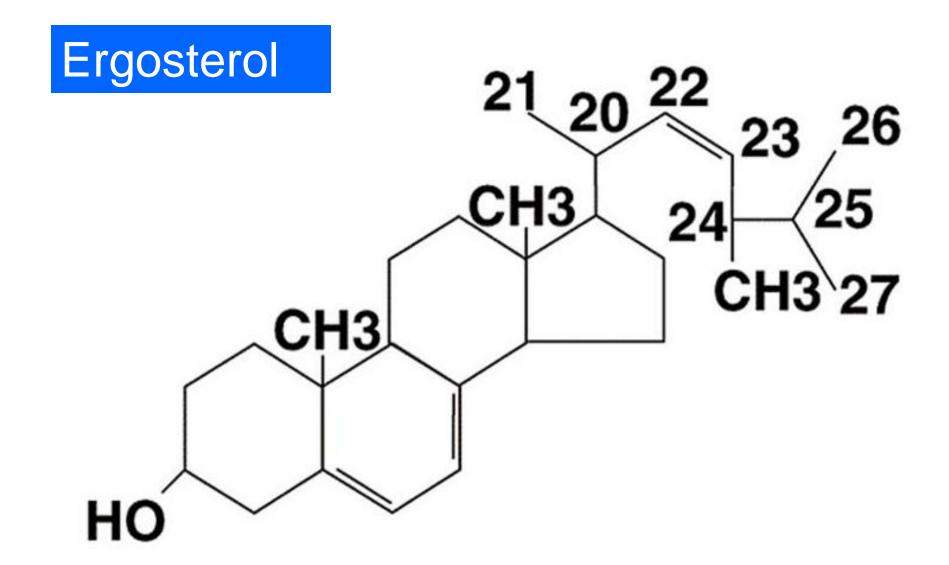
## Sources and Elimination of Cholesterol

Synthesis: ≈ 1000 mg
Liver, Small Intestine, Adrenal Cortex ...

Dietary: ≈ 300 mg (Low Cholesterol Diet)

Elimination: Via the Bile

Cholesterol, Bile Salts



Plant Sterols are Poorly Absorbed by Human

## Major sources of liver cholesterol Cholesterol synthesized Dietary in extrahepatic cholesterol tissues Chylomicron remnants HDL De novo synthesis in the liver Liver Cholesterol Pool Free cholesterol secreted in the bile Secretion of Conversion **VLDL** to bile acids/salts Major routes by which cholesterol leaves the liver

## Cholesterol Synthesis Requires

- Carbon Source: Acetyl CoA
- Energy: ATP
- Reducing Power: NADPH