



Medical Committee  
The University of Jordan



**SLIDE**



**SHEET**



**SLIDE :**

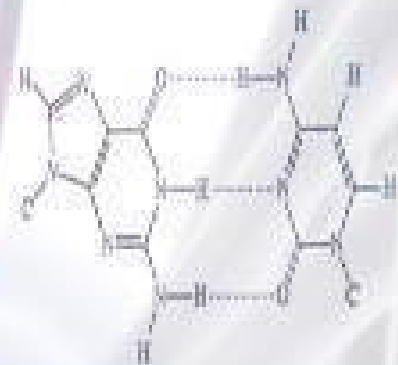
**16**



**DR.NAME:**

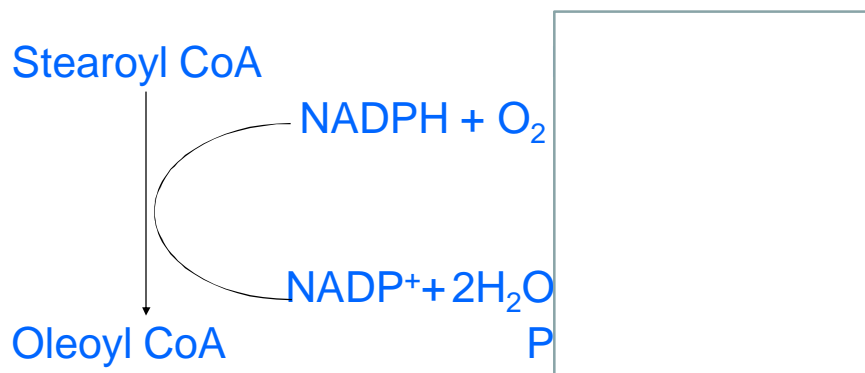
**Dr. Faisal**

Biochemistry



Majida Al-Foqaraa'

## Introduction of Double Bonds (Cont.)



$\Delta^9$  Desaturase; Cytochrome b<sub>5</sub>

## Introduction of Double Bonds (Cont.)

Formation and Modification of Polyunsaturated FA

-Elongation

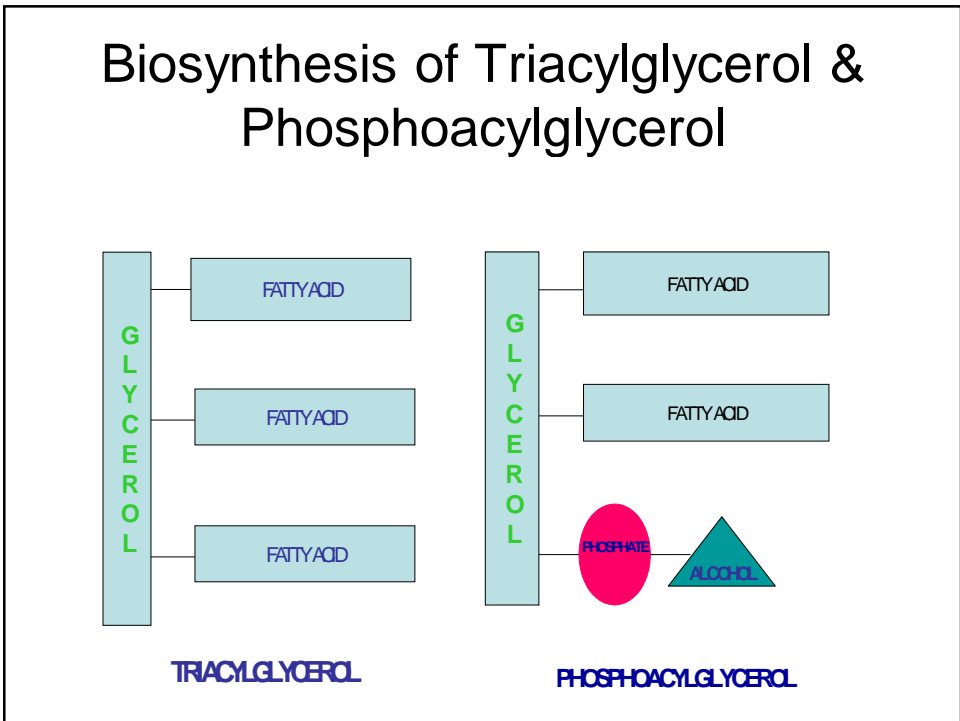
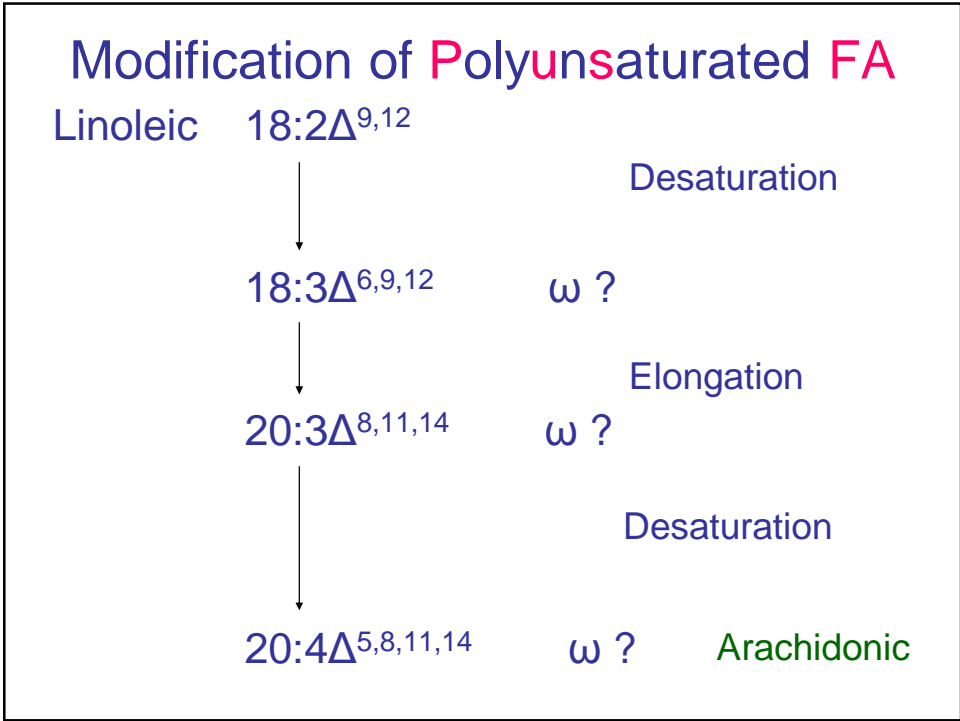
- Desaturation

Additional double bonds can be introduced by:

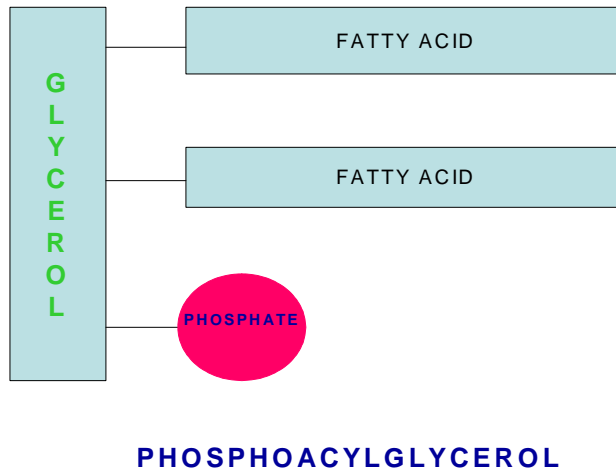
$\Delta^4$  Desaturase

$\Delta^5$  Desaturase

$\Delta^6$  Desaturase



## Phosphotadic Acid is Common Intermediate

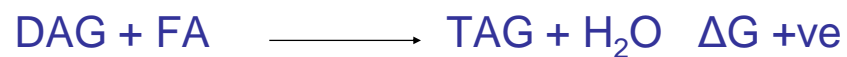
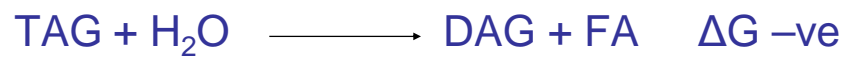


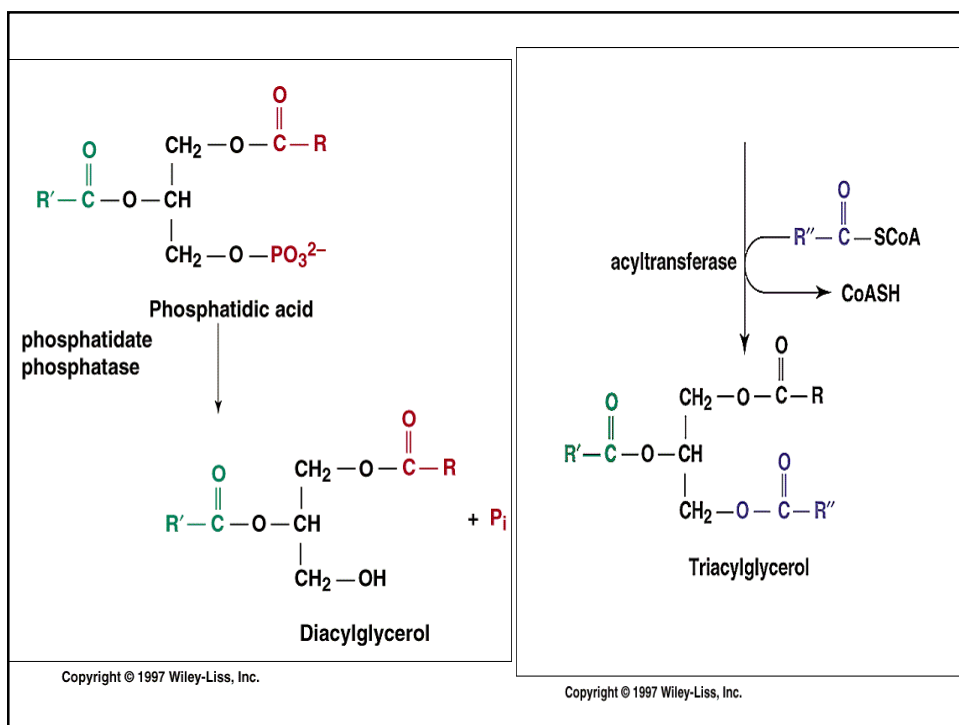
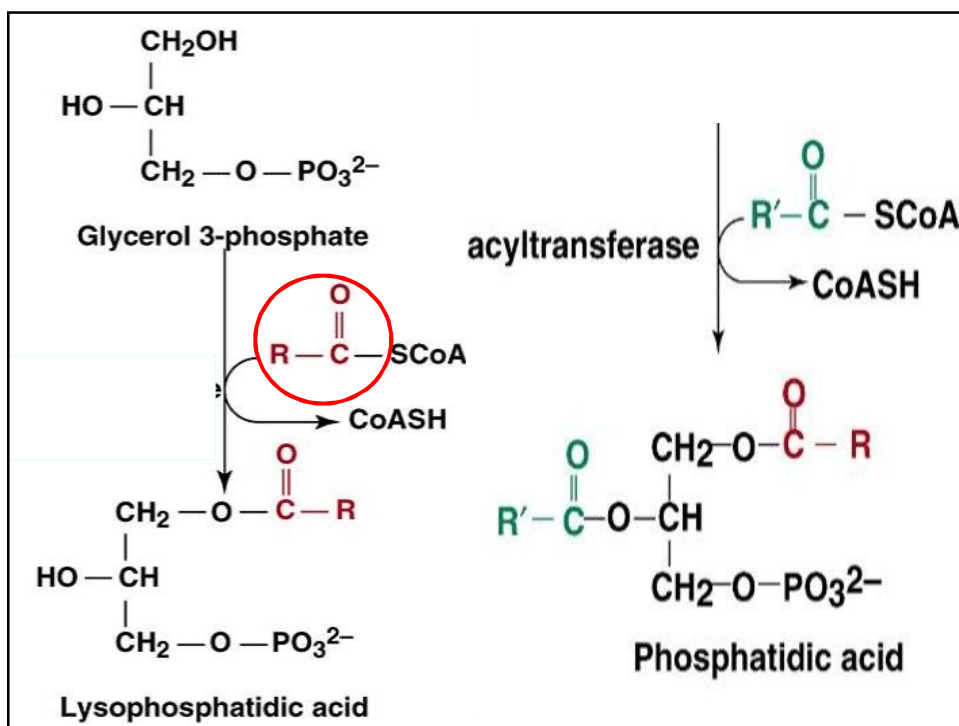
## Biosynthesis of Triacylglycerol

Requires

- Acyl~CoA (Active form of FA)
- Glycerol Phosphate

Why Active form?



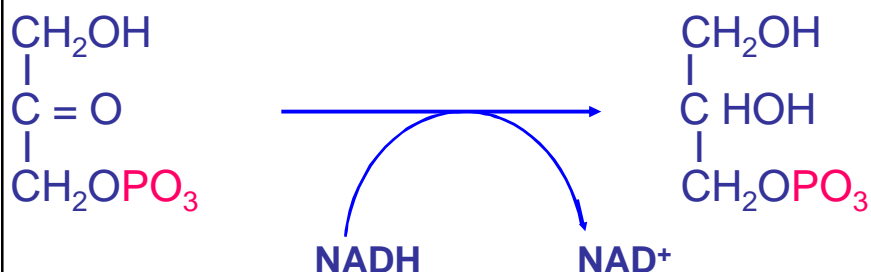


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## Production of Glycerol Phosphate

- Glycerol + ATP  $\xrightarrow{\text{Enz: Glycerol Kinase}}$  Glycerol 3 Phosphate
- Enz: Glycerol Kinase
- Not in Adipose tissue



## Production of Glycerol Phosphate

