

* Fatty acid & TAG metabolism :-

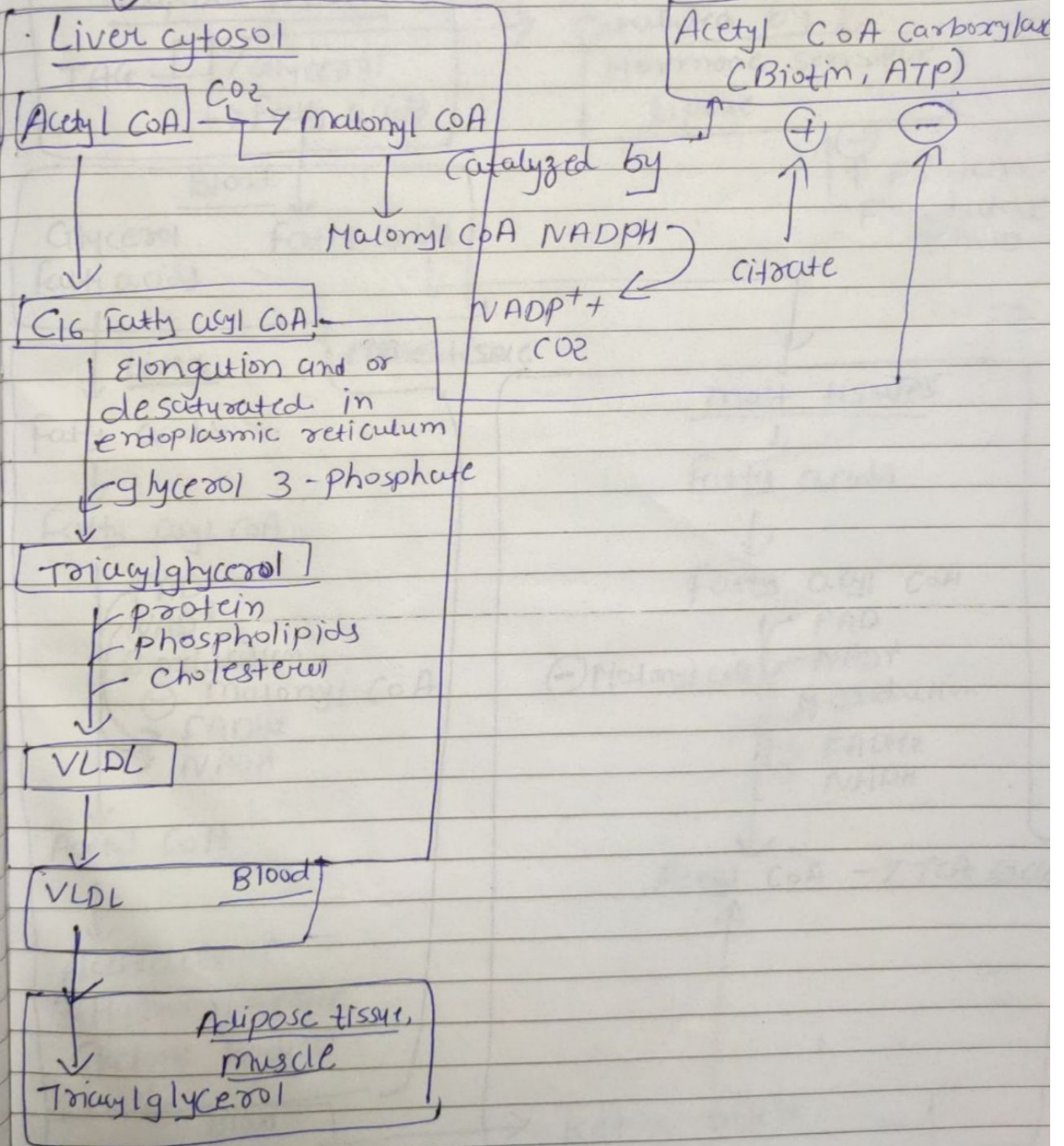
→ TAG Synthesis

Ingestion of excess
Calories as Carbohydrate

↓
↑ Release of insulin

↓
↑ protein phosphatase
activity

⊖ Hormone
Sensitive
lipase



TAG Degradation

↓
calorie deficient diet
↓
↑ Release of catecholamines
↓
↑ protein kinase activity

Adipose tissue
TAG → Glycerol
TAG → fatty acids

⊕ PKA
catalyzed by
Hormone sensitive lipase

⊖ protein phosphatase activity

Blood
Glycerol
fatty acids

Liver
fatty acids

Fatty acyl CoA
FAD
NAD⁺
β oxidation
⊖ Malonyl CoA
FADH₂
NADH

Acetyl CoA
↓
Acetoacetate
3-Hydroxybutyrate
(Ketone bodies)

Blood
ketone bodies

~~most tissue~~

most tissues
↓
fatty acids

Fatty acyl CoA
⊖ Malonyl CoA
FAD
NAD⁺
β oxidation
FADH₂
NADH

Acetyl CoA → TCA cycle

ketone bodies