

FAT AS FUEL - Triglycerides

70kg Adult = 11 kg Fat
150g Glycogen
10g glucose

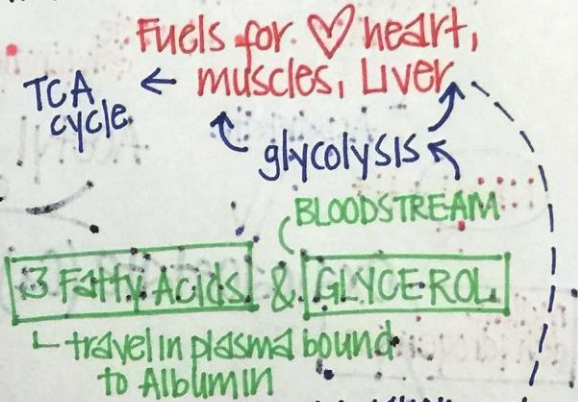
→ Fat droplets → Fat cells → Adipose Tissue
1g FAT = 38 KJ
1g PROTEIN = 21 KJ

1g CARB = 17 KJ

COMMON FATTY ACIDS =
Palmitic Acid C16:0
Stearic Acid C18:0
Oleic Acid C18:1
Linoleic Acid C18:2
Linolenic Acid C18:3

Adrenaline & glucagon

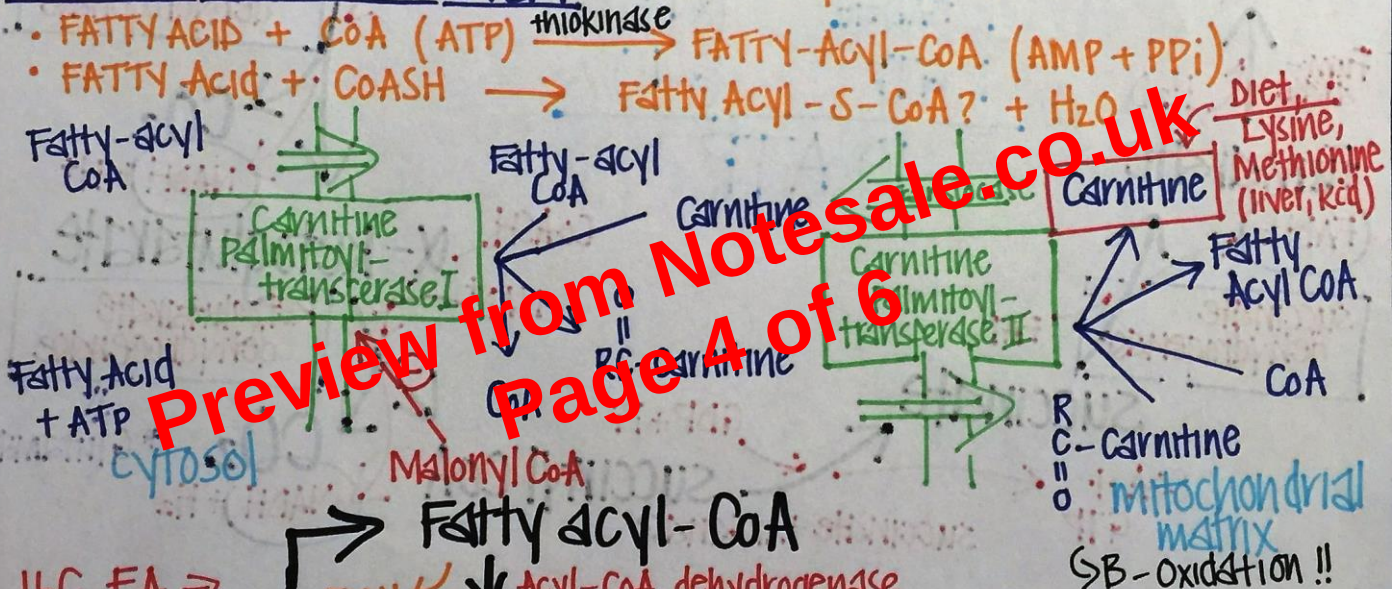
→ LIPASE →



B-Oxidation Pathway

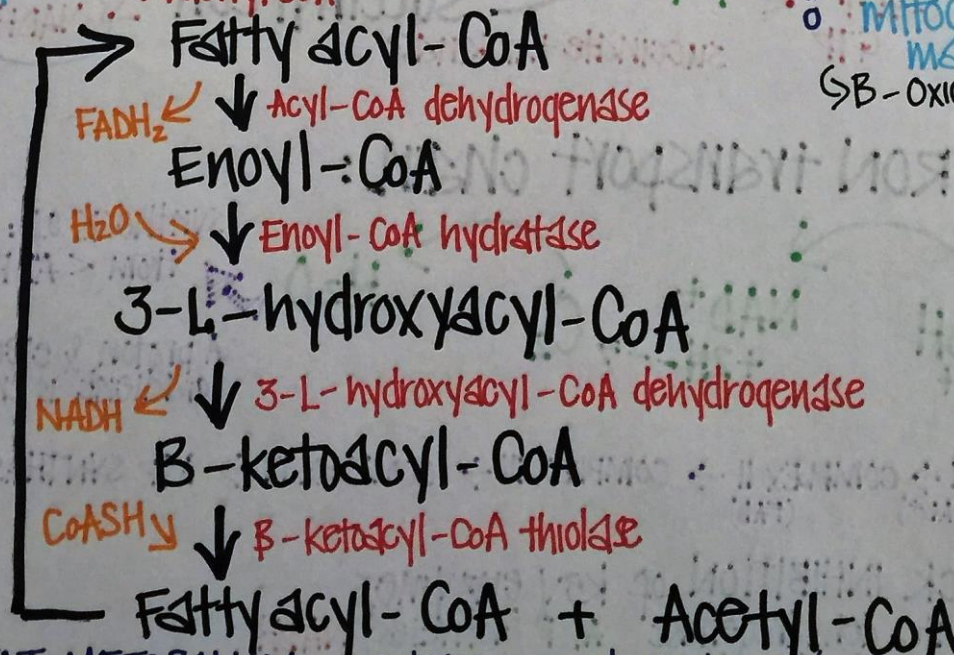
- mitochondrial matrix (transports across membranes)
- CoA thioesters = intermediates → CoA forms thioester bonds with carboxylic acids

CARNITINE SHUTTLE SYSTEM



16C FA ⇒
7 repeats =
7 NADH +
7 FADH₂
& 8 Acetyl-CoA
= 106 ATP !!

ODD CHAIN ?
Enzyme with
vit B12 (cobalt)



Regulation of FAT METABOLISM:

1. Release from adipose tissue (Adr & Glucagon...)
2. Carnitine shuttle rate
3. Reoxidation of cofactors by cytochrome chain.