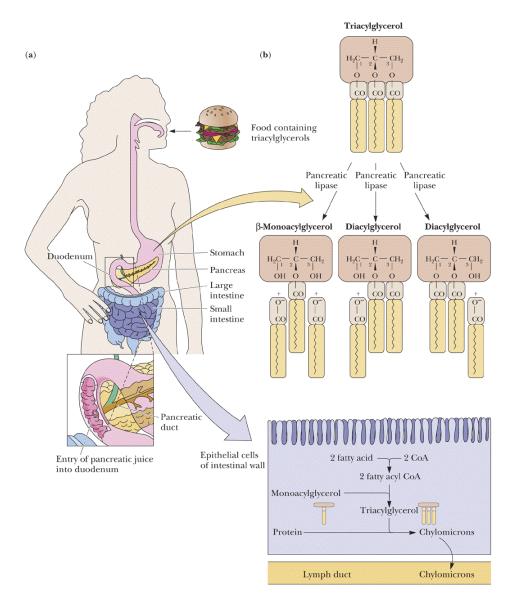
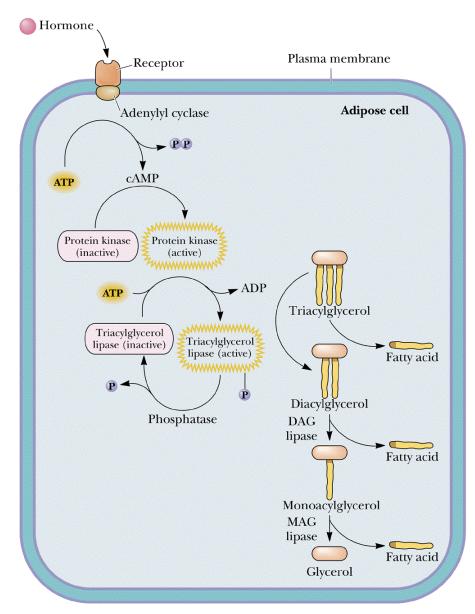
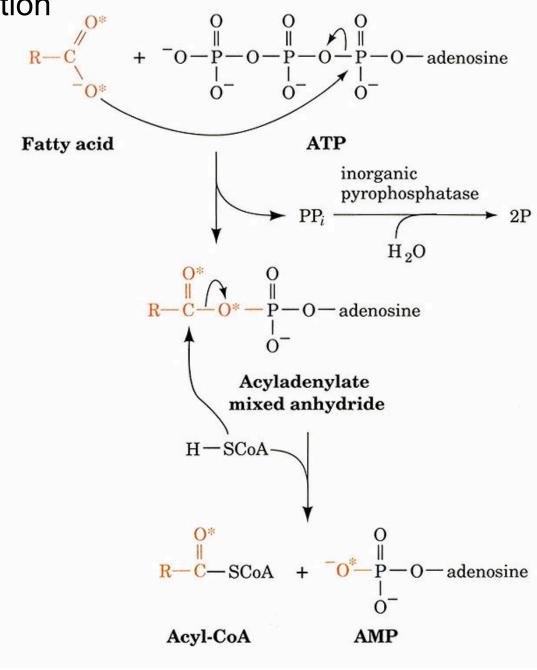
Lipid Metabolism

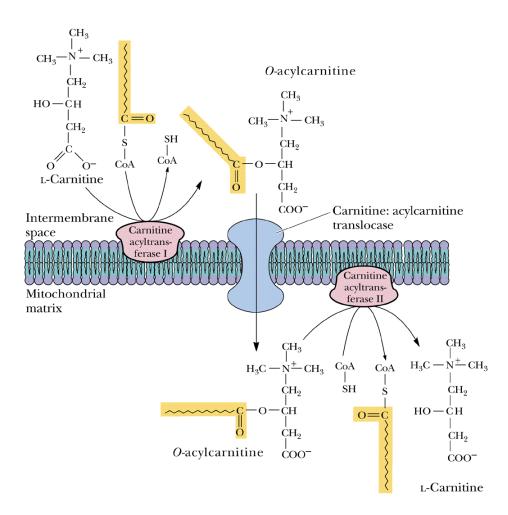
Lipid digestion
Fatty acid activation
Carnitine shuttle
B-oxidation
Fatty acid synthesis
Regulation



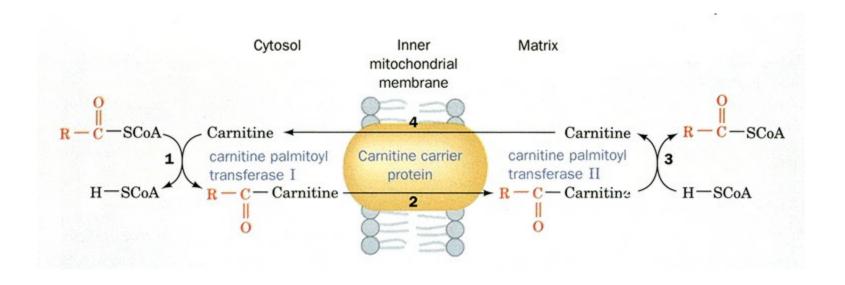


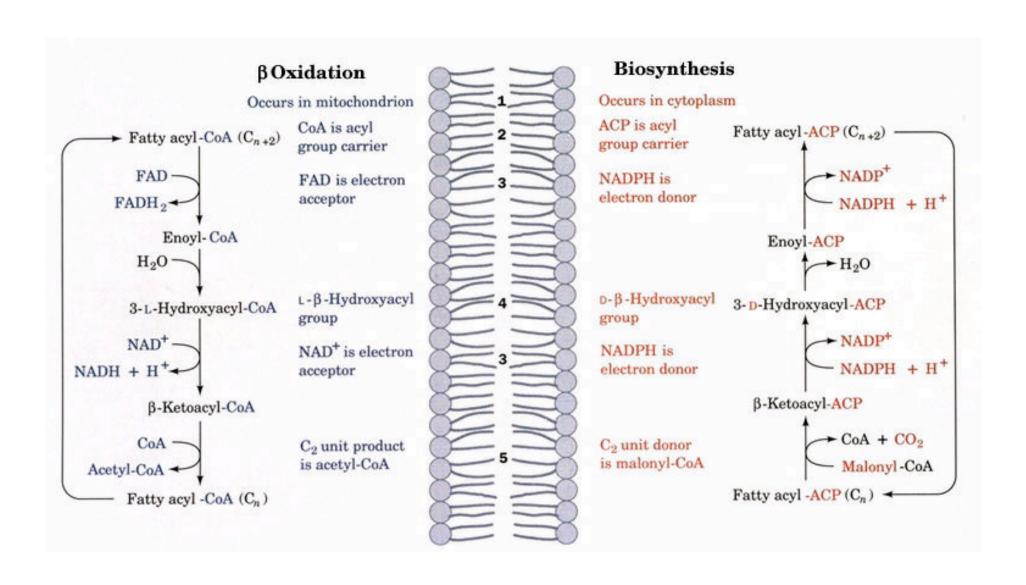
Fatty acid activation





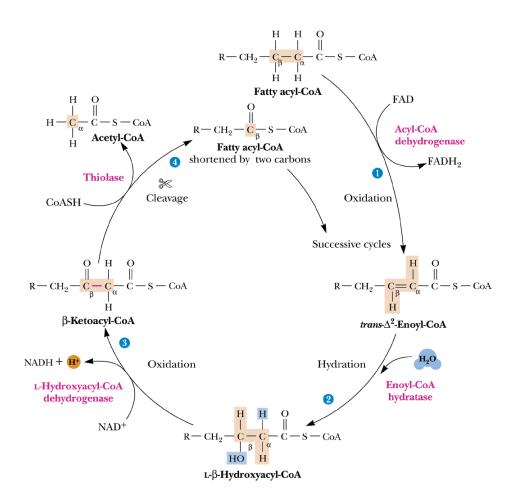
Carnitine Shuttle





β-oxidation

- -Breakdown of F.A.
- -Occurs in mitochondrial matrix



β-oxidation of unsaturated fatty acids

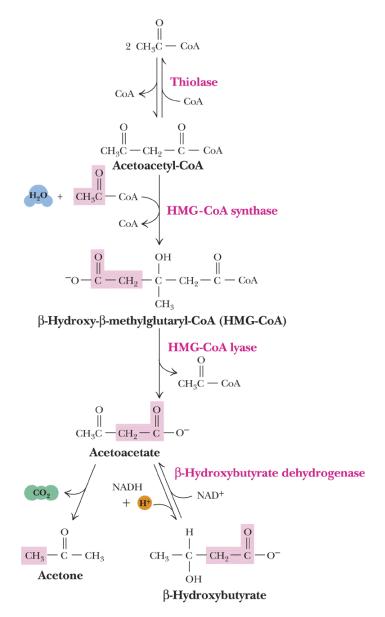
Garrett/Grisham, Biochemistry with a Human Focus Figure 20.14

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6 CH₃C - SCoA

Ketone Bodies

Garrett/Grisham, Biochemistry with a Human Focus Figure 20.19



$$CH_{3} - C - CH_{2} - COO^{-}$$

$$OH$$

$$\beta - Hydroxybutyrate$$

$$O$$

$$CH_{3}C - CH_{2} - COO^{-}$$

$$Acetoacetate$$

$$Succinyl-CoA$$

$$Succinate$$

$$O$$

$$CH_{3}C - CH_{2} - COO^{-}$$

$$Acetoacetate$$

$$Succinate$$

$$O$$

$$CH_{3}C - CH_{2} - C - CoA$$

$$Acetoacetyl-CoA$$

$$CoA$$

$$CoA$$

$$CoA$$

$$CoA$$

$$CoA$$

$$CoA$$

$$Acetoacetyl-CoA$$

$$CoA$$

$$Acetoacetyl-CoA$$

$$Acetoacetyl-CoA$$

Fatty Acid Synthesis

-Cytoplasm

-Acetyl-CoA carboxylase

