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**β Oxidation of
fatty acid**

By

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Definition

- Beta-Oxidation may be defined as the oxidation of fatty acids on the beta-carbon atom.
- This results in the sequential removal of a two carbon fragment, acetyl CoA.

Three stages

- Activation of fatty acids occurring in the cytosol
- Transport of fatty acids into mitochondria
- Beta-Oxidation proper in the mitochondrial matrix
- Fatty acids are oxidized by most of the tissues in the body.
- Brain, erythrocytes and adrenal medulla cannot utilize fatty acids for energy requirement.

- Activation of FA: This proceeds by FA thiokinase (acyl COA synthetase) present in cytosol Thiokinase requires ATP, COA SH, Mg⁺⁺.
- The product of this reaction is FA acyl COA and water.