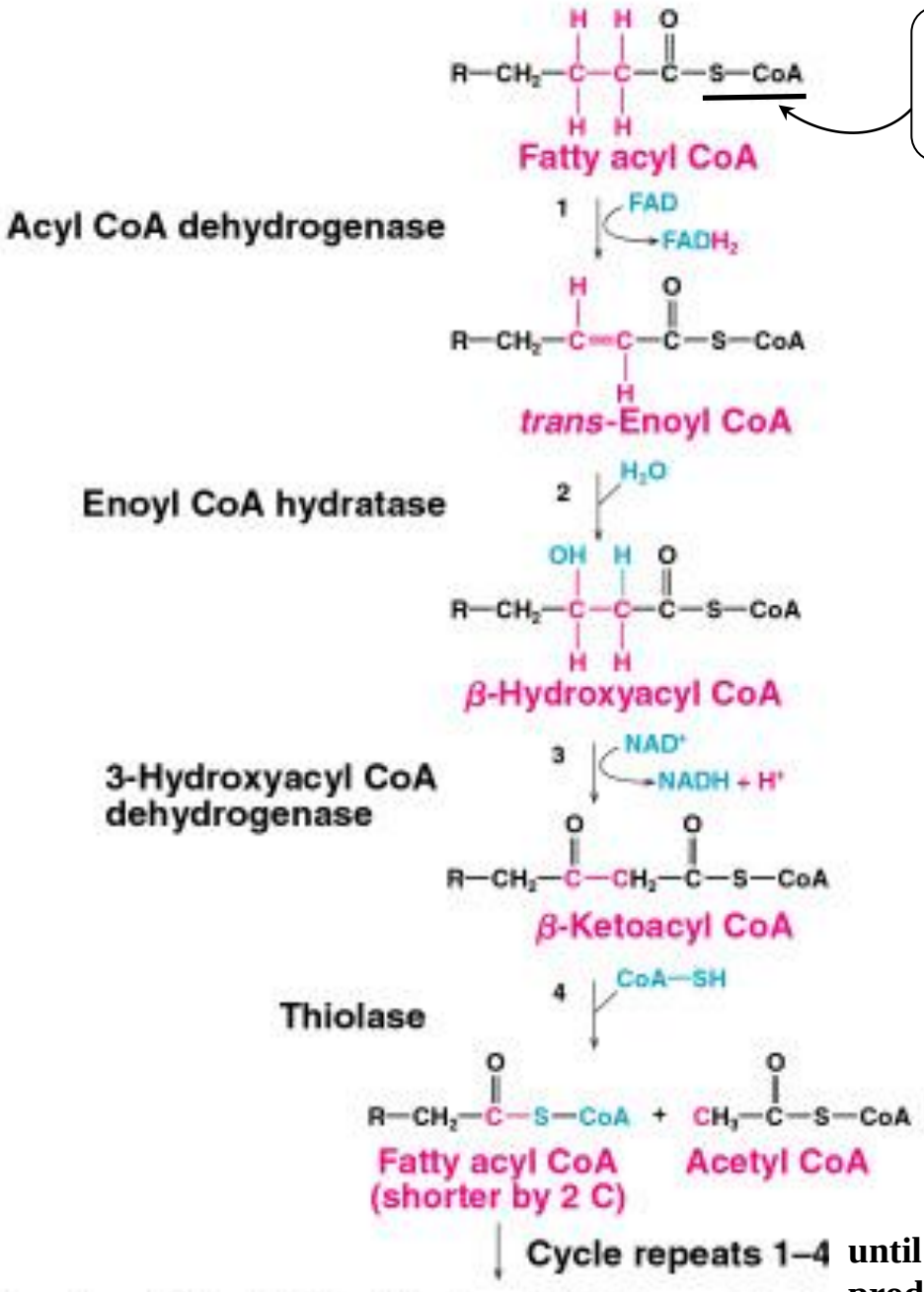
SUMMARY OF β -OXIDATION



until two AcetylCoA are produced in Step 4 then it stops.

Summary of fatty acid metabolism:

Number of acetylCoA = n/2, where n=# carbon atom in fatty acid

Number of cycles = n/2 – 1

Each cycle produces 1 $FADH_2$ and 1 NADH

Total ATP produced:

one acetylCoA = 10 ATP by the citric acid cycle

one $FADH_2$ = 1.5 ATP by the electron transport chain

one NADH = 2.5 ATP by the electron transport chain

Myristic acid:

$C_{14}H_{28}O_2$	**activation**			**- 2 ATP**
n=14;	**n/2 = 7 acetyl CoA**	**7 x 10 ATP**	**=**	**+ 70 ATP**
n/2 –1 = 6 cycles;	**6 $FADH_2$**	**6 x 1.5 ATP**	**=**	**+ 9 ATP**
	6 NADH	**6 x 2.5 ATP**	**=**	**+ 15 ATP**
TOTAL				***92 ATP***

KETOGENESIS - PRODUCTION OF KETONE BODIES

Keto acidosis occurs from over production and under utilization of ACETYLcoA

Keto acidosis occurs in starvation, diabetes and Atkinson diet.

KETONE BODIES