

ALCOHOL
(METABOLISM).

→ WALKER SAID :-
ALCOHOL CAN BE ;
FOOD , DRUG OR POISON DEPENDING ON
AMOUNT.

IN SMALL QUANTITY GOOD
FOR HEALTH.
HOWEVER SLOWLY THE CONSUMPTION INCREASES
CAUSING HARMFUL EFFECTS.

→ 98% ABSORBED IN STOMACH , INTESTINE
2% ONLY EXCRETED.

LIVER
ALCOHOL $\xrightarrow[\text{NAD}^+ \rightarrow \text{NADH} + \text{H}^+]{\text{ALCOHOL DEHYDROGENASE}}$ ACETALDEHYDE.

→ BESIDE ADH ; MICROSOMAL ETHANOL OXIDISING
SYSTEM (MEOS), IS ALSO RESPONSIBLE FOR METABOLISM.

→ ACETALDEHYDE $\xrightarrow[\text{NADH} \rightarrow \text{NADH} + \text{H}^+]{\text{ALDEHYDE DEHYDROGENASE}}$ ACETIC ACID
ENTERS KREB CYCLE.

→ SINCE ACTIVITY OF ALDEHYDE DEHYDROGENASE
IS LOW ; ACETALDEHYDE STARTS ACCUMULATING.

→ DISULFIRAM, A DRUG IS USED FOR TREATMENT
OF ALCOHOLISM, INHIBITS ALDEHYDE DEHYDROGENASE.

#) BIOCHEMICAL CHANGES IN ALCOHOLISM.

→ BOTH DEHYDROGENASE INVOLVES CONSUMPTION OF NAD^+ &
PRODUCES HIGH $\text{NADH} + \text{H}^+$ RATIO.

SOME METABOLIC ALTERATION :-

LACTATE WHICH CAUSES "LACTIC ACIDOSIS".

2) **HYPOGLYCEMIA**, DUE TO DECREASED PYRUVATE & OXALOACETATE

3) **CITRIC ACID IS IMPAIRED**; SINCE OXALOACETATE & NAD⁺ IS

∴ ACETYL COA ACCUMULATES → **HYPER LIPEDEMIA.**

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KETO GENESIS. **CHOLESTRO GENESIS** **FATTY ACID SYNTHESIS.**

4) ↑ Serum URIC ACID, DUE TO LESS EXCRETION.

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DUE TO **LACTIC ACIDOSIS**

5) ACETALDEHYDE INTERFERES WITH FUNCTI. OF NEUROTRANSMITTER,
CAUSING NEUROLOGICAL DEPRESSION.

6) CAUSES; HEADACHE, NAUSEA, TACHYCARDIA, REDUCED BP etc.

#) EFFECTS OF CHRONIC ALCOHOLISM:-

↳ ASSOCIATED WITH , CIRRHOSIS OF LIVER,
NEURODEGENERATIVE CHANGES
CARDIOMYOPATHY
DIURESIS
IMPOTENCE etc.