

## Blood, urine ethanol and acetaldehyde levels from six different alcoholic beverages and effect of Liv.52

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Blood/urine ethanol and acetaldehyde levels were estimated after fixed dose of 43 gms of ethanol in the form of Whisky, Rum, Vodka, Gin, wine and Beer in six moderate alcohol users. 43 gms of ethanol was divided into 2 pegs and consumed within 1 hour on day 0 and 15 days after Liv.52 treatment. Blood samples were collected every hour upto six hours and urine samples at 0-3 hours and 3-6 hours. Blood/urine ethanol and acetaldehyde were estimated by Gas Chromatography.

Significantly higher ethanol levels were observed after ingestion of Rum and ethanol levels were lowest with Beer. Acetaldehyde levels correlated well with ethanol levels on day 0. Irrespective of type of alcoholic beverage consumed, Liv.52 treatment for 15 days significantly reduced blood acetaldehyde and increased urinary excretion four fold. The possibility of destabilisation of acetaldehyde protein adducts in liver with Liv.52 treatment could be the probable mechanism in reducing the blood acetaldehyde levels in moderate alcohol users.

**Table 1:** Blood acetaldehyde levels before and 15 days after Liv.52 treatment in moderate alcohol users (ug/ml) (Mean  $\pm$  SE)

N=6	1 hour	2 hour	3 hour	4 hour	5 hour	6 hour
Day 0	5.40 $\pm$ 0.32	5.29 $\pm$ 0.25	4.70 $\pm$ 0.20	4.30 $\pm$ 0.21	3.87 $\pm$ 0.24	3.32 $\pm$ 0.21
Day 15	6.51 $\pm$ 0.29	5.00 $\pm$ 0.19	4.20 $\pm$ 0.19	3.30 $\pm$ 0.22*	2.63 $\pm$ 0.20*	2.05 $\pm$ 0.19*

\* $p < 0.05$  (Unpaired 't' test)

**Table 2:** Urine acetaldehyde excretion before and 15 days after Liv.52 treatment (ug) (Mean  $\pm$  SE)

N=6	0-3 hour	3-6 hour
Day 0	518.37 $\pm$ 73.01	198.41 $\pm$ 22.39
Day 15	1455.83 $\pm$ 196.33*	1057.83 $\pm$ 89.82*