

CHANGES IN PLASMA GLUTATHIONE
S-TRANSFERASE B1 CONCENTRATION AFTER
ALCOHOL INGESTION IN MAN: A MEASURE OF
HEPATOCELLULAR SENSITIVITY TO CHRONIC
ALCOHOL EXCESS

PETER C. HAYES^{a*}, JOHN D. HAYES^b, AMANDA J. HUSSEY^b, IAN A. D.
BOUCHIER^a and GEOFFREY J. BECKETT^b

*University Departments of Medicine^a and Clinical Chemistry^b, The Royal Infirmary,
Edinburgh EH3 9YW, Scotland, U.K.*

(Received 20 June 1989)

Glutathione S-transferase B₁ concentration was measured in plasma at regular time intervals after the ingestion of 80 g of alcohol in 6 healthy volunteers and 9 heavy drinkers. The concentration of GST B₁ in plasma rose significantly in the heavy drinkers 60 min after alcohol ingestion but GST B₁ concentrations remained unchanged in the healthy volunteers. The differences in GST B₁ response to alcohol appeared to be due to an impairment of hepatocellular integrity in the heavy drinkers and not due to enzyme induction. It is suggested that the same alcohol challenge produced more hepatocellular damage in heavy drinkers than in healthy volunteers.

KEY WORDS: Glutathione S-transferase, liver, alcohol, human.