

Effect of concurrent saccharin intake on ethanol consumption by high-alcohol-drinking (UChB) rats

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This study examined the effect of concurrent presentation of a highly palatable saccharin solution on ethanol consumption during the acquisition or maintenance of ethanol drinking by high-alcohol-drinking (UChB) rats. Rats were exposed to ethanol (10% v/v) and water under a home cage, two-bottle, free-choice regimen with unlimited access for 24 hours/day. After 7 days (acquisition) of ethanol exposure, a third bottle containing saccharin (0.2% w/v) was concomitantly offered for an additional seven consecutive days, and the same process was repeated after 3 months (maintenance) of ethanol exposure. We found that concurrent saccharin intake significantly reduced ethanol intake by UChB rats after 7 days of ethanol exposure indicating that preference for sweet taste tends to override the preference for ethanol. However, the concurrent saccharin presentation to rats after 3 months of stable ethanol consumption did not reduce ethanol intake, whereas their saccharin consumption reached polydi