Fenofibrate - A lipid-lowering drug - Reduces voluntary alcohol drinking in rats

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The administration of disulfiram raises blood acetaldehyde levels when ethanol is ingested, leading to an aversion to alcohol. This study was aimed at assessing the effect of fenofibrate on voluntary ethanol ingestion in rats. Fenofibrate reduces blood triglyceride levels by increasing fatty acid oxidation by liver peroxisomes, along with an increase in the activity of catalase, which can oxidize ethanol to acetaldehyde. UChB drinker rats were allowed to consume alcohol 10% v/v freely for 60 days, until consumption stabilized at around 7g ethanol/kg/24h. About 1-1.2g ethanol/kg of this intake is consumed in the first 2h of darkness of the circadian cycle. Fenofibrate subsequently administered (50mg/kg/day by mouth [p.o.]) for 14 days led to a 60-70% ($p<0.001$) reduction of 24-h ethanol consumption. When ethanol intake was determined within the first 2h of darkness, the reduction was 85-90% ($p<0.001$). We determined whether animals chronically allowed access to ethanol