

Heredity behind subjective effects of alcohol

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Scientists have long known that people who have a close relative with alcohol problems themselves run an increased risk of starting to abuse alcohol. The reason for this has not been known, but a new study from the University of Gothenburg, Sweden, provides part of the answer. The study shows that people who have a close relative who is an alcoholic react more positively to alcohol than other people.

The study has been published in the scientific journal [Alcohol: Clinical & Experimental Research](#), and is the first to have investigated a large group of people who have a close relative with type I alcoholism. Previous research in the field has been based on a more limited population, such as sons of alcoholic fathers.

There are two types of alcoholism, type I and type II. Type I [alcohol abuse](#) depends to a large extent on the interaction of genetic factors with the environment, such as social environment and life events, while type II alcohol abuse involves a large genetic risk of developing alcohol addiction, independent of environment.

"The study is unique in the way in which we have studied how children of type I alcoholics experience the effects of alcohol and compared this with the experiences of the [control group](#), which consisted of people who had no history of alcohol abuse in the family. The group of people who were children of type I alcoholics were healthy and had no mental health problems, and they did not have [alcohol problems](#) themselves", says Anna Söderpalm-Gordh, scientist at the Sahlgrenska Academy.

The scientists gave moderate amounts of either alcohol or placebo in the form of juice to a group of 51 participants, 34 men and 17 women. The drink that any participant received was determined at random. Twenty-nine of the participants were members of the control group, while 22 were members of the group for whom a member of the family had type I alcoholism. Members of both groups then described how they experienced the effects of the alcohol.

The scientists discovered that participants with a family member with type I alcoholism reported more positive and more stimulating effects from drinking alcohol than participants in the control group. These individuals also wanted to drink more alcohol than those in the group without any heredity effects. This supports the hypothesis that children of type I alcoholics inherit some form of positive experience of drinking alcohol.

"These results show that some of us are more responsive to the rewarding effects of alcohol: we react to alcohol more strongly and more positively than others. This can, in turn, lead to increased consumption and a greater risk of alcohol abuse. The results also suggest that children of type I alcoholics, who have been considered to run a smaller hereditary risk of developing alcohol addiction, may be in the danger zone for developing alcoholism", says Anna Söderpalm-Gordh.

She believes that these results are important, particularly against the background of the fact that around 40% of the population of Sweden have a close family member who has problems with alcohol.

"Be aware of how you react to alcohol. You should consider cutting down and not drinking as much as other people if you notice that you experience alcohol as more positive than your friends," she says, and continues:

"Each person's individual experience of alcohol is an important tool in understanding why certain people develop alcoholism and it may be a marker in itself for how an individual's alcohol consumption may develop. Our discovery is part of the preventative work that can help a certain group of people who run the risk of drinking too much alcohol."

Provided by University of Gothenburg

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