

Social support reduces genetic risk factors that can lead to alcohol use problems

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New research shows that social support from friends can shield people at risk of alcohol use disorders.

The study, which was published in the *Journal of Abnormal Psychology*, found that the combination of genetic predisposition and [personality type](#) can lead to problematic [alcohol](#) consumption. Having strong social support from friends protected against excessive [drinking](#).

"People with alcohol use problems can be stigmatized, and addiction is often thought of as a personal choice or moral failure. Genes play an important role in alcohol consumption, and understanding how genes link to complex behaviors and interact with the environment lets us identify targeted ways to prevent problems or intervene," said Jinni Su, assistant professor of psychology at Arizona State University and lead author on the study. "Genes matter but are not our destiny."

Genetic risk for problem drinking behaviors was determined using a rating called a genome-wide polygenic score. This aggregate score is based on how an entire genome is associated with a specific trait—in this case alcohol use.

Participants with an elevated [genetic risk](#) for problem drinking behaviors were likely to have sensation-seeking personalities. People with this personality trait thrive on seeking out new experiences. The researchers found that the combination of genetic risk and sensation-seeking personalities were associated with higher levels of alcohol use.

"This finding gives us a possible pathway to help individuals with genetic risk channel their predisposition in healthy ways. Knowing that people with a higher genetic risk for alcohol misuse also tend to have sensation-seeking personality traits means that we can encourage them to engage in new and fun activities like rock climbing instead of drinking," Su said.

The study also examined how people's environment affected their genetic risk for problem drinking. The researchers examined how social relationships affected the combination of genetic risk and [personality](#)

trait on alcohol consumption. Strong friendships were protective against problem drinking in people who had elevated genetic risk and sensation-seeking tendencies.

"Genetic risk does not influence everyone the same way and can be affected by our environment, like social relationships. Some people with a genetic predisposition for alcohol misuse are more susceptible to having poor social relationships. But, [social support](#) can also buffer genetic risk, reducing the likelihood of bad outcomes like alcoholism," Su said.

In addition to Su, the research team consisted of Sally I-Chun Kuo, Fazil Aliev, and Danielle Dick of Virginia Commonwealth University; Grace Chan of the University of Connecticut; Howard Edenberg of Indiana University; Chella Kamarajan and Jacquelyn Meyers of the State University of New York Downstate Medical Center; Vivia McCutcheon of Washington University, St. Louis; Marc Schuckit of the University of California, San Diego; and Jay Tischfield of Rutgers University.

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More information: Jinni Su et al, The associations between polygenic risk, sensation seeking, social support, and alcohol use in adulthood., *Journal of Abnormal Psychology* (2021). [DOI: 10.1037/abn0000568](https://doi.org/10.1037/abn0000568)

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