A hallucinogenic drug popular in the 1960s could help in finding a medical treatment for alcoholism, a study says.

A team at the University of California, San Francisco, said ibogaine blocked alcohol cravings in rats by boosting a brain protein.

It was already thought it could combat addiction, but scientists have been wary as the drug is also toxic.

It is hoped a treatment which works in the same way as ibogaine but without the side effects could be developed.

In the UK, about 2.9 million adults - 7% of the population - are alcohol dependent.

Alcohol misuse is linked to 22,000 deaths a year and costs the economy £20bn a year in lost production and treatment.

People who misuse alcohol tend to be treated through counselling, although there are a few drugs available which are sometimes used in conjunction with rehabilitation programmes.

Reduced drinking

The research team believes the findings, published in the Journal of Neuroscience, could lead to a change in approach to treating alcohol addiction.

Report co-author Patricia Janak said they found the drug worked by increasing the level of the GDNF protein in the brain.

Previously, scientists were aware the drug may reduce dependency but did not fully understand how it worked.

She said the team induced the rats to consume alcohol and found once they were injected with ibogaine their GDNF levels increased and they reduced their drinking.

She said the effect may stop people "falling off the wagon" as when rats were denied alcohol for two weeks those given ibogaine had a much lower craving when offered alcohol.

There is a link to craving in the brain and if we can influence that it is feasible to develop a drug treatment

Dr Bruce Ritson
"The discovery that ibogaine reduced binge drinking after a period of abstinence was an exiting finding for us because this is the type of behaviour in alcoholics for which very few effective drugs exist."

While the drug remains unlicensed in the UK and much of the rest of the world, it is used to treat addiction in several private clinics in the Caribbean and Mexico.

But Alcohol Concern said the findings should be treated with caution.

'Shed light'

A spokeswoman said: "This type of study could prove useful in the long term to shed light on the relationship between the brain and alcohol intake.

"However, very little can be drawn from a single animal-based study at this stage."

A further note of caution was added by Martin Plant, professor of addiction studies at the University of the West of England, who said: "People become addicted to alcohol for many different reason. The idea that taking tablets cures the problem is naive."

Dr Bruce Ritson, of the Medical Council on Alcohol, said: "Addiction is a complex area and I would not believe it is the whole answer."