

Peril of drinking to relax: Could that well-earned glass turn you into an alcoholic?

- **Scientists say desire for pleasure coupled with a low sense of risk can lead to drinking problems**
- **Findings could help those at risk from stress-related alcohol and drug disorders**
- **Researchers excited as study reveals how the brain processes threat and reward conflicts**

By Nick Mcdermott

Reaching for a glass of wine following a long day is a habit enjoyed by millions. But scientists think they may have solved the mystery of why that one glass could turn into a drinking problem – it is all down to how we cope with stress. They have discovered that stress-related problem drinking only occurs in people who have a specific combination of brain functioning.

The new research could help doctors identify people more likely to develop alcohol problems

Previous studies have focused on how the pleasure we get from drinking alcohol activates the reward centres of the brain.

But this study found a desire for pleasure coupled with a low sense of risk could lead to problems with alcohol in future. Scientists carried out MRI scans on 200 university students to look at the differences in the functioning of reward and threat circuits in their brain.

While coping with problems such as failing exams and bad relationships, only those with a heightened drive to seek immediate reward coupled with a weaker sense of risk were likely to consume increased amounts of alcohol.

Senior author Ahmad Hariri, a professor of psychology and neuroscience at Duke University, said: 'Imagine the push and pull of opposing drives when a mouse confronts a hunk of cheese in a trap.

'Too much drive for the cheese and too little fear of the trap leads to one dead mouse.'

He added: 'We're very excited about these findings as they nicely bring together our parallel research on individual differences in threat and reward processes.'

Yuliya Nikolova, lead author of the study, said the findings could help those particularly at risk from alcohol and drug abuse disorders in the wake of stress.

She added that, in future, doctors could see if someone was susceptible to developing a stress-related drink problem and intervene.

The research was published in the journal *Biology of Mood & Anxiety Disorders*.

Over the past decade, the number of drink-related deaths in men and women has soared by more than a quarter and ministers say it is a major public health problem.

As many as 8,664 people died as a direct result of alcohol in 2009, compared with 6,884 in 2000, according to the Office for National Statistics.

But experts warn that this is only a fraction of the true figure.

They say as many as 40,000 people die every year from alcohol-related health problems such as strokes, heart attacks and cancer.