Study: How the brain masks alcohol impact

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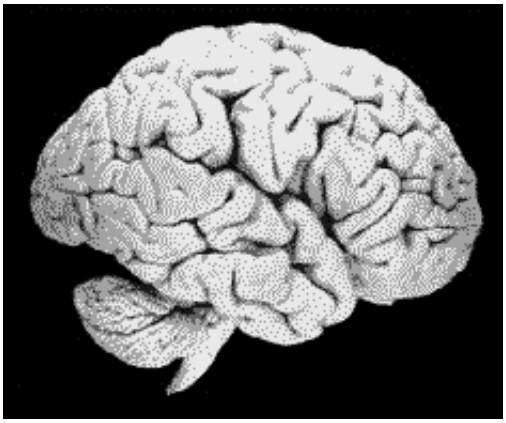

Dartmouth College researchers say they've discovered more about how the brain works to mask or suppress the impact alcohol has on motor skills.

"We found the brain does a pretty good job at compensating for the effect alcohol has on (its) ability to process the visual information needed to adjust motor commands," said John Van Horn, a research associate professor of psychological and brain sciences and the lead author of the paper.

The study found alcohol selectively suppresses cognitive activity in the frontal and posterior parietal brain regions that are associated with the brain's ability to monitor and process visuomotor feedback.

Van Horn said the study is one of the first ever to use neuroimaging to directly illustrate the suppression effect in the brain.

"We know that alcohol has a global effect on the brain," he said. "This study was unique in that it isolated the specific network that underlies the processing and translation of visual and motor commands. The poor coordination one feels after a couple of drinks is due to the poor feedback processing in brain areas critical for updating the mental models for motor action."

The study appeared online in the journal NeuroImage.