



INDIANA UNIVERSITY

BORKENSTEIN
COURSE

Center for Studies
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Cognitive and Psychomotor Effects of Alcohol

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This presentation considers what aspects of human behavior are controlled by which parts of the brain, the effects alcohol produces on these parts of the brain and the consequences for activities involved in safe driving. Alcohol has non-specific effects on cell structure and function that interfere with neurotransmission, but also promotes release of excitatory transmitters such as dopamine and serotonin, which account for the pleasurable sensations associated with alcohol use. It also interacts with the GABA receptor. This is the brain's major inhibitory pathway and accounts for some of the psychomotor deficits, slowed responses, and dulled cognitive effects associated with alcohol. The presentation will also cover the complexity of the driving task, identify which components are most affected by alcohol, and review the history of field tests developed to assess impairment and intoxication.