Stimulants may have detrimental effects on muscle control

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Researchers have found that current or past use of methamphetamine or other stimulants may lead to psychomotor control deficits, or a reduced ability to control physical movement.

Study participants were asked to hold their dominant arm in various positions, one at a time, and maintain each position for 60 seconds, with a 30-second rest between each. Investigators found impairments in terms of both tremor and arm-droop in heavy stimulant users. Tremor, but not arm-droop, persisted for at least 18 months following withdrawal from stimulant use.

"Psychomotor deficits can make it difficult to perform everyday tasks, and the detection of psychomotor deficiencies might be considered an early marker for movement disorders," said Prof. Andrew Parrott, senior author of *The Journal of Clinical Pharmacology* study.

More information: Luke A. Downey et al, Psychomotor Tremor and Proprioceptive Control Problems in Current and Former Stimulant Drug Users: An Accelerometer Study of Heavy Users of Amphetamine, MDMA, and Other Recreational Stimulants, *The Journal of Clinical Pharmacology* (2017). DOI: 10.1002/jcph.925

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