

# Patterns of change in withdrawal symptoms, desire to smoke, reward motivation and response inhibition across 3 months of smoking abstinence

Journal Article <sup>1)</sup>

## Aims

We have demonstrated previously that acute smoking abstinence is associated with lowered reward motivation and impaired response inhibition. This prospective study explores whether these impairments, along with withdrawal-related symptoms, recover over 3 months of sustained abstinence.

## Design

Participants completed a 12-hour abstinent baseline assessment and were then allocated randomly to quit unaided or continue smoking. All were re-tested after 7 days, 1 month and 3 months. Successful quitters' scores were compared with those of continuing smokers, who were tested after ad libitum smoking.

## Setting

Goldsmiths, University of London. Participants A total of 33 smokers who maintained abstinence to 3 months, and 31 continuing smokers.

## Measurements

Indices demonstrated previously in this cohort of smokers to be sensitive to the effect of nicotine versus acute abstinence: reward motivation [Snaith-Hamilton pleasure scale (SHAPS), Card Arranging Reward Responsivity Objective Test (CARROT), Stroop], tasks of response inhibition [anti-saccade task; Continuous Performance Task (CPT)], clinical indices of mood [Hospital Anxiety and Depression Scale (HADS)], withdrawal symptoms [Mood and Physical Symptoms Scale (MPSS)] and desire to smoke.

## Findings

SHAPS anhedonia and reward responsivity (CARROT) showed significant improvement and plateaued after a month of abstinence, not differing from the scores of continuing smokers tested in a satiated state. Mood, other withdrawal symptoms and desire to smoke all declined from acute abstinence to 1 month of cessation and were equivalent to, or lower than, the levels reported by continuing, satiated smokers. Neither group showed a change in CPT errors over time while continuing smokers, but not abstainers, showed improved accuracy on the anti-saccade task at 3 months.

## Conclusion

Appetitive processes and related affective states appear to improve in smokers who remain nicotine-free for 3 months, whereas response inhibition does not. Although in need of replication, the results suggest tentatively that poor inhibitory control may constitute a long-term risk factor for relapse and could be a target for intervention.

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[Abstinence](#), [Category-Addiction](#), [E-Cigarette](#), [Folder-E-Cigs](#), [Leans-Neutral](#), [Nicotine](#), [recovery](#), [RESEARCH](#), [response inhibition](#), [reward motivation](#), [Smoking](#), [withdrawal symptoms](#)

<sup>1)</sup>

Dawkins , et al. (2009), Patterns of change in withdrawal symptoms, desire to smoke, reward

motivation and response inhibition across 3 months of smoking abstinence,

<http://onlinelibrary.wiley.com/doi/10.1111/j.1360-0443.2009.02522.x/abstract> accessed: 2013-11-11

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