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British Association for the Advancement of Science, Salford, UK, September 2003

Flickering chequerboard curbs smokers' cravings

Visual noise dampens images that feed tobacco habit.
12 September 2003

JOANNE BAKER



Watching a flickering chequerboard pattern curbs smokers' cravings, a new study finds¹. It stops the mind dwelling on the visual images that conjure the anticipated pleasure of tobacco.

"We hope to come up with a programme for a handheld computer that can be used as a crutch," psychologist Jon May of the University of Sheffield told this week's British Association Festival of Science in Salford.

May's team made smokers imagine different scenes and sounds, such as a sunset or a baby crying, while monitoring their cravings. Others watched an abstract grid of scrambled black and white squares flickering on and off 1,000 times a second.

Mental images can amplify a craving.

© GettyImages

Smokers who held vivid pictures in their minds lost their desire for a cigarette within the first minute. At

the end of the study, they reported even lower cravings than satiated smokers. Watching the simple flickering dot display worked almost as well; thinking of sounds alone was not effective.

Psychologists often use displays of flickering dots to subdue pictures held in the memory by supplying visual 'noise'. Similar effects occur with background sound and audio memories.

May's team hopes to use this tool to break smokers' habits. Cravings start out as a simple thought, such as "I am hungry". This, the researchers argue, is then amplified by associating it with imagined pictures, smells and sensations, such as warm loaves of bread, until it becomes overpowering. Distracting the mind from conjuring up vivid associations can stop a craving

in its tracks.

"We hope to study race-track and slot-machine gamblers," says May. His team will also follow smokers using their imaging method to see if they do quit.

Joanne Baker is a British Association Media Fellow

References

1. May, J., Andrade, J., Panabokke, N. & Kavanagh, D. Images of desire: cognitive models of craving. *Memory*, in press, (2003). [**Article**]

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