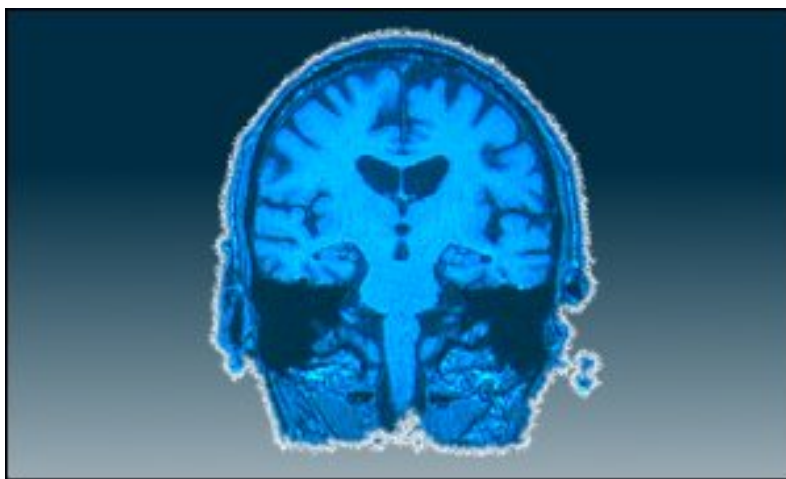


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Part of the brain was found to be linked to impulse

If you cannot stop acting on impulse it might not be your fault - there could be a defective section in your brain.

Scientists at Cambridge University believe they have discovered the part of the brain associated with impulsive behaviour.

And they said this could help them develop better treatments for the sorts of excessive impulse behaviour which can lead to drug addictions or attention deficit disorder (ADHD) in children.

Scanned brains

The research, published in the journal *Science*, aimed to try and discover why some people were unable to resist acting on impulse, while others were able to hold back and wait for greater rewards.

The researchers scanned the brains of people who showed extreme impulse behaviour, such as drug addicts and found that a key part of their brain was not working properly.

They tested their theory on rats by disabling this section of the brain - the nucleus accumbens which is found at the base of the forebrain.

Immediate rewards

They found that unlike normal rats these specially modified animals preferred to take small immediate rewards of food rather than waiting for more substantial rewards.

Before their operations the rats had behaved very differently, choosing to hold out for the larger rewards.

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Rudolf Cardinal said: "This finding suggests a mechanism by which Acb (nucleus accumbens) dysfunction may contribute to addiction, ADHD and other impulse control disorders."

The research provides further evidence that there is a strong biological and, therefore, genetic basis to impulsive behaviour.

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