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African herb yields its anti-addiction secret

22 January 2005 by **Bob Holmes**
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THE secret of an African herb that helps drug addicts and alcoholics kick the habit has been discovered. The finding could lead to safer and more effective medications for treating addiction.

Since the 1960s, many addicts have reported that even a single dose of ibogaine, a hallucinogenic alkaloid extracted from the root of an African shrub, helps them kick their habit by reducing their cravings for drugs. And there is hard evidence to back these claims, as well. However, troubling side effects - including heart problems and several deaths - have kept ibogaine from being widely accepted as a medical treatment. Instead, a few researchers have begun searching for ways to deliver ibogaine's benefits without its risks (*New Scientist*, 26 April 2003, p 34).

A few previous studies have suggested that becoming addicted to a substance lowers the production of a nerve growth factor called glial cell-line derived neurotrophic factor, or GDNF. So Dorit Ron's team at the University of California, San Francisco, decided to test whether ibogaine affects GDNF levels in the brain.

In rats injected with ibogaine, the researchers found that production of GDNF increased in a region of the brain called the ventral tegmental area. What's more, injecting either ibogaine or GDNF itself directly into this brain area decreased alcohol cravings in addicted rats, whereas injecting anti-GDNF antibodies eliminated any beneficial effect of ibogaine. The results appear in *The Journal of Neuroscience*.

"The paper looks very solid," says Stanley Glick, a neuropharmacologist at Albany Medical Center in New York, who has studied ibogaine for many years. "They may indeed be on to a major finding." However, both Glick and Ron point out that boosting GDNF may be only one of several mechanisms by which ibogaine acts to ease addiction.

A synthetic ibogaine compound, 18-methoxycoronaridine, which Glick has shown can help addicts with fewer harmful side effects than ibogaine, may also work by controlling GDNF levels. In preliminary studies with cultured nerve cells, Ron's team found that 18-MC also raises GDNF levels.

But the team is not pursuing the ibogaine approach. Instead, Ron thinks it is time to narrow her focus. "Our idea now is to move away from ibogaine and concentrate on GDNF," she says. Her team plans to look for ways to stimulate GDNF without side effects.



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Ignoring The Mystical Element

Thu Jul 16 17:46:18 BST 2009 by Martin Stewart

I think that the whole experience of ibogaine especially the recollection of previous experieces similar to near death experiences with revulsion to bad habits,is crucial to the breaking of addiction people have to realize that its not just chemicals in the brain.

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