

Brain's 'cannabis cousin' calms us

Mind Matters

BY LAWSON WULSIN | ENQUIRER CONTRIBUTOR

Now that we've grown accustomed to the fact that our brains make our own narcotics, commonly called endorphins, we can't be too shocked to learn that our brains also make our own marijuana.

Endocannabinoids, like endorphins, are nature's way of regulating our brains. These chemical "cousins" of cannabis work on the systems that regulate arousal and relaxation. Think of the "off" switch or the brake that counters the accelerator. After the excitement of a threat has passed and our adrenaline has done its work, endocannabinoids take over and help us regain mellow bliss.

Endocannabinoids are proteins that function like neurotransmitters in reverse, inhibiting the release of the neurotransmitters that activate us. They are relatives of marijuana's "THC," and they protect us from the overarousal of stress.

Their effects include relaxing the muscles, lowering blood pressure and heart rate, dampening mental activity and triggering cravings for food. In a less subtle way, inhaled marijuana tickles the same receptors as our own endocannabinoids.

In the brain circuits that activate our fears, too little of these endocannabinoids may leave us with fears that persist beyond the threat.

People with too much endocannabinoid activity may have trouble with fatigue, apathy or overeating.

The recent studies of this endocannabinoid system have given us a new ingredient in the brain soup.

By revealing more about the relaxation half of the process that regulates stress responses, these studies promise to contribute to new treatments for common disorders such as obesity and anxiety.

E-mail lawson.wulsin@uc.edu

Copyright 2007, *Enquirer.com*