



HEALTH

Users Say the 'Smart Drug' Modafinil Is the New Adderall — Only Better



By Sydney Lupkin

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In the not-so-dark corners of the internet, there are groups of people talking about a drug they've nicknamed "moda," but they're not taking it to have a good time. They're taking it to work better, be more focused, and stay awake.

"Really helps my typing speeeeed omg I am so fast so fast so fast so fast so fast so fast so fast so fast so fast so fast,"

one user wrote on a Facebook page dedicated to the drug.

"My brain is ninja level," another wrote.

Moda is short for modafinil, which has been approved by the Food and Drug Administration to treat narcolepsy, and is sold in the US under the brand name Provigil. Some people are taking it off-label and without a prescription — having obtained the drug illegally — in the hopes of improving their cognitive abilities.

A review of 24 studies dating back to 1990 thrust the drug into the spotlight this month because it concluded that the drug does indeed improve cognition, but the researchers say their findings were more nuanced than headlines suggested.

Modafinil drawn comparisons to Adderall and Ritalin, which are FDA-approved amphetamines that are used to treat attention deficit hyperactivity disorder (ADHD) and some sleep disorders. All three drugs are popular among healthy people without these disorders who take them to study or work on big projects.

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Despite extensive research, it remains unclear exactly how modafinil works in the brain. It's considered a stimulant like Adderall and Ritalin, but instead of increasing dopamine and norepinephrine — chemicals in the brain that stimulate the nervous system — modafinil is thought to decrease a chemical called gamma-aminobutyric acid that slows the brain down. Amy Potts, a pharmacist at the Monroe Carell Jr. Children's Hospital at Vanderbilt, told VICE News this "double negative" effect makes modafinil work as a stimulant despite having a different mechanism of action than classic stimulants.

Unlike Adderall and Ritalin, modafinil doesn't come with a sense of euphoria. It's not thought to have the same potential for addiction and abuse, according to the Drug Enforcement Administration, which is why it's classified as a Schedule IV substance, while Adderall and Ritalin are listed in the more tightly restricted Schedule II category. Still, VICE News spoke to several "moda" users who purchase the drug illegally for non-medical use.

| *'The level of focus on your exams go through the roof.'*

A 33-year-old community college student named Quinn, who chose to be identified by only his first name, told VICE News that he first tried modafinil pills last academic year after a friend sent them to him and told him they would make him feel like Bradley Cooper in the 2011 movie *Limitless*. In the movie, Cooper plays a man with writer's block who takes a fictional smart pill that allows him to finish his book, become fluent in several

languages, and get rich playing the stock market.

"I tried just half of one and it worked," Quinn said. "I had more energy. I saw sharper. My cognitive abilities were better. Things made more sense."

He said he doesn't use modafinil every day, and he's never felt the need to abuse it, but he saw his GPA jump from 2.6 to 3.4 to 3.8. Unlike Ritalin and Adderall, which he said made his heart pound, he said he hasn't noticed any heart symptoms. His only complaint is that it sometimes makes it hard for him to go to sleep, an expected side effect of a narcolepsy drug.

About 137,000 American college students start abusing prescription stimulants each year, according to a [report](#) by the federal Substance Abuse and Mental Health Services Administration released last week. The report, which is based on an annual survey of 67,500 people, doesn't name specific stimulants, but peak usage occurred in November, December, and April — key times in the academic calendar. A smaller, less scientific survey published in [The Tab](#), a British publication, estimated that one in five UK university students had used modafinil.

"The level of focus on your exams go through the roof," someone wrote in a modafinil Reddit thread. "[It's] amazing. However, there is a catch. If you don't know the material, you'll likely spend [too] much time trying to figure out one question."

According to a modafinil Facebook group administrator who asked that we only use his first name, Mike, about 80 or 90 percent of the people he's encountered who've used modafinil are men. He said the age range for users spans from early 20s to mid-50s.

"Maybe that's because men are looking for more of an edge," he suggested in a phone interview. "They're more risk-taking in general. That would be my guess."

Mike said he'd encountered some women using modafinil, and said they tended to be "pretty high achievers" who were "entrepreneurs or corporate-types." That jibes with other anecdotal accounts, with *Men's Journal* [reporting](#) as far back as 2008 that the drug is "popular with air force pilots, ER docs, and Silicon Valley entrepreneurs as a stay-awake drug."

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Adderall XR 20mg capsules. Photo [via](#) Patrick Mallahan III/Wikimedia Commons

Oxford University researchers Ruairidh Battleday and Anna-Katharine Brem reviewed 24 studies from 1990 through December 2014 to see whether modafinil indeed improved cognition in healthy individuals. They found that it did, negating a previous review that said people were no better at completing simple tasks with modafinil than without it. Battleday and Brem told VICE News the tasks in the initial study were too simple — but when users were asked to respond to visual and auditory cues modafinil proved to be effective.

Still, the researchers said they didn't intend for their review to be a glowing recommendation for the little white pill. "This review should not promote the use of drugs to enhance performance," Brem said.

The review study was instead intended to draw attention to the topic of "neuroenhancers" —brain-boosting drugs like Adderall, Ritalin, and modafinil — the ethical issues surrounding them, and the methods used to study them.

"I would say you shouldn't take drugs to improve or increase cognitive levels," Brem said, adding that they might even have a negative effect on memory consolidation because they make the user sleep less. "If you sleep enough, if you live a healthy lifestyle, eat healthy, get enough movement, do some sports, that probably would have more effect on your performance than taking a pill."

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Battleday and Brem also concluded from their review that they didn't encounter frequent side effects, but warned that the people in the studies usually only took one dose of modafinil. It's not clear what would happen after taking it regularly for a week, a year, or more, they said.

Side effects can typically include a burning sensation on the skin, difficulty sleeping, and gastrointestinal issues. Less common and more serious side effects include chest pain, racing heart, depression, and thinking about self-harm, according to the [US National Library of Medicine](#). Brem said a rare allergic reaction called Stevens-Johnson syndrome had also been reported.

Brem said she hopes modafinil will one day be tested in healthy people in a more "lifelike" setting. She hopes to learn whether the body eventually adjusts to the modafinil, prompting the user to need more and more.

'Finding it is not hard. Finding a good quality source is harder.'

"These real life experiments are very difficult to design and we don't have these possibilities at the moment," Bram said.

Meanwhile, on Facebook groups and in Reddit threads, people are talking about modafinil, advising each other on where to get it, how much to take, and what to expect.

Mike, the Facebook group admin, said he recently authored a book — not unlike Cooper's *Limitless* character — and that he uses modafinil once or twice a week.

He said the Facebook modafinil community is a great place to ask questions and get answers from people with experience. He said he advises fellow members not to take a modafinil after 9 am — otherwise they'll have trouble sleeping later. And he warned that it's important to remember to drink water and take breaks every 30 or 45 minutes, which can be hard to do because modafinil makes users deeply engrossed in tasks.

People often ask where to buy it, he said, explaining that the cheapest pills are in Asia and India, and they cost between \$1 and \$5 a pill. In the US, modafinil pills cost up to \$20 each without insurance, Mike said. But there are scams out there.

"Finding it is not hard," he said. "Finding a good quality source is harder."

The FBI says to be wary of any internet pharmacy that doesn't require a doctor's prescription and medical history. They say these drugs may be adulterated, contaminated, counterfeit, expired or mislabeled.

"Do your homework and steer clear of illegal internet pharmacies, even if the prices are tempting," the FBI says on its website. "It's your health, after all."

Mike, who buys modafinil online, described taking the drug as being "in the zone" naturally, but "better" and without the jitters, anxiety, or crash that can come with other pills and caffeine. He said he is able to focus for about five solid hours without being tempted to check social media or engage in other distractions.

"I can say emphatically that they work really well off-label for focus," he said.

Asked whether it's possible he's experiencing a placebo effect, Mike replied, "To be honest, it very well could be," before adding that statement could also be true of many other drugs.

"All I know is that it works," he said. "That's all that matters to me."

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