

Fighting Alcoholism With Medications

Drugs combined with support can help alcoholics kick alcohol addiction.

By Neil Osterweil

FROM THE WEBMD ARCHIVES 

There is no magic pill or one-size-fits-all treatment that can banish an alcoholic's need or desire to drink.

But a handful of FDA-approved medications, when used in combination with psychological and social interventions such as 12-step programs, can help a significant number of alcohol-dependent patients reduce their insatiable cravings and cut back substantially on the number of heavy drinking days, say experts in alcohol abuse and dependence.

"For me, the biggest issue is not whether these medicines work, it's why they're not being used more often," says addiction specialist Joseph Volpicelli, MD, PhD, associate professor of psychiatry at the University of Pennsylvania School of Medicine.

Despite the current understanding that alcoholism is a tenacious disease, there are lingering prejudices that cause some people to view alcohol abuse and dependence as moral failings that can be overcome simply by willpower, Volpicelli tells WebMD.

But as he and other specialists in addiction note, medications are not substitutes for drinking, but can instead help make the difference between an alcoholic's successful recovery or relapse.

"I think medications are very important and effective and work best when they're used with psychosocial modalities," agrees Merrill Herman, MD, director of psychiatric services for Montefiore Medical Center's substance abuse treatment program and president of the New York Society of Addiction Medicine in New York City.

Roger D. Weiss, MD, a professor of psychiatry at Harvard Medical School in Boston and clinical director of the alcohol and drug abuse treatment program at McLean Hospital in Belmont, Mass., notes that "medications can sometimes reduce the desire to drink. They can attenuate [weaken] the response that people get to alcohol, to make it less reinforcing, and they can, depending on which medication you're talking about, help reduce protracted, longer-term withdrawal distress."

There are three drugs approved by the FDA for the treatment of alcoholism; a fourth drug has shown promise in recent clinical trials. The following is a summary of the drugs and how they work.

Antabuse

Antabuse was approved for the treatment of alcoholism more than 50 years ago, making it the oldest such drug on the market. It works by interfering with the body's ability to absorb alcohol -- specifically by inhibiting production of an enzyme that would otherwise allow the body to absorb an alcohol breakdown product called acetaldehyde.

With no enzyme to break it down, acetaldehyde builds up in the body after even a small amount of alcohol is ingested, resulting in extremely unpleasant side effects that can include flushing, nausea, and palpitations.

"The big limitation for a medicine like Antabuse is that what people do instead of deciding that alcohol's a bad thing to take, they think that Antabuse is a bad thing to take and they stop taking it," Volpicelli tells WebMD. "Antabuse doesn't take away your craving, and if you drink you still get the effects of alcohol you would normally in terms of the pleasure, until you reach the point where you start feeling sick."

Antabuse is most effective when its use is monitored, say in an alcoholism clinic or at home by a spouse or family member, experts say.

Volpicelli has at least one patient who uses Antabuse as a kind of "chaperone" when she's in social situations. When she starts to feel that her face is flushing, she knows that she has to stop drinking or will get very sick, he says. But for the vast majority of patients the best way to prevent relapse is to stop drinking altogether, specialists in alcoholism treatment caution.

Naltrexone

Naltrexone helps to both reduce the pleasure that alcoholics receive from drinking and the cravings that compel them to seek out more alcohol. It does so by blocking receptors (docking sites) in the brain for endorphins, proteins produced by the body that help to elevate mood. The same receptors also accept narcotics such as morphine and heroin. The drug can be taken as a once-daily pill or in a recently approved once-monthly injectable form.

"Naltrexone sort of gets at the core of what addiction is," Volpicelli says. "The way I like to describe it is that addiction is a condition in which when you do something, you want to do more and more of it. So when people have one or two drinks, instead of stopping after a few drinks they want to have three, four, five, 10 drinks. What we found is that naltrexone breaks that positive feedback loop, so that people can have one or two drinks and they don't feel like having any more."

In clinical trials, oral naltrexone was shown to reduce the amount of relapses to heavy drinking (defined as four or more drinks per day for women, five or more for men). Compared with patients who took a placebo (dummy pill), alcoholics who took naltrexone had 36% fewer heavy drinking episodes over a three-month period.

In the COMBINE (Combining Medications and Behavioral Interventions for Alcoholism) study, sponsored by the National Institute on Alcohol Abuse and Alcoholism (NIAAA), naltrexone was found to be as effective as up to 20 sessions of alcohol counseling by a behavioral specialist, when either was administered under a doctor's close supervision.

Naltrexone is now available in a once-monthly injectable form called Vivitrol. The advantage of this formulation is that patients are more likely to stick with a drug they only need to take once a month, and it appears to work very well, says Herman.

Campral

Campral, taken by mouth three times daily, acts on chemical messenger systems in the brain . It appears to reduce the symptoms that alcoholics may experience when they abstain from booze over long periods. These symptoms can include insomnia, anxiety, restlessness, and unpleasant changes in mood that could lead to relapse. In European clinical trials and in pooled data from several studies, Campral increased the proportion of alcoholics who were able to refrain from drinking for several weeks or months.

However, in the COMBINE trial and another U.S. study, there was no apparent benefit to the use of Campral, either alone or in combination with naltrexone. Patients in the European trials tended to be more severely alcohol dependent than those in the U.S. studies, and most patients in European studies had been abstinent for longer periods before starting Campral, two factors that could account for the difference in the findings, according to the NIAAA.

"We use medicines to help detoxify people, but even after detoxification occurs the neurochemistry is still not in very good balance, and probably even more importantly, when your brain thinks it's going to get alcohol, that elicits these compensatory neural changes so that the body goes through the equivalent of a little mild withdrawal, and [Campral] blocks that," Volpicelli explains.

Topamax

Topamax is approved by the FDA for the treatment of seizures but not for alcoholism. It has a mechanism of action similar to that of Campral and may similarly help patients avoid or reduce the symptoms associated with long-term abstinence.

In a study published in *The Journal of the American Medical Association* in October 2007, researchers from the U.S. and Germany reported that Topamax was better than placebo at reducing the percentage of heavy drinking days over a 14-week period.

Treating Alcoholism: Drugs Alone Aren't Enough

"All these medications work best in the context of psychosocial treatment. Just giving somebody pills without that is not as effective," says Herman.

According to Weiss, at least three forms of psychosocial therapy have been shown to be effective at treating alcoholism, with roughly similar success rates. These include:

- Cognitive behavioral therapy, a form of psychotherapy focusing on identifying and modifying negative thoughts and thought patterns.
- 12-step facilitation, in which patients are encouraged to enter 12-step programs such as Alcoholics Anonymous.
- Motivational enhancement therapy, a patient-centered approach in which counselors try to get patients to think about and express their motivations for change and to

develop a personal plan that can help them make the necessary changes.