

New Medications to Fight the Misery of Craving  
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Doctors tend to focus on those illnesses they can treat, and for the last century that has kept addiction out of the game. Whereas most areas of medicine have dozens of effective medications at their disposal to treat their patients, addiction medicine has always been handicapped by its limited formulary. Especially distressing has been the lack of an effective drug to combat craving - a drug that could provide relief to addicted patients in early abstinence, and help them remain in treatment.

Fortunately, recent research into the neurophysiology of addiction reveals exciting possibilities for the treatment of addiction. New anti-craving drugs are now on the market, and more in the investigational pipeline, that these drugs could change the face of addiction treatment.

*Opioid Blockers:* Drugs that block the effects of heroin and other narcotics (known as "opioid antagonists") have been around for decades. But their usefulness in treating addictions to other drugs has only recently been discovered. Researchers at the University of Pennsylvania found that newly-abstinent alcoholics given naltrexone (ReVia, made by DuPont, and Vivitrol made by Alkermes) reported less craving for alcohol. In addition, those alcoholic patients who relapsed while taking naltrexone drank fewer days before returning to abstinence than those patients given a placebo. Why a drug that blocks opioid receptors should be effective in treating alcohol cravings remains a mystery - especially since naltrexone, while it very effectively prevents narcotic addicts from experiencing euphoria after taking opioids, does nothing to relieve craving *for opioids*.

But what is particularly fascinating about naltrexone is that when the drug was administered to gambling addicts these patients reported less craving for gambling. And those subjects who relapsed to gambling while taking naltrexone gambled less money before returning to abstinence. The possible connection between the GABA system (the neurotransmitter system affected by alcohol) and gambling behaviors is under intense investigation.

*Acamprosate:* Another new anti-craving medication on the market is acamprosate (Campral, made by Forest pharmaceuticals). Acamprosate has been used in Europe for many years, and is proven to reduce cravings for alcohol.

No one is quite sure how acamprosate works, but some have postulated that this drug can "bridge the gap" in the brain between the depleted GABA (inhibitory) system and the glutamate (excitatory) system that occurs in patients newly abstinent from alcohol. The evidence is increasingly clear that leaving the patient in this state of unopposed excitation is actually toxic to the brain. Acamprosate protects the brain until the GABA and glutamate systems can come back into balance, and this may dramatically increase treatment retention in the critical few months of recovery.

*CRF-antagonists:* Probably the most exciting area of research in addiction medicine involves drugs that block the stress reactions that trigger cravings and can lead to relapse. This research involves a particular hormone critical to the brain's stress response known as Corticotropin Releasing Factor, or CRF. It should come as no surprise that mice, first addicted to cocaine, then abstinent for several months, but then submitted

to stressful experiences - either random foot shocks or forced-swimming in water - and given cocaine relapse faster than non-stressed mice. But what is fascinating is that mice who are first addicted, then abstinent, and then stressed but given a drug that blocks CRF along with cocaine *don't relapse*. This compelling research implicates CRF as the key hormone involved in craving and relapse. Drugs that block CRF receptors could prove to be the Holy Grail of addiction medicine - a drug that stops relapse.

You might well ask, "Then where can I get that drug, Doc!?" The only difficulty is that these CRF-antagonists also shut down the immune system, and the poor mouse dies of infection. But as you read this I can assure you that the race is on to find the CRF-antagonist that selectively blocks craving but preserves immune function.

So soon addiction medicine, like other specialties of medicine, will have a handful of medications all its own - a little "bag of tricks" so to speak to help patients get through their first year of sobriety. Think how much easier the practice of addiction medicine will be with these medications! I personally believe that when the word gets out that these drugs work and doctors realize something that we in the treatment field have always known - that addicts are wonderful patients and it's fun to watch them get sober - there will be a run on addiction medicine. Every doctor will want to become certified as an addiction specialist, and a renaissance in the treatment of addiction will begin!

One thing should always be kept in mind: these medications can relieve the symptoms of craving and prevent relapse, but they have no power to fix the underlying spiritual malady that powers the disease of addiction in the first place. Only the program of Alcoholics Anonymous can do that. In the end there is no easier, softer way. But these medications could aid tremendously in helping the newly-sober addict keep coming back until the Twelve-steps can work their magic.

So there may at least be a *stop on the way!*