

False Promises: Don't Be Fooled by the Allure of Anticipation

by Rita Milios

We don't need a neuroscientist to tell us that our brains are wired to get pleasure from the mere *anticipation* of a reward. Anyone who has ever looked forward to a well-deserved vacation knows this. But for drug users trying to resist cravings, the allure of anticipation increases to a whole new level.

Our Hijacked Brains

Studies in neuroscience using brain imaging equipment show that dopamine, previously thought of as the “pleasure chemical,” is actually the “anticipation of pleasure” chemical. *How Addiction Hijacks Our Reward System* is explained by Wilkie Wilson and Cynthia Kuhn in their article by the same name in the journal *Cerebrum* (Vol. 7, #2, Spring 2005). The authors state that, “Dopamine activity increases not as a result of getting the reward, but in anticipation of a reward.” In addition, “The reward system also has the ability to encode cues to help you repeat the experience.” Environmental cues (such as viewing a picture of a line of white powder or passing by a favorite bar) are “mapped” along with the anticipation response, establishing these memories as cues for use as well.

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Another brain center, the executive area, responsible for rationalization and motivation, is also activated during the anticipation/reward experience, and is strengthened each time an anticipation cue is responded to. In effect, our brains are set up to encourage, rather than resist, attempts to avoid responding to an anticipatory cue. However, if you give in to the “anticipation of reward” response and consume a drug, you will be buying into a false promise. You've actually already received its reward—a dopamine rush—and following through on the cue will not add as much to the high as you expect.

That is why addicts chase, but never regain the intensity of their “first high.”

Take Back Your Brain

So what can be done? Is there any way to stop your brain from hijacking your reward system and foiling your recovery efforts? Fortunately, yes, there is.

One well-known option is the use of a replacement drug, such as methadone, that provides a slow, steady stimulation to the brain's reward center that is reduced over time, allowing this center to eventually reset.

An option that does not require drug substitution is the use of mindfulness and cognitive behavioral techniques to retrain the brain. Using such techniques, you can gain more control over your brain's automatic, pre-programmed responses. A side benefit of using mindfulness and other brain-training strategies is that your decision-making skills, problem-solving skills, and coping skills—all factors that help you resist temptation and avoid giving in to short-term gratification cues—improve as well.

Here are some “best practices” strategies from the National Institute of Health's Substance Abuse and Mental Health Services Administration *Treatment Improvement Protocol Series* and other resources:

- **Use Cognitive Restructuring:** Reframe, or change your perspective on, your irrational beliefs, replacing them with more rational alternatives. For example, you might believe that you need to use drugs to relax. The truth is that you may choose to use drugs to relax, but you could find other ways. You may think that quitting is too hard to tolerate. In reality, it is hard, but people do tolerate it, and so can you.
- **Increase Your Coping Skills:** Coping skills consist of both behavioral strategies and thinking strategies. Studies show that, initially, people in recovery tend to rely more on behavioral coping strategies, like avoiding situations and circumstances that might lead to temptation. Later on in recovery, they rely more on mental/thinking strategies, such as cognitive restructuring, planning for risk, and visualizing potential outcomes. In addition to helping people make better choices, the use of thinking-based coping strategies has the effect of increasing the user's sense of self-reliance and self-control, and increases motivation to reach a goal.
- **Visualize Negative Consequences:** Expectations, as noted above, can be false promises. Initially, drug or alcohol use is often viewed as something that will have a positive effect on mood, and that will improve social and interpersonal interactions by providing relaxation and reducing tensions. Later on, as negative consequences are experienced—anxiety, depression, possible paranoia, or lack of motivation—the original motivations for drug use diminish. Unfortunately, by then addiction may have taken hold, and conscious choice is inhibited by subconscious craving mechanisms. However, research shows that by visualizing the negative consequences of drug use and by using other memory-changing strategies, you can “write over” the expectation-of-reward mental script in your brain's reward center.

Don't be fooled by false promises. Instead, reward yourself with success in recovery and in life.