Recovering gambler Leo D. has a suggestion for everyone who suspects he might have a gambling problem. “If you eat one meal a day and it’s a buffet, you might be a compulsive gambler.”

Leo should know. He lost thousands of dollars and as many nights of sleep before he finally recognized his gambling problem. “I always lost back everything I’d won, and then some – but, hey, what do you expect,” he says with bemused irony. “I’m a problem gambler.”

Whether he was taking the Knicks and the points or calculating a roulette payoff, Leo’s gambling – and all gambling – was, is and will always be based on the same simple premise: someone stakes something of value on a contest of uncertain outcome. Then the race is run, the wheel is spun or the deal is done. And whether you lay the bet or cover it, someone wins and someone loses.

In a 1780 House of Commons speech, British statesman Edmond Burke referred to gambling as “a principle inherent in nature.” Burke’s remark seems on the money since games of chance are a pass-time in every culture throughout the world. Gambling predates recorded history and can be traced to the earliest of human societies. Dice-like objects discovered in 40,000 year-old archeological sites suggest that even pre-historic man liked a little action now and then.

In the last thirty years, legal gambling has proliferated throughout the world and now even into cyberspace. Today, legal gambling is a one trillion dollar global enterprise. But no one really knows how much money is actually wagered, since so much of the world’s gambling activity is extra-legal – unregulated and unrecorded.

Regardless of whether a gambler bets in a government-licensed casino or with a street corner “bookie,” a vast majority of gamblers know the activity as just a harmless, though occasionally expensive, diversion. Gambling is inherently neither immoral nor pathological. Most gamblers wager only what they can afford to lose and will never experience a problem related to their gambling.

In about three percent of gamblers, however, the activity triggers a resonating, bells and whistles reward response in their limbic brains. For these few, being in action wakes an impulse to keep gambling so strong that it can endure catastrophic consequences and defy even a firm resolve to quit. For these unfortunate ones, these disordered gamblers, their gaming ultimately progresses to the point where it fills their lives with severe financial and social problems.

Does this mean you?

Identifying the root cause of disordered gambling is complicated. There are a number of variables in the diagnostic process as well as several fundamental misconceptions about the behavior. For years, the terms commonly used by the mental health com-
munity to refer to disordered gambling were compulsive gambling or gambling addiction. Though some problem gamblers may show signs of compulsivity, disordered gambling is neither a compulsion nor an addiction, but rather an impulse control disorder. People who suffer from behavioral compulsions usually loathe their compulsive actions, while those who struggle with impulse control disorders almost always get a short-term reward from their impulsive behavior— even if, ultimately, that behavior turns out to be ruinous. And, even when a person’s gambling is clearly disordered, his or her out of control gaming behavior may be explained as sign of another, related psychiatric problem. Impulsive gambling can be an expression of a manic or hypomanic state typical of bipolar disorder, dis-inhibited behavior caused by the use of intoxicants, or even the unhappy side effects dopamine agonists—a class of drugs used to treat movement disorders.

While most behavioral health practitioners do not consider disordered gambling to be a true addiction, there are marked similarities between problem gambling and chemical addictions. These disorders share the common dynamics of progression, tolerance, and a rather high incidence of co-occurring mood problems. Even though disordered gamblers are drawn to a process rather than to a substance, gamblers too can develop a neurobiologically based tolerance to that process. And just as drug or alcohol addicts often need more and more of their accustomed substance to achieve a “high,” problem gamblers can reach a point where their brain needs them to bet with ever-increasing sums of money to feel fully in action.

This behavioral tolerance combined with problem gamblers’ well-known tendency to chase their losses drives many disordered gamblers to go to desperate lengths to get the funds necessary to stay in action. Gamblers attempting recovery often show up to their first Gamblers Anonymous meeting with a history of criminal offenses like theft, embezzlement and check fraud. The sad fact is that, statistically, more disordered gamblers end up in prison than do those who suffer from chemical addictions.

Gambling and the brain

In the last decade, many behavioral health clinicians have come to believe that, just like drug and alcohol addiction, disordered gambling is a biological illness. Many who treat the disorder are used to seeing two subtypes of gambling, each providing the gambler with its own kind of neurobiological reward. One subtype of gambling, called action gambling, seems to provide the gambler with an augmented arousal state, while the other, known as escape gambling, appears to offer the gambler a markedly reduced state of awareness/arousal.

Players who prefer to augment their mood, called action gamblers, seek the stimulation gambling can provide, and are often flat, restless and easily bored when not in action. Action gamblers prefer gambling activities that involve suspense, information processing and decision-making, and where they can experience perceived skill— typically, activities like poker, blackjack, sports betting and horse handicapping. Action gamblers who also abuse substances tend to prefer stimulant drugs like cocaine and meth, and the initial stimulating effect of alcohol.

Those gamblers who seek to reduce their arousal states and can produce states similar to sedation or dissociation. Escape gamblers are more likely to prefer passive activities— games of pure chance that demand little skill or decision making on the part of the gambler. Slot machines, bingo and scratch-offs tend to be their games of choice. Escape gamblers who also abuse substances often prefer sedatives like opiates and benzodiazepines.

Your brain on action gambling

Action gambling is thought to produce, in the brains of disordered gamblers, mood-augmenting effects chemically similar to stimulant drugs like cocaine and methamphetamine. This kind of gambling is known to activate the brain’s signaling molecules, dopamine and norepinephrine. These are the neurotransmitters of reward and arousal and, interestingly, the same neurotransmitters energized by cocaine and meth.

Because dopamine and norepinephrine are energized, when the gambler is in action he or she can experience intense focus and feelings of pleasure and excitement. And some researchers believe that action gamblers might even be biologically predisposed to seek augmented norepinephrine activity. Research conducted by the Illinois Institute for Addiction Recovery indicates that disordered gamblers have lower norepinephrine levels than normal gamblers or non-gambling controls. Action gamblers often suffer from pre-existing, biologically based mood difficulties like depression and attention disorders— problems that are associated with dysregulation of dopamine and norepinephrine.

Your brain on escape gambling

Contrasted with action gamblers, players who are drawn to escape gambling activities appear to experience a kind of dissociative, or trance, state when in play. Some researchers have hypothesized that escape gambling may mobilize endorphins within the gambler’s brain. Endorphins are naturally occurring opioid-like neurotransmitters, activated in response to stress, and which block the transmission of pain and anxiety signals within the brain. Interestingly, escape gamblers report a higher incidence of chronic pain issues than either action gamblers or non-gambling controls. Escape gamblers often report grief and anxiety issues as well. Some researchers think that at least some escape gamblers may suffer from pre-existing insufficiency or dysregulation of endogenous opioid neurotransmitters.

Receptor roulette

In a small minority of the population there appears to be a connection between the therapeutic use of a class of drugs called dopamine agonists and a sudden and unexpected onset of disordered gambling. A small but significant number of patients who have no history of problem gambling, and who are prescribed dopamine agonists (medications like Mirapex®, Requip® and levodopa) for movement disorders like Parkinson’s disease and restless legs syndrome, will suddenly begin to gamble impulsively.

Dr. Valerie Voon, a researcher at the National Institute of Neurological Disorders and Stroke (NINDS), has investigated the idea that dopamine agonists might figure in the sudden onset of problematic gambling. In a study of 297 Parkinson’s patients receiving dopamine agonists she found that 7.2 percent reported the development of disordered gambling or some similar impulse-control problem related to their use of dopamine agonists. For the affected patients, problematic gambling began only after each was started on or had a dose increase of a dopamine agonist.

In these same patients, problematic gambling that began coincident with the start of dopamine agonist therapy stopped abruptly after the medication was discontinued. A majority of patients experienced a complete resolution of their gambling problem within a month of stopping dopamine agonist therapy. These data provided Voon with even stronger evidence of a relationship between disordered gambling and dysregulated dopamine. Patients who reported other dopamine agonist-generated impulse control problems, like hypersexuality, shoplifting or impulsive spending, also reported a complete cessation of these behaviors within a month of discontinuing dopamine agonist therapy.

Dr. Voon also found that those study subjects in whom dopamine agonists triggered problem gambling, tended to score higher for novelty seeking and impulsivity in personality testing than did non-affected controls. Affected patients also reported a higher incidence of personal or family history of alcohol abuse.

As more and more research has shown a connection between dysregulated norepinephrine and dopamine and impulse control disorders, clinicians who treat these illnesses...
are counseling their gambling clients to include skillful nutrition as an important part of a successful gambling recovery.

Many behavioral nutritionists believe that foods rich in the amino acids tryptophan and tyrosine can provide the brain with chemical precursors that can optimize the production of new dopamine, and norepinephrine and help to re-regulate the levels and action of these neurotransmitters. The disordered gambler might be wise to give consideration to eating fresh and nutritious food (foods that contain high levels of the amino acids tryptophan and tyrosine) as a way of improving their brain’s biological ability to regulate mood and impulse control. Recovering gamblers might also be encouraged to exercise as well, since moderate aerobic activity appears to help the synthesis of tryptophan and tyrosine into new dopamine and norepinephrine.

Betting the family farm

The families of pathological gamblers, when compared to loved ones affected by chemical dependence, can display even more stubborn denial about their family member’s addiction. Families of gamblers often have difficulty appreciating the severity of their loved one’s problem, possibly due to the fact that there is much more limited general awareness of disordered gambling than there is of alcoholism and drug addiction. Denial can be institutional too. Not all insurance companies offer reimbursement for disordered gambling-specific treatment. Some HMOs don’t even recognize the disorder.

Cultural factors and familial norms can also influence how family members view and react to a loved one’s problematic gambling. In some Asian communities, a high acceptance of gambling as a family-centered activity can undermine recovery efforts.

In other cases, members of the gambler’s family might even have enjoyed benefits related to the gambler’s lifestyle and become attached to the comps and glitz that are routinely offered to the “high-roller.”

Recovery strategies for action gamblers

Action gamblers, whose favored coping strategies typically cluster around power and control, may have particular difficulty accepting the concept of powerlessness over gambling. Education on the dynamics and progression of disordered gambling and attending Gamblers Anonymous meetings (www.gamblersanonymous.org) can be valuable in helping the problem gambler cultivate a “surrender to win” attitude.

The action gambler will also benefit from the development of more adaptive “affect management” skills, which means learning to handle feelings of boredom and restlessness. Otherwise, these mood states can remain as powerful triggers to the impulse to gamble. Mind/body practices like yoga and meditation can also help the disordered gambler cultivate healthy mindfulness and a greater awareness of how and where in their body they experience distressful feelings.

Recovery strategies for escape gamblers

Improving their management of feelings can also be a key part of recovery for escape gamblers. When applicable, grief counseling and therapy aimed at improving distress tolerance can help escape gamblers to develop better self-soothing and mood intervention skills. And escape gamblers who suffer from chronic pain can benefit greatly from pain-management strategies like massage and acupuncture.

Gamblers Anonymous meetings can also be a mainstay in the recovery of escape gamblers. But escape gamblers, often anxious and disempowered, may have difficulty with the idea of taking the social risks involved in accessing and using twelve-step support.

An inside straight

When attempting recovery from disordered gambling the gambler is well advised to start with a thorough – and, if possible, multi-disciplinary – medical, psychological and social assessment – an assessment aimed at identifying the root cause of their gambling problem and calculated to rule out possible differential diagnoses. Assessing clinicians will want to determine the type of gambling and neurobiological payoff that most appeals to the gambler. A good clinician will also assess family members’ economic, safety and emotional needs, and make appropriate referrals for the loved ones of the gambling patient.

Establishing strong, safe and trusting alliances with other recovering gamblers can form the bedrock of sustained gambling abstinence. Trusted others can also help the gambler take a clear and critical look at their gambling behavior, appreciate the level of impulsivity of their gaming and accept the need for an active recovery effort. But, like drawing to an inside straight, recovery from disordered gambling is hard. It is typically a long and difficult process, with many challenges and a few setbacks along the way. Patience and persistence is invaluable. And, as Leo D. might advise, "For heaven’s sake, stay away from the buffet.”

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