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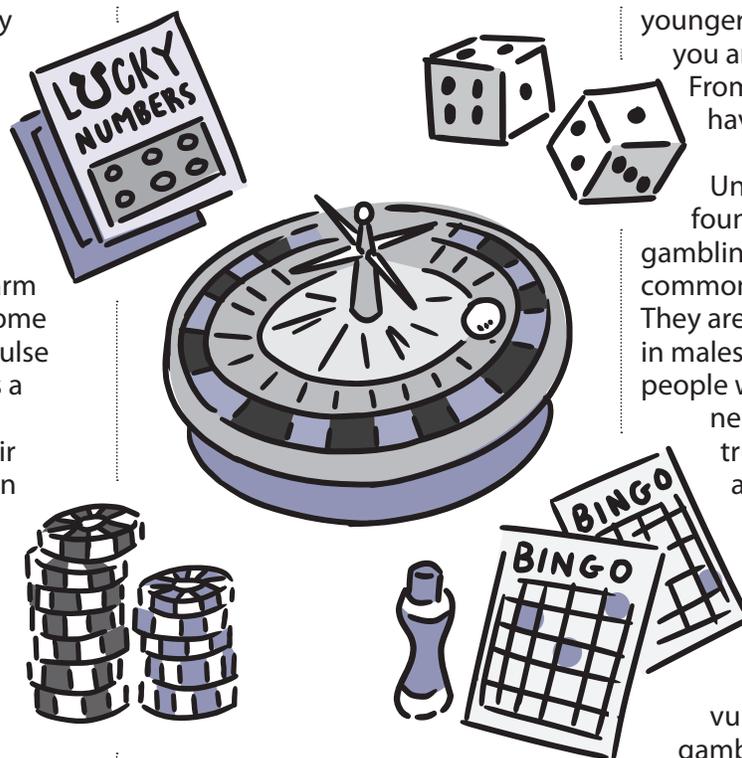
When the Stakes Turn Toxic Learn About Problem Gambling

Anyone who's bought a lottery ticket or played bingo has gambled. Gambling is any game of chance in which money changes hands. It's common in most cultures around the world. Many people enjoy gambling as recreation without causing harm to themselves or others. Yet some people can't control their impulse to gamble, even when it takes a terrible toll on their lives.

For these gamblers and their families, researchers have been making progress in several areas. Scientists are learning why people have problems with gambling: how common it is, what goes on inside the gambler's brain, who is at risk and what kinds of treatment can help.

Problem gambling is defined by some researchers as gambling that causes harm to the gambler or someone else, in spite of a desire to stop. Between 2% and 4% of Americans struggle with this condition. Problem gambling can progress to a recognized psychiatric diagnosis called **pathological** gambling.

Pathological gambling may affect from 0.4% to 2% of Americans. "Pathological gambling comes with a constellation of problems that



younger you start, the more likely you are to get into trouble later on. From 3% to 8% of adolescents have a problem with gambling.

Dr. John Welte of the University of Buffalo has found that, across the lifespan, gambling problems are even more common than alcohol dependence. They are also much more common in males, in young people, and in people who live in relatively poor neighborhoods. "That's not

true of the prevalence of alcoholism," says Welte.

"Alcoholism is much more democratic. So think about motives for gambling.

People are hoping that winning will improve their lot. That makes them more vulnerable to developing a gambling problem."

In a study of mostly African-American inner-city youth, Dr. Silvia Martins of Johns Hopkins University has found that about 15% have some form of problem gambling. Most at-risk were adolescents and young adults who began showing symptoms of depression at age 12. They were highly impulsive, although not hyperactive or aggressive. As the African-American boys developed into their teens and early adulthood,

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contribute to chaos," says Dr. Donald Black of the University of Iowa. "It's associated with worse physical health, excessive smoking, excessive drinking, not exercising, not seeing primary care doctors and worse dental care. It also fuels depression, family dysfunction, crime, bankruptcy and suicide."

Together, pathological and problem gambling may affect up to 5% of Americans. That number may rise, though. Laws in many states are creating more options for legal gambling, and internet gambling is becoming more common.

Still, gambling is often done in family settings, condoned or encouraged by parents. And the



Definitions

Pathological

Related to a disease.

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gambling appeared to be a separate risk factor for early fatherhood and criminal arrest.

"We are following up with these inner-city kids every single year as



Wise Choices Signs of Problem Gambling

Are you troubled by gambling?
Seek help if:

- you always think about gambling.
- you gamble with money you need for other things.
- you keep gambling even though you may feel bad afterward.
- you get nervous when you try to quit.
- you need to gamble with increasing amounts of money to get the same buzz.
- you lose money, but you return to "chase" losses by gambling even more.
- you spend work, school or family time gambling.
- you tell lies to hide your gambling.
- you lose a job, educational opportunity or relationship because of gambling.
- you find that no matter how hard you try, you can't stop.

they enter adulthood," says Martins.

But why is gambling irresistible to some folks and not others? Using advanced imaging techniques, Dr. Alexander Neumeister of Mount Sinai School of Medicine looked at the brains of people with gambling problems and alcohol problems. He measured the number of special **receptors** involved in regulating impulse control and other factors.

"A key feature of addiction is impaired impulse control," says Neumeister. "Abnormal function of the forebrain leads to reduced tolerance to waiting." The resulting impatience may cause people to act without considering the consequences. "Our imaging clearly points toward the importance of impaired forebrain function in addiction."

Pinpointing areas in the brain's reward center, Neumeister's team found that people with alcohol addiction and gambling problems show different functioning of these special receptors compared to healthy people. The differences were related to the severity of addiction. Other researchers are trying to develop drugs that could treat the affected areas.



Definitions

Receptors

Molecules that receive and respond to signals.



Web Links

For more information about gambling, see our links online:

<http://newsinhealth.nih.gov/issue/May2011/Feature1>

Talk therapy can also help. Dr. Nancy Petry at the University of Connecticut Health Center works with pathological gamblers and people seeking treatment for drug use disorders. Gambling problems arise in about 10% to 20% of substance abusers. Petry compared the use of different types of talk therapy, including very brief interventions and cognitive-behavioral therapy (CBT). CBT teaches people how to think differently about problems and then act on that knowledge.

"We found very brief interventions and CBT were effective in reducing gambling and gambling-related problems," Petry says. "There was a significant improvement relative to usual care or standard forms of treatment like Gamblers Anonymous [a 12-step program]."

Anybody can have a gambling problem, and no one should feel ashamed or be afraid to seek treatment. "Pathological gambling is a medical disorder, not a sin or a vice," says Dr. Carlos Blanco of Columbia University and the New York State Psychiatric Institute. "There is no stereotype. The main predictor of outcome is really motivation."

In other words, what counts most is a strong drive or desire to take action. Blanco offers gamblers motivational interviewing, which helps them explore their mixed feelings about trying to quit gambling. This primes them to be ready and willing to begin CBT. Using both therapies together can be very effective.

If you have concerns about your gambling, ask for help. Your health provider can work with you to find the treatment that's best for you. ■

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National Institutes of Health

Office of Communications
& Public Liaison
Building 31, Room 5B64
Bethesda, MD 20892-2094
[nihnewsinhealth@od.nih.gov](mailto:.nihnewsinhealth@od.nih.gov)
Tel: 301-435-7489 Fax: 301-496-0019

Editor Harrison Wein, Ph.D.

Assistant Editor Vicki Contie

Contributors Vicki Contie, Alan Defibaugh (illustrations), Bryan Ewsichek (design), Belle Waring and Harrison Wein

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Recognizing Schizophrenia

Seeking Clues to a Difficult Disorder

What would it be like to hear voices or see people or things that aren't really there? How would you feel if people seemed out to harm you, and you weren't sure who to trust? Would you recognize that something was wrong?

Unfortunately, most people with schizophrenia are unaware that their symptoms are warning signs of a mental disorder. Their lives may be unraveling, yet they may believe that their experiences are normal. Or they may feel that they're blessed or cursed with special insights that others can't see.

Schizophrenia is a brain disorder that affects about 1 in 100 people. It affects men and women equally in all ethnic groups. Symptoms often start between ages 16 and 30 but most often between 18 and 22. It's unusual to develop schizophrenia after age 45.

A few decades ago, researchers thought that schizophrenia was caused by inappropriate parenting. Now scientists recognize that a combination of **genes** and the environment are to blame.

"We know from studies of identical twins that when one twin has schizophrenia, the other twin has a 50% chance of having the disease, indicating that genes may account for half of the mechanisms involved in schizophrenia," says Dr. José A. Apud, clinical director of the schizophrenia research program at NIH.



Definitions

Genes

Stretches of DNA, a substance you inherit from your parents, that define characteristics such as how likely you are to get certain diseases.

Antipsychotics

Drugs that prevent some symptoms of schizophrenia, including hallucinations and delusions.

But since these twins are genetically the same, other factors must also contribute to schizophrenia. Some scientists have identified environmental factors that may play a role. But researchers don't yet fully agree on whether or how these factors trigger the disease.

Several genes have been linked to schizophrenia. But each seems to have only a small effect on the chances of getting the disorder. "If we could understand the genes and mechanisms, we might be able to develop drugs that better target the disease," says Apud.

Although schizophrenia has no cure, 2 main types of treatment can help. "The first line of treatment is always medication, especially **antipsychotics**," says Apud. "Second, we use supportive types of psychotherapy and psychosocial treatments." These can help with everyday living skills and possibly finding an appropriate job.

Patients often try different medications to see which work best. Some types of antipsychotics can cause weight gain, which can lead to diabetes or high cholesterol. Other types can cause a disorder where a person cannot control muscle movements. Despite these drawbacks, antipsychotics greatly improve the lives of most patients.

Problems arise when patients stop taking their medications, which is common. One NIH-funded study found that most patients stop taking antipsychotics within the first 18 months of treatment. "Because of problems with judgment and insight, they may not feel that they need treatment," Apud says. "Side effects



also play a major role in patients' poor compliance with medications."

People with schizophrenia often must rely on family or friends to get them into treatment. Caring for and supporting a family member with schizophrenia can be challenging. It may help to find a support group. Talking to others who care for people with schizophrenia may help your whole family. ■



Wise Choices Signs of Schizophrenia

- Hallucinations (seeing, hearing or feeling things that no one else can)
- Delusions (believing things that aren't true)
- Thinking-related problems that make it hard to have a job or take care of yourself
- Lack of facial expression
- Talking very little or in a dull voice
- Inability to follow through with planned activities
- Trouble focusing or paying attention



Web Links

For more about schizophrenia, see our links online:

<http://newsinhealth.nih.gov/issue/May2011/Feature2>

Health Capsules

For links to more information, see these stories online:
<http://newsinhealth.nih.gov/issue/May2011/Capsule1>

Drug Helps Relieve Asthma in Young People

In a new study, adding a drug called omalizumab to asthma treatment nearly eliminated seasonal surges in asthma attacks among young city dwellers. The finding could help doctors combat this common disease.

About 18 million adults and 7 million children nationwide have asthma. Symptoms include wheezing, coughing, chest tightness and shortness of breath. These often get worse in the spring and fall, when pollen in the air can cause allergic reactions that make symptoms worse. Viruses, such as those that cause the common cold, can also make symptoms worse.

Patients usually improve when asthma treatments are based on NIH

guidelines. But some asthma symptoms still require a trip to the hospital. Inner-city children and adolescents are at especially high risk.

To see how asthma outcomes might be improved, NIH-funded scientists studied 419 young people, ages 6 to 20, from the inner city. All were told to continue taking their standard asthma therapy. About half were given an additional drug called omalizumab. This drug blocks a molecule involved in allergic reactions that lead to trouble breathing.

Patients taking omalizumab had an overall 25% reduction in days with symptoms and a 30% decline in asthma attacks compared with those not

taking the drug. Omalizumab also led to a 75% drop in hospitalizations.

"The spike in asthma attacks in the fall, which is associated with colds and other viral airway infections, disappeared in the kids in the omalizumab group," says lead scientist Dr. William Busse of the University of Wisconsin-Madison. The researchers now plan to test the effectiveness of the drug when given only during peak asthma seasons. ■

Learn About Long-Term Care

What is long-term care and will I need it? Where can I find long-term care services? Are there things I should do now to plan ahead?

Older adults and their loved ones can find easy-to-understand answers to these and other questions at www.nihseniorhealth.gov/longtermcare/toc.html. "Long-Term Care" is the newest topic on NIHSeniorHealth, a health and wellness web site for older adults.

You may need long-term care if you can no longer perform everyday tasks by yourself. This might be because of ongoing illness, injury, disability or the aging process.

Most long-term care is provided at home by unpaid family members and friends. But sometimes care is given by paid caregivers, either at home or

in a facility such as a nursing home or assisted-living facility.

"Today, approximately 10 million Americans need long-term services and supports," says Kathy Greenlee, assistant secretary for aging at the U.S. Administration on Aging, which helped develop the topic. "As America ages, that number is rising steadily. By 2020, it is expected that 15 million Americans will need some type of long-term care."

The best time to think about long-term care is long before you need it. An unexpected accident, illness or injury can change your needs, sometimes suddenly. Learn more about long-term care and other health topics for older adults at <http://NIHSeniorHealth.gov>. ■

Featured Web Site NIH Home Page

www.NIH.gov

Looking for health information? NIH's home page has a fresh new look to help you find what you need. A colorful slideshow features a variety of health topics. Link directly to research news, information on clinical trials, science education resources and many other useful tools.

The screenshot shows the NIH website interface. At the top, there are navigation links for 'Health Information', 'Grants & Funding', 'News & Events', 'Research & Training', 'Institutes at NIH', and 'About NIH'. A search bar is located on the right. The main content area features a large banner for 'The U.S. FOOD ALLERGY Guidelines Are Here!' with a 'More' button. Below this, there are several news snippets under the heading 'IN THE NEWS', including 'New findings on heart disease: study suggests abnormal heart rate turbulence could be a risk factor' and 'Mentor service now available: new service offers substance abuse treatment advice'. On the right side, there is a section for 'THE NIH DIRECTOR' featuring a photo of Dr. Francis S. Collins and a 'Biographical Sketch' link. At the bottom, there are links for 'Health Topics A-Z', 'Clinical Trials', and 'Feedback NIH'.

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