



Schizophrenia: An Overview

Schizophrenia is a serious brain disorder that distorts the way a person thinks, acts, expresses emotions, perceives reality, and relates to others. People with schizophrenia -- the most chronic and disabling of the major mental illnesses -- often have problems functioning in society, at work, at school, and in relationships. Schizophrenia can leave its sufferer frightened and withdrawn. It is a life-long disease that cannot be cured but can be controlled with proper treatment.

Contrary to popular belief, schizophrenia is not a split or multiple personality. Schizophrenia is a psychosis, a type of mental illness in which a person cannot tell what is real from what is imagined. At times, people with psychotic disorders lose touch with reality. The world may seem like a jumble of confusing thoughts, images, and sounds. The behavior of people with schizophrenia may be very strange and even shocking. A sudden change in personality and behavior, which occurs when schizophrenia sufferers lose touch with reality, is called a psychotic episode.

Schizophrenia varies in severity from person to person. Some people have only one psychotic episode while others have many episodes during a lifetime but lead relatively normal lives between episodes. Still other individuals with this disorder may experience a decline in their functioning over time with little improvement between full blown psychotic episodes. Schizophrenia symptoms seem to worsen and improve in cycles known as relapses and remissions.

At one time, doctors classified schizophrenia based on distinct subtypes:

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- **Paranoid:** Where someone feels he is being persecuted or spied on.
- **Disorganized:** Where people appear confused and incoherent.
- **Catatonic:** Where people can be physically immobile or unable to speak.
- **Undifferentiated schizophrenia:** A subtype in which no paranoid, disorganized or catatonic features are prominent
- **Residual Schizophrenia:** In which psychotic symptoms are markedly diminished or no longer present

Scientists think the above distinctions are no longer as accurate or useful as once thought and therefore instead just focus on describing symptoms and their severity

People with schizophrenia may have a number of symptoms involving changes in ability, thinking, perception, behavior, and personality, and they may display different kinds of behavior at different times. When the illness first appears, symptoms usually are sudden and severe.

The most common symptoms of schizophrenia can be grouped into several categories including positive symptoms, cognitive symptoms, and negative symptoms.

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Sources ^

SOURCES:

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MedicineNet.com: "Schizophrenia."

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Positive Symptoms of Schizophrenia

In this case, the word positive does not mean "good." Rather, it refers to obvious symptoms that are exaggerated forms of thinking or behavior that become irrational. These symptoms, which are sometimes referred to as psychotic symptoms, include:

- **Delusions:** Delusions are strange beliefs that are not based in reality and that the person refuses to give up, even when presented with factual information. For example, the person suffering from delusions may believe that people can hear his or her thoughts, that he or she is God or the devil, or that people are putting thoughts into his or her head or plotting against them.
- **Hallucinations:** These involve perceiving sensations that aren't real, such as seeing things that aren't there, hearing voices, smelling strange odors, having a "funny" taste in your mouth, and feeling sensations on your skin even though nothing is touching your body. Hearing voices is the most common hallucination in people with schizophrenia. The voices may comment on the person's behavior, insult the person, or give commands.
- **Catatonia** (a condition in which the person becomes physically fixed in a single position for a very long time).

Disorganized symptoms of schizophrenia are a type of positive symptom that reflects the person's inability to think clearly and respond appropriately. Examples of disorganized symptoms include:

- Talking in sentences that do not make sense or using nonsense words, making it difficult for the person to communicate or engage in conversation
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- Being unable to make decisions
- Writing excessively but without meaning
- Forgetting or losing things
- Repeating movements or gestures, such as pacing or walking in circles
- Having problems making sense of everyday sights, sounds, and feelings

Cognitive Symptoms of Schizophrenia

Cognitive symptoms include:

- Poor executive functioning (the ability to understand information and to use it to make decisions)
- Trouble focusing or paying attention
- Difficulty with working memory (the ability to use information immediately after learning it)

Negative Symptoms of Schizophrenia

In this case, the word negative does not mean "bad," but reflects the absence of certain normal behaviors in people with schizophrenia. Negative symptoms of schizophrenia include:

- Lack of emotion or a very limited range of emotions
- Withdrawal from family, friends, and social activities
- Reduced energy
- Reduced speech
- Lack of motivation
- Loss of pleasure or interest in life
- Poor hygiene and grooming habits

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The exact cause of schizophrenia is not yet known. It is known, however, that schizophrenia -- like cancer and diabetes -- is a real illness with a biological basis. It is not the result of bad parenting or personal weakness. Researchers have uncovered a number of factors that appear to play a role in the development of schizophrenia, including:

- **Genetics (heredity):** Schizophrenia can run in families, which means a greater *likelihood* to develop schizophrenia may be passed on from parents to their children.
- **Brain chemistry and circuits:** People with schizophrenia may have abnormal regulation of certain chemicals (neurotransmitters) in the brain, related to specific pathways or "circuits" of nerve cells that affect thinking and behavior. Different brain circuits form networks for communication throughout the brain. Scientists think that problems with how these circuits operate may result from trouble with certain receptors on nerve cells for key neurotransmitters (like glutamate, GABA, or dopamine), or with other cells in the nervous system (called "glia") that provide support to nerve cells within brain circuits. The illness is not believed to be simply a deficiency or "imbalance" of brain chemicals, as was once thought.
- **Brain abnormality:** Research has found abnormal brain structure and function in people with schizophrenia. However, this type of abnormality doesn't happen in all schizophrenics and can occur in people without the disease.
- **Environmental factors:** Evidence suggests that certain environmental factors, such as a viral infection, extensive exposure to toxins like marijuana, or highly stressful situations, may trigger schizophrenia in people who have inherited a tendency to develop the disorder. Schizophrenia more often surfaces when the body is undergoing hormonal and physical changes, such as those that occur during the teen and young adult years.

Who Gets Schizophrenia?

Anyone can get schizophrenia. It is diagnosed all over the world and in all races and cultures. While it can occur at any age, schizophrenia typically first appears in the teenage years or early 20s. The disorder affects men and women equally, although symptoms generally appear earlier in men (in their teens or 20s) than in women (in their 20s or early 30s). Earlier onset of symptoms has been linked to a more severe course of illness. Children over the age of 5 can develop schizophrenia, but it is very rare before adolescence.

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How Common Is Schizophrenia?

Schizophrenia occurs in about 1% of the population. About 2.2 million Americans, ages 18 and older, will develop schizophrenia.

How Is Schizophrenia Diagnosed?

If symptoms of schizophrenia are present, the doctor will perform a complete medical history and sometimes a physical exam. While there are no laboratory tests to specifically diagnose schizophrenia, the doctor may use various tests, and possibly blood tests or brain imaging studies, to rule out another physical illness or intoxication (substance-induced psychosis) as the cause of the symptoms.

If the doctor finds no other physical reason for the schizophrenia symptoms, he or she may refer the person to a psychiatrist or psychologist, mental health professionals who are specially trained to diagnose and treat mental illnesses. Psychiatrists and psychologists use specially designed interviews and assessment tools to evaluate a person for a psychotic disorder. The therapist bases his or her diagnosis on the person's and family's report of symptoms and his or her observation of the person's attitude and behavior. A person is considered to have schizophrenia if he or she has characteristic symptoms that last for at least six months.

How Is Schizophrenia Treated?

The goal of schizophrenia treatment is to reduce the symptoms and to decrease the chances of a relapse, or return of symptoms. Treatment for schizophrenia may include:

- **Medications:** The primary medications used to treat schizophrenia are called antipsychotics. These drugs do not cure schizophrenia but help relieve the most troubling symptoms, including delusions, hallucinations, and thinking problems. Older (commonly referred to as "first generation") medications used include: chlorpromazine (Thorazine), fluphenazine (Prolixin), haloperidol (Haldol), loxapine (Loxapine), perphenazine (Trilafon), thioridazine (Mellaril), thiothixene (Navane), and trifluoperazine (Stelazine). Newer ("atypical" or second generation) drugs used to treat schizophrenia include: aripiprazole (Abilify), aripiprazole lauroxil (Aristada), asenapine (Saphris), clozapine (Clozaril), iloperidone (Fanapt), lurasidone (Latuda), paliperidone (Invega Sustenna), paliperidone palmitate (Invega Trinza), quetiapine (Seroquel), risperidone (Risperdal), and olanzapine (Zyprexa), and ziprasidone (Geodon). Other, even newer atypical antipsychotics include brexpiprazole (Rexulti) and cariprazine (Vraylar).
 - **Psychosocial therapy:** While medication may help relieve symptoms of schizophrenia, various psychosocial treatments can help with the behavioral, psychological, social, and occupational problems associated with the illness. Through therapy, patients also can learn to manage their symptoms, identify early warning signs of relapse, and develop a relapse prevention plan. Psychosocial therapies include:
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- Cognitive remediation involves learning techniques to compensate for problems with information processing, often through drills, coaching and computer-based exercises, to strengthen specific mental skills involving attention, memory and planning/organization.
- Individual psychotherapy, which can help the person better understand his or her illness, and learn coping and problem-solving skills.
- Family therapy, which can help families deal more effectively with a loved one who has schizophrenia, enabling them to better help their loved one.
- Group therapy/support groups, which can provide continuing mutual support.
- **Hospitalization:** Many people with schizophrenia may be treated as outpatients. However, people with particularly severe symptoms, or those in danger of hurting themselves or others or who cannot take care of themselves at home may require hospitalization to stabilize their condition.
- **Electroconvulsive therapy (ECT):** This is a procedure in which electrodes are attached to the person's scalp and, while asleep under general anesthesia, a small electric shock is delivered to the brain. A course of ECT treatment usually involves 2-3 treatments per week for several weeks. Each shock treatment causes a controlled seizure, and a series of treatments over time leads to improvement in mood and thinking. Scientists do not fully understand exactly how ECT and the controlled seizures it causes have a therapeutic effect, although some researchers think that ECT-induced seizures may affect the release of neurotransmitters in the brain. ECT is less well established for treating schizophrenia than depression or bipolar disorder, and it is therefore not used very often when mood symptoms are absent. ECT is sometimes helpful when medications fail or if severe depression or catatonia makes treating the illness difficult.
- **Psychosurgery:** In the 1940s and 1950s, a neurosurgical procedure called a prefrontal lobotomy was sometimes used to treat severe agitation associated with psychosis. Because it caused serious and irreversible negative effects that dulled personality and motivation, the procedure is no longer performed as a psychiatric treatment. Other, more modern neurosurgical procedures being studied to treat schizophrenia include deep brain stimulation (DBS) -- an entirely different operation that is not at all related to lobotomy -- in which stimulating electrodes are surgically implanted in brain areas believed to control thinking and perception. DBS is an established treatment for severe Parkinson's Disease and essential tremor, and remains experimental for the treatment of psychiatric disorders.

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Are People With Schizophrenia Dangerous?

Popular books and movies often depict people with schizophrenia and other mental illnesses as dangerous and violent. This is usually not true. Most people with schizophrenia are not violent. More typically, they prefer to withdraw and be left alone. In some cases, however, people with mental illness may engage in dangerous or violent behaviors that are generally a result of their psychosis and the resulting fear from feelings of being threatened in some way by their surroundings.

On the other hand, people with schizophrenia can be a danger to themselves. Suicide is the number one cause of premature death among people with schizophrenia.

What Is the Outlook for People With Schizophrenia?

With proper treatment, most people with schizophrenia can lead productive and fulfilling lives. Depending on the level of severity and the consistency of treatment received they are able to live with their families or in community settings rather than in long-term psychiatric institutions.

Ongoing research on the brain and how brain disorders develop will likely lead to more effective medicines with fewer side effects.

Can Schizophrenia Be Prevented?

There is no known way to prevent schizophrenia. However, early diagnosis and treatment can help avoid or reduce frequent relapses and hospitalizations and help decrease the disruption to the person's life, family, and relationships .

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