



# What Is Schizophrenia?

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Although currently classified as a mental illness, schizophrenia is now scientifically accepted as a neurobiological brain illness.

## A Syndrome

Schizophrenia, a neurobiological brain syndrome, includes possibly hundreds of distinct brain diseases. These diseases are sometimes referred to as “schizophrenia spectrum disorders.” Symptoms vary greatly among different people. The most widely accepted theory of schizophrenia is that it is a neurodevelopmental disorder, which means that normal brain development during fetal life is disrupted due to various genetic factors and/or environmental factors.

Schizophrenia usually starts in adolescence or early twenties in males and in the late 20s and early 30s in some females.

## A Brain Disorder

While schizophrenia is clearly a neurological disorder like stroke, Parkinson’s Disease, Alzheimer’s Disease and others – schizophrenia is still classified as a mental illness. It should be emphasized that one of the most important jobs of the brain is to generate the mind, and thus all mental disorders such as schizophrenia, bipolar disorders, major depression or panic disorder are actually caused by abnormalities in brain structure and function. As Thomas Insel, MD – former Director of the National Institute of Mental Health – said, “Mental disorders are biological disorders involving brain circuits.”

There are hundreds of “biotypes” within the schizophrenia syndrome, but they all share a similar phenotype of psychosis, cognitive deficits and negative symptoms.

## Clinical Features of Schizophrenia

Schizophrenia affects about 1% of the world's population, (60 million people, around the world).

Symptoms of schizophrenia may include hallucinations (seeing, hearing or smelling things that are not really there) and delusions (persistent false beliefs, such as that someone plans to harm them or that the affected individual is a person is a prophet, or member of the CIA). These symptoms are referred to as "positive symptoms" though they are not positive to the person experiencing them. ("Positive" refers to manifestations of disrupted human thinking, perceptions and behavior.) These symptoms are attributed to an increased activity of the neurotransmitter dopamine in a certain region of the brain.

Withdrawal, lack of interest in things a person used to love, or loss of interest in self-care, such as not eating or showering, are commonly called "negative" symptoms of schizophrenia. ("Negative" refers to loss or decrement of normal human social or personal functions.) Some of these symptoms are known to be associated with a reduction of the same neurotransmitter dopamine in the frontal region of the brain, affecting the ability to be motivated, display normal facial expressions, or to initiate an action. Cognitive impairment is another important set of symptoms including memory deficits and inability to plan or make decisions. Furthermore, patients suffering from schizophrenia often do not realize they are sick and resist being hospitalized or refuse medications that can help them. The lack of insight in schizophrenia is quite common in schizophrenia. Medications as well as counselling can help patients develop awareness that they do have a medical illness and that they should adhere to their medication in order to achieve remission and ultimately recovery.

While a complete list of schizophrenia symptoms may be extensive and complicated, most patients experience some but not all of this wide range of symptoms. It may even be difficult for one person with schizophrenia to understand and relate to what another person with schizophrenia is experiencing. For example, a patient with hallucinations may find it hard to imagine how it would feel to experience paranoia.

## Medications

Schizophrenia medications available today, which reduce or eliminate symptoms, are called antipsychotics. Examples include Risperdal, Zyprexa, Seroquel, and Abilify. Clozaril is an antipsychotic that can work when several other antipsychotics fail to control the psychotic symptoms like hallucinations or delusions.

Some people with schizophrenia experience full recovery (becoming asymptomatic, or nearly asymptomatic) and work, or continue to pursue higher education. A sizeable proportion will have at least partial recovery and may be able to function at some level in the community.

These people may choose to not disclose their schizophrenia, because of common misperceptions misunderstandings of schizophrenia, and the unfair stigma associated with it.

### **Misunderstanding Schizophrenia**

Typical symptoms of schizophrenia may be very different than sensational stories in the news media. The media sometimes wrongly portrays people with schizophrenia as impossible to relate to, dangerous, or weak. What a patient may experience is very different than what they thought schizophrenia actually is.

Common myths of schizophrenia include the erroneous idea that people with schizophrenia have multiple personalities, a split mind, a flawed personality, or a low IQ.

Actually, schizophrenia is completely different from multiple personality disorder, and does not represent a flawed personality either. Anyone, including highly intelligent persons, any socioeconomic status, or race can develop it. Like cancer, diabetes, autism, and other medical problems, it cannot be simply overcome by willpower.

People with schizophrenia who take their medications regularly and do not abuse drugs are NOT dangerous. In fact, statistically, people with schizophrenia are no more dangerous than the general population, and they are more likely to become victims than perpetrators of crimes. Antisocial personality disorder is a far more common disorder in criminals and is strongly associated with criminality, unlike schizophrenia.

It is also important to note that the suicide rate in schizophrenia is high and second only to the suicide rate in major depression. However, antidepressants can help reduce the suicide risk, as well as clozapine which is approved by the FDA for suicidality in schizophrenia.

### **Theories of Schizophrenia**

There are numerous theories of the actual pathology in schizophrenia and that is because there are probably hundreds of different biological subtypes of schizophrenia, which share similar clinical features. Broadly speaking, disrupted brain development during fetal life is the biological basis of this syndrome. Two brain neurotransmitters are thought to be central to the basis of schizophrenia. Underactivity of the glutamate NMDA receptor neurotransmitter pathway is a leading theory of schizophrenia based on many lines of evidence, and dopamine overactivity in schizophrenia may in fact be due to low activity of glutamate. Some of the strongest evidence that schizophrenia may be due to reduced activity of the glutamate NMDA activity is that PCP, or Angel Dust, which is a drug of abuse, can transform a healthy person into someone with a psychiatric illness that is indistinguishable from schizophrenia, including

positive, negative, and cognitive symptoms. PCP is a very potent blocker of the glutamate NMDA receptor.

## Recovery

The psychotic symptoms of schizophrenia are quite treatable. However, there are still no known treatments for the negative symptoms and cognitive deficits of schizophrenia. There is no shame in having schizophrenia, or in taking a medication for it, or for any other medical illness. Schizophrenia is no one's fault, any more than asthma, an infection, hypertension, diabetes, arthritis, or cancer.

By emphasizing that schizophrenia is an illness of the brain, and comparing it to other neurological brain diseases, it is very likely that the stigma of schizophrenia can eventually fade away. Stigma towards schizophrenia is a harmful consequence of poor understanding and irrational fear and it can have a very demoralizing effect on the individuals who are suffering from this serious neuropsychiatric disorder. The general public should show people with schizophrenia the same compassion, acceptance and understanding that is extended to people with all other medical conditions like heart disease or cancer.

Today, on medication, full recovery from schizophrenia is possible, especially with clozapine, a medication approved by the FDA for hallucinations and delusions that do not improve with any of the dozen other antipsychotic drugs available in the U.S. Clozapine is also the only medication approved by the FDA for suicidal tendencies in schizophrenia, which is in fact quite common.

***For more information, check out [www.curesz.org](http://www.curesz.org). Thanks for visiting!***