**INTRODUCTION**

**Schizophrenia** is a [mental disorder](http://en.wikipedia.org/wiki/Mental_disorder) characterized by an breakdown of [thought](http://en.wikipedia.org/wiki/Cognitive_psychology) processes and by a deficit of typical [emotional](http://en.wikipedia.org/wiki/Emotion)responses. Common [symptoms](http://en.wikipedia.org/wiki/Symptom) are [delusions](http://en.wikipedia.org/wiki/Delusion) including [paranoia](http://en.wikipedia.org/wiki/Paranoia) and [auditory hallucinations](http://en.wikipedia.org/wiki/Auditory_hallucination), [disorganized thinking](http://en.wikipedia.org/wiki/Thought_disorder) reflected in speech, and a lack of [emotional intelligence](http://en.wikipedia.org/wiki/Emotional_intelligence). It is accompanied by significant social or [vocational](http://en.wikipedia.org/wiki/Vocational) dysfunction. The onset of symptoms typically occurs in young adulthood, with a global lifetime [prevalence](http://en.wikipedia.org/wiki/Prevalence) of about 0.3–0.7%.Diagnosis is based on observed behavior and the patient's reported experiences.

[Genetics](http://en.wikipedia.org/wiki/Genetics), early environment, [neurobiology](http://en.wikipedia.org/wiki/Neurobiology), and [psychological](http://en.wikipedia.org/wiki/Psychology) and social processes appear to be important contributory factors; some recreational and prescription drugs appear to cause or worsen symptoms. Current research is focused on the role of neurobiology, although no single isolated organic cause has been found. The many possible combinations of symptoms have triggered debate about whether the diagnosis represents a single disorder or a number of discrete syndromes.

## TYPES OF SCHIZOPHRENIA

## Schizoaffective Disorder

This type of schizophrenia is characterized by a combination of schizophrenia and mood (affective) disorder symptoms. Some experts disagree on whether this is a type of schizophrenia or a type of mood disorder. Some even wonder whether it should be treated as a distinct disorder.

The individual experiences a combination of schizophrenia symptoms (hallucinations, delusions) and mood disorder symptoms (mania or [**depression**](http://www.medicalnewstoday.com/articles/8933))

Catatonic Schizophrenia

This type of schizophrenia includes extremes of behavior, including:

* Catatonic excitement - overexcitement or hyperactivity, in which the patient may mimic sounds (echolalia) or movements (achopraxia) around them.
* Catatonic stupor - a dramatic reduction in activity in which the patient cannot speak, move or respond. Virtually all movements stops.

Sometimes an individual with [**catatonic schizophrenia**](http://www.medicalnewstoday.com/articles/192263) may deliberately assume bizarre body positions, or manifest unusual limb movements or facial contortions, occasionally resulting in the misdiagnosis with tardive dyskinesia.

Childhood Schizophrenia

Also known as childhood-onset schizophrenia or [**early-onset schizophrenia**](http://www.medicalnewstoday.com/articles/192104). This is basically the same as schizophrenia, but onset takes place earlier in life. Onset means the first appearance of the signs or symptoms of an illness.

In some cases of childhood schizophrenia onset occurs at the age of ten; and even earlier. Childhood schizophrenia can have a considerable impact on the child's ability to function properly.

Disorganized Schizophrenia (Hebephrenia)

Also known as **[hebephrenia](http://www.medicalnewstoday.com/articles/192361%22%20%5Co%20%22What%20Is%20Disorganized%20Schizophrenia%20%28Hebephrenia%29? What Causes Disorganized Schizophrenia?)** (hebephrenic schizophrenia), disorganized schizophrenia is thought to be an extreme expression of *disorganization syndrome*. It is characterized by incoherent and illogical thoughts and behaviors; i.e., disinhibited, agitated, and purposeless behavior.

Psychiatrists say disorganized schizophrenia is a more severe schizophrenia type because the patient cannot perform daily activities, such as preparing meals and taking care of personal hygiene (washing). People may not be able to understand what the patient is saying. The sufferer can become frustrated and agitated, causing him/her to lash out.

Paranoid Schizophrenia

In this type of schizophrenia the patient has false beliefs (delusions) that an individual or group of people are conspiring to harm them or members of their family.

As with most other types of schizophrenia, the patient commonly has auditory hallucinations (hearing things that are not real). The patient may also have delusions of personal grandeur - a false belief that they are much greater and more powerful and influential than they really are. He/she may spend a great deal of time thinking about ways to protect themselves from their supposed persecutors.

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**SYMPTOMS**

A person diagnosed with schizophrenia may experience [hallucinations](http://en.wikipedia.org/wiki/Hallucination) (most reported are [hearing voices](http://en.wikipedia.org/wiki/Auditory_hallucination)), [delusions](http://en.wikipedia.org/wiki/Delusion) (often bizarre or [persecutory](http://en.wikipedia.org/wiki/Persecutory_delusions) in nature), and [disorganized thinking and speech](http://en.wikipedia.org/wiki/Thought_disorder). The latter may range from loss of train of thought, to sentences only loosely connected in meaning, to incoherence known as [word salad](http://en.wikipedia.org/wiki/Schizophasia) in severe cases. Social withdrawal, sloppiness of dress and hygiene, and loss of motivation and judgment are all common in schizophrenia. There is often an observable pattern of emotional difficulty, for example lack of responsiveness.Impairment in [social cognition](http://en.wikipedia.org/wiki/Social_cognition) is associated with schizophrenia,as are symptoms of [paranoia](http://en.wikipedia.org/wiki/Paranoia); [social isolation](http://en.wikipedia.org/wiki/Social_isolation) commonly occurs. Difficulties in [working](http://en.wikipedia.org/wiki/Working_memory) and [long-term memory](http://en.wikipedia.org/wiki/Long-term_memory), [attention](http://en.wikipedia.org/wiki/Attention), [executive functioning](http://en.wikipedia.org/wiki/Executive_functions), and speed of [processing](http://en.wikipedia.org/wiki/Information_processing) also commonly occur. In one uncommon subtype, the person may be largely mute, remain motionless in bizarre postures, or exhibit purposeless agitation, all signs of [catatonia](http://en.wikipedia.org/wiki/Catatonia).About 30% to 50% of people with schizophrenia do not have insight; in other words, they do not accept their condition or its treatment. Treatment may have some effect on insight.People with schizophrenia often find facial emotion perception to be difficult.

### Positive symptoms

Schizophrenia is often described in terms of [positive and negative (or deficit) symptoms](http://en.wikipedia.org/wiki/Symptom#Positive_and_negative_symptoms). Positive symptoms are those that most individuals do not normally experience but are present in people with schizophrenia. They can include delusions, disordered thoughts and speech, and [tactile](http://en.wikipedia.org/wiki/Tactile), [auditory](http://en.wikipedia.org/wiki/Auditory_hallucination), [visual](http://en.wikipedia.org/wiki/Visual), [olfactory](http://en.wikipedia.org/wiki/Olfactory) and [gustatory](http://en.wikipedia.org/wiki/Gustatory) hallucinations, typically regarded as manifestations of [psychosis](http://en.wikipedia.org/wiki/Psychosis). Hallucinations are also typically related to the content of the delusional theme. Positive symptoms generally respond well to medication.

 **Negative symptoms**

Negative symptoms are deficits of normal emotional responses or of other thought processes, and respond less well to medication. They commonly include flat or [blunted affect](http://en.wikipedia.org/wiki/Blunted_affect) and emotion, poverty of speech ([alogia](http://en.wikipedia.org/wiki/Alogia%22%20%5Co%20%22Alogia)), inability to experience pleasure ([anhedonia](http://en.wikipedia.org/wiki/Anhedonia%22%20%5Co%20%22Anhedonia)), lack of desire to form relationships ([asociality](http://en.wikipedia.org/wiki/Asociality%22%20%5Co%20%22Asociality)), and lack of motivation ([avolition](http://en.wikipedia.org/wiki/Avolition%22%20%5Co%20%22Avolition)). Research suggests that negative symptoms contribute more to poor quality of life, functional disability, and the burden on others than do positive symptoms.  People with prominent negative symptoms often have a history of poor adjustment before the onset of illness, and response to medication is often limited.

### Onset

Late adolescence and early adulthood are peak periods for the onset of schizophrenia, critical years in a young adult's social and vocational development In 40% of men and 23% of women diagnosed with schizophrenia, the condition manifested itself before the age of 19. To minimize the developmental disruption associated with schizophrenia, much work has recently been done to identify and treat the [prodromal (pre-onset)](http://en.wikipedia.org/wiki/Prodrome) phase of the illness, which has been detected up to 30 months before the onset of symptoms Those who go on to develop schizophrenia may experience transient or self-limiting psychotic symptom] and the non-specific symptoms of social withdrawal, irritability, [dysphoria](http://en.wikipedia.org/wiki/Dysphoria%22%20%5Co%20%22Dysphoria), and clumsiness during the prodromal phase.

**CAUSES**

### Genetic

Estimates of [heritability](http://en.wikipedia.org/wiki/Heritability) vary because of the difficulty in separating the effects of genetics and the environment. The greatest risk for developing schizophrenia is having a [first-degree relative](http://en.wikipedia.org/wiki/First-degree_relative) with the disease (risk is 6.5%); more than 40% of [monozygotic twins](http://en.wikipedia.org/wiki/Monozygotic_twins) of those with schizophrenia are also affected. A child of two parents with schizophrenia has a 46% chance of developing the disorder. It is likely that many [genes](http://en.wikipedia.org/wiki/Genes) are involved, each of small effect and unknown transmission and expression. Many possible candidates have been proposed, including specific [copy number variations](http://en.wikipedia.org/wiki/Copy-number_variation), [NOTCH4](http://en.wikipedia.org/wiki/NOTCH4), and histone protein loci. A number of [genome-wide associations](http://en.wikipedia.org/wiki/Genome-wide_association_study) such as [zinc finger protein 804A](http://en.wikipedia.org/wiki/Zinc_finger_protein_804A) have also been linked. There appears to be significant overlap in the genetics of schizophrenia and [bipolar disorder](http://en.wikipedia.org/wiki/Bipolar_disorder). Evidence is emerging that the genetic architecture of schizophrenia involved both common and rare risk variation.

Assuming a hereditary basis, one question from [evolutionary psychology](http://en.wikipedia.org/wiki/Evolutionary_psychology) is why genes that increase the likelihood of psychosis evolved, assuming the condition would have been [maladaptive](http://en.wikipedia.org/wiki/Maladaptive) from an evolutionary point of view. One idea is that genes are involved in the evolution of language and [human nature](http://en.wikipedia.org/wiki/Human_nature), but to date such ideas remain little more than hypothetical in nature.

### Environment

Environmental factors associated with the development of schizophrenia include the living environment, drug use and prenatal stressors. Parenting style seems to have no major effect, although people with supportive parents do better than those with critical or hostile parentsLiving in an urban environment during childhood or as an adult has consistently been found to increase the risk of schizophrenia by a factor of two, even after taking into account [drug use](http://en.wikipedia.org/wiki/Recreational_drug_use), [ethnic group](http://en.wikipedia.org/wiki/Ethnic_group), and size of [social group](http://en.wikipedia.org/wiki/Social_group).  Other factors that play an important role include [social isolation](http://en.wikipedia.org/wiki/Social_isolation) and immigration related to social adversity, racial discrimination, family dysfunction, unemployment, and poor housing conditions.

#### Drug use

Amphetamine, cocaine, and to a lesser extent alcohol, can result in psychosis that presents very similarly to schizophrenia. Although it is not generally believed to be a cause of the illness, people with schizophrenia use [nicotine](http://en.wikipedia.org/wiki/Nicotine) at much greater rates than the general population. About half of those with schizophrenia use drugs or alcohol excessively. Evidence supports a link between earlier onset of psychotic illness and cannabis use; alcohol use is not associated with an earlier onset of psychosis. Other drugs may be used only as coping mechanisms by individuals who have schizophrenia to deal with depression, anxiety, boredom, and loneliness. There is evidence that [alcohol abuse](http://en.wikipedia.org/wiki/Alcohol_abuse) via a [kindling mechanism](http://en.wikipedia.org/wiki/Kindling_%28sedative-hypnotic_withdrawal%29) can occasionally cause the development of a chronic substance induced psychotic disorder, i.e. schizophrenia. The more often [cannabis](http://en.wikipedia.org/wiki/Cannabis) is used, the more likely a person is to develop a psychotic illness, with frequent use being correlated with twice the risk of psychosis and schizophrenia. Whether cannabis use is a contributory cause of schizophrenia, rather than a behavior that is simply associated with it, remains controversial.

**TREATMENT**

Schizophrenia is a chronic condition that requires lifelong treatment, even when symptoms have subsided. Treatment with medications and psychosocial therapy can help manage the condition. During crisis periods or times of severe symptoms, hospitalization may be necessary to ensure safety, proper nutrition, adequate sleep and basic hygiene.

A psychiatrist experienced in treating schizophrenia usually guides treatment. The treatment team also may include psychologists, social workers and psychiatric nurses and possibly a case manager to coordinate care. The full-team approach may be available in clinics with expertise in schizophrenia treatment.

**Medications**

Medications are the cornerstone of schizophrenia treatment. But because medications for schizophrenia can cause serious but rare side effects, people with schizophrenia may be reluctant to take them.

Antipsychotic medications are the most commonly prescribed to treat schizophrenia. They're thought to control symptoms by affecting the brain neurotransmitters dopamine and serotonin. A person's willingness to cooperate with treatment may affect medication choice. Someone who is uncooperative may need to be given injections instead of taking a pill. Someone who is agitated may need to be calmed initially with a benzodiazepine such as lorazepam (Ativan), which may be combined with an antipsychotic.

**CASE STUDY I**

Schizophrenia: Case study

Jack is a 27 year old man diagnosed with schizophrenia. He has been referred to Top Quality Rehabilitation (TQP) to provide supported employment services.

Jack graduated from high school and got a job working in a video store. After working for about 6 months Jack began to hear voices that told him he was no good. He also began to believe that his boss was planting small videocameras in the returned tapes to catch him making mistakes. Jack became increasingly agitated at work, particularly during busy times, and began "talking strangely" to customers. For example one customer asked for a tape to be reserved and Jack indicated that that tape may not be available because it had "surveilance photos of him that were being reviewed by the CIA".

After about a year Jack quit his job one night, yelling at his boss that he couldn't take the constant abuse of being watched by all the TV screens in the store and even in his own home.

Jack lived with his parents at that time. He became increasingly confused and agitated. His parent took him to the hospital where he was admitted. He was given [Thorazine](http://www.educ.drake.edu/nri/syllabi/reha222/Schizophrenia/medlist.html#Thorazine) by his psychiatrist, this is a very powerful psychotropic medication. However, he had painful twisting and contractions of his muscles. He was switched to [Haldol](http://www.educ.drake.edu/nri/syllabi/reha222/Schizophrenia/medlist.html#Haldol Decanoate) and had fewer side effects. From time to time Jack stopped taking his Haldol, and the voices and concerns over being watched became stronger.

During the past 7 years Jack was hospitalized 5 times. He applied for and now receives SSI, and with the assistance of a case manager has moved into his own apartment. He is now a member of a psychosocial "clubhouse" for people with mental illness. He attends the clubhouse 3 times a week. He answers the phone, and helps write the clubhouse newsletter. He has a few friends at the clubhouse, but he has never had a girlfriend. Jack told his case manager he would like to get a job so he can earn more money and maybe buy a car.

Jack is very worried about looking for a job. He doesn't know how to explain his disorder to a potential employer, and he is afraid of becoming overwhelmed. He likes movies and would like to work with them in some manner

**CASE STUDY II**

Simon is a 21 year old male who was diagnosed with schizophrenia several years ago. He

had his first psychotic episode at 17 during which he believed aliens were sucking out his

blood. He was scheduled and commenced on olanzapine. He has experienced 5 more

psychotic episodes including one depressive episode. After this episode, sodium valproate

was added to his medication and the anti-psychotic changed to risperidone. Some of the

psychotic episodes were related to the use of marijuana and/or speed. He has trouble

remembering to take his medications and is currently managed by a private psychiatrist and

credentialed mental health nurse (under the Mental Health Nurse Incentive Program). He

continues to occasionally use speed and smokes over 30 cigarettes a day.

Currently, Simon is on a disability pension and lives in rented accommodation. He gets

emotional and financial support from his family and has a few friends but generally finds it

hard to relate to others. He has been employed twice but been asked to leave on both.