What is Schizophrenia?

Schizophrenia is a serious disorder which affects how a person thinks, feels and acts. Someone with schizophrenia may have difficulty distinguishing between what is real and what is imaginary; may be unresponsive or withdrawn; and may have difficulty expressing normal emotions in social situations.

Contrary to public perception, schizophrenia is not split personality or multiple personality. The vast majority of people with schizophrenia are not violent and do not pose a danger to others. Schizophrenia is not caused by childhood experiences, poor parenting or lack of willpower, nor are the symptoms identical for each person.

What Causes Schizophrenia?

The cause of schizophrenia is still unclear. Some theories about the cause of this disease include: genetics (heredity), biology (abnormalities in the brain’s chemistry or structure); and/or possible viral infections and immune disorders.

Genetics (Heredity)

Scientists recognize that the disorder tends to run in families and that a person inherits a tendency to develop the disease. Similar to some other genetically-related illnesses, schizophrenia may appear when the body undergoes hormonal and physical changes (like those that occur during puberty in the teen and young adult years) or after dealing with highly stressful situations.

Biology

Chemistry - Scientists believe that people with schizophrenia have an imbalance of the brain chemicals or neurotransmitters: dopamine, glutamate and serotonin. These neurotransmitters allow nerve cells in the brain to send messages to each other. The imbalance of these chemicals affects the way a person’s brain reacts to stimuli--which explains why a person with schizophrenia may be overwhelmed by sensory information (loud music or bright lights) which other people can easily handle. This problem in processing different sounds, sights, smells and tastes can also lead to hallucinations or delusions.

Structure - Some research suggests that problems with the development of connections and pathways in the brain while in the womb may later lead to schizophrenia.

Viral Infections and Immune Disorders

Schizophrenia may also be triggered by environmental events, such as viral infections or immune disorders. For instance, babies whose mothers get the flu while they are pregnant are at higher risk of developing schizophrenia later in life. People who are hospitalized for severe infections are also at higher risk.

What are the Early Warning Signs of Schizophrenia?

The signs of schizophrenia are different for everyone. Symptoms may develop slowly over months or years, or may appear very abruptly. The disease may come and go in cycles of relapse and remission.

Behaviors that are early warning signs of schizophrenia include:
• Hearing or seeing something that isn’t there
• A constant feeling of being watched
• Peculiar or nonsensical way of speaking or writing
• Strange body positioning
• Feeling indifferent to very important situations
• Deterioration of academic or work performance
• A change in personal hygiene and appearance
• A change in personality
• Increasing withdrawal from social situations
• Irrational, angry or fearful response to loved ones
• Inability to sleep or concentrate
• Inappropriate or bizarre behavior
• Extreme preoccupation with religion or the occult

Anyone who experiences several of these symptoms for more than two weeks should seek help immediately.

If you or someone you know are in crisis, call 1-800-273-TALK (8255), go to your local Emergency Room, or call 911.

What are the Symptoms of Schizophrenia?

A medical or mental health professional may use the following terms when discussing the symptoms of schizophrenia.

Positive symptoms are disturbances that are “added” to the person’s personality.

• **Delusions** – false ideas – individuals may believe that someone is spying on him or her, or that they are someone famous (or a religious figure).
• **Hallucinations** – seeing, feeling, tasting, hearing or smelling something that doesn’t really exist. The most common experience is hearing imaginary voices that give commands or comments to the individual.
• **Disordered thinking and speech** – moving from one topic to another, in a nonsensical fashion. Individuals may also make up their own words or sounds, rhyme in a way that doesn't make sense, or repeat words and ideas.
• **Disorganized behavior** – this can range from having problems with routine behaviors like hygiene or choosing appropriate clothing for the weather, to unprovoked outbursts, to impulsive and uninhibited actions. A person may also have movements that seem anxious, agitated, tense or constant without any apparent reason.

Negative symptoms are capabilities that are “lost” from the person’s personality.

• Social withdrawal
• Extreme apathy (lack of interest or enthusiasm)
• Lack of drive or initiative
• Emotional flatness
How is Schizophrenia Treated?

If you suspect someone you know is experiencing symptoms of schizophrenia, encourage them to see a medical or mental health professional immediately. Early treatment—even as early as the first episode—can mean a better long-term outcome.

Recovery and Rehabilitation

While no cure for schizophrenia exists, many people with this illness can lead productive and fulfilling lives with the proper treatment. Recovery is possible through a variety of services, including medication and rehabilitation programs. Rehabilitation can help a person recover the confidence and skills needed to live a productive and independent life in the community. Types of services that help a person with schizophrenia include:

- **Case management** helps people access services, financial assistance, treatment and other resources.
- **Psychosocial Rehabilitation Programs** are programs that help people regain skills such as: employment, cooking, cleaning, budgeting, shopping, socializing, problem solving, and stress management.
- **Self-help groups** provide ongoing support and information to persons with serious mental illness by individuals who experience mental illness themselves.
- **Drop-in centers** are places where individuals with mental illness can socialize and/or receive informal support and services on an as-needed basis.
- **Housing programs** offer a range of support and supervision from 24 hour supervised living to drop-in support as needed.
- **Employment programs** assist individuals in finding employment and/or gaining the skills necessary to re-enter the workforce.
- **Therapy/Counseling** includes different forms of “talk” therapy, both individual and group, that can help both the patient and family members to better understand the illness and share their concerns.
- **Crisis Services** include 24 hour hotlines, after hours counseling, residential placement and in-patient hospitalization.

Coordinated Specialty Care (CSC) has been found to be especially effective in improving outcomes for people after they experience their first episode of psychosis. Coordinated Specialty Care involves a team of providers who work with the individual using shared decision making to implement a multi-faceted program aimed at helping the individual to recover. CSC often includes a combination of case management, therapy, supported employment and education services, support and education for the family of the individual, and/or medication. The CSC team also works closely with the individual's primary care provider. Learn more about CSC through NIMH's Recovery After an Initial Schizophrenia Episode (RAISE) Project.

**Antipsychotic Medication**

**Medications** are often used to help control the symptoms of schizophrenia. They help to reduce the biochemical imbalances that cause schizophrenia and decrease the likelihood of relapse. Like all medications, however, antipsychotic medications should be taken only under the supervision of a mental health professional. Atypical (or "New Generation") antipsychotics are less likely to cause some of the severe side effects associated with typical antipsychotics (i.e. tardive dyskinesia, dystonia, tremors).

There are two major types of antipsychotic medication:

- **Typical ("conventional") antipsychotics** effectively control the “positive" symptoms such as hallucinations, delusions, and confusion of schizophrenia. Some typical antipsychotics are:
Chlorpromazine (Thorazine)
Haloperidol (Haldol)
Mesoridazine (Serentil)
Perphenazine (Trilafon)
Fluphenazine (Proxlixin)
Thioridazine (Mellaril)
Thiothixene (Navane)
Trifluoperazine (Stelazine)

- **Atypical ("New Generation") antipsychotics** treat both the positive and negative symptoms of schizophrenia, often with fewer side effects. Some atypical antipsychotics are:

  Aripiprazole (Abilify, Aristada)
  Asenapine (Saphris)
  Brexpiprazole (Rexulti)
  Cariprazine (Vraylar)
  Clozapine (Clozaril, FazaClo, Versacloz)
  Iloperidone (Fanapt)
  Lurasidone (Latuda)
  Olanzapine (Zyprexa)
  Paliperidone (Invega)
  Quetiapine (Seroquel)
  Risperidone (Risperdal)
  Ziprasidone (Geodon)

A third, smaller category of drugs used to treat schizophrenia is known as "miscellaneous antipsychotic agents." Miscellaneous antipsychotic agents function differently than typical or atypical antipsychotic medications. Loxapine (Adasuve, Loxitane) is one such miscellaneous antipsychotic and is used to treat agitation in people with schizophrenia.

**Side effects** are common with antipsychotic drugs. They range from mild side effects such as dry mouth, blurred vision, constipation, drowsiness and dizziness which usually disappear after a few weeks to more serious side effects such as trouble with muscle control, pacing, tremors and facial ticks. The newer generation of drugs have fewer side effects. However, it is important to talk with your mental health professional before making any changes in medication since many side effects can be controlled.

**Other Resources**
National Suicide Prevention Lifeline
1-800-273-TALK (8255)
http://www.suicidepreventionlifeline.org/

National Schizophrenia Foundation
http://www.sardaa.org/

National Institute of Mental Health
1-866-615-6464
nimhinfo@nih.gov (e-mail)
www.nimh.nih.gov