The disorders in this section include Schizophrenia, Schizoaffective Disorder, Delusional Disorder, Brief Psychotic Disorder, Shared Psychotic Disorder, Psychotic Disorder Due to a General Medical Condition, Substance-Induced Psychotic Disorder, and Psychotic Disorder Not Otherwise Specified. These disorders have been grouped together to facilitate the differential diagnosis of disorders that include psychotic symptoms as a prominent aspect of their presentation. Other disorders that may present with psychotic symptoms as associated features are included elsewhere in the manual (e.g., Dementia of the Alzheimer's Type and Substance-Induced Delirium in the "Delirium, Dementia, and Amnestic and Other Cognitive Disorders" section; Major Depressive Disorder, With Psychotic Features, in the "Mood Disorders" section). Despite the fact that these disorders are grouped together in this chapter, it should be understood that psychotic symptoms are not necessarily considered to be core or fundamental features of these disorders, nor do the disorders in this section necessarily have a common etiology. In fact, a number of studies suggest closer etiological associations between Schizophrenia and other disorders that, by definition, do not present with psychotic symptoms (e.g., Schizotypal Personality Disorder).

The term *psychotic* has historically received a number of different definitions, none of which has achieved universal acceptance. The narrowest definition of *psychotic* is restricted to delusions or prominent hallucinations, with the hallucinations occurring in the absence of insight into their pathological nature. A slightly less restrictive definition would also include prominent hallucinations that the individual realizes are hallucinatory experiences. Broader still is a definition that also includes other positive symptoms of Schizophrenia (i.e., disorganized speech, grossly disorganized or catatonic behavior). Unlike these definitions based on symptoms, the definition used in earlier classifications (e.g., DSM-II and ICD-9) was probably far too inclusive and focused on the severity of functional impairment. In that context, a mental disorder was termed "psychotic" if it resulted in "impairment that grossly interferes with the capacity to meet ordinary demands of life." The term has also previously been defined as a "loss of ego boundaries" or a "gross impairment in reality testing."

In this manual, the term *psychotic* refers to the presence of certain symptoms. However, the specific constellation of symptoms to which the term refers varies to some extent across the diagnostic categories. In Schizophrenia, Schizoaffective Disorder, Schizoaffective Disorder, and Brief Psychotic Disorder, the term *psychotic* refers to delusions, any prominent hallucinations, disorganized speech, or disorganized or catatonic behavior. In Psychotic Disorder Due to a General Medical Condition and in
Substance-Induced Psychotic Disorder, psychotic refers to delusions or only those hallucinations that are not accompanied by insight. Finally, in Delusional Disorder and Shared Psychotic Disorder, psychotic is equivalent to delusional.

The following disorders are included in this section:

**Schizophrenia** is a disorder that lasts for at least 6 months and includes at least 1 month of active-phase symptoms (i.e., two [or more] of the following: delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behavior, negative symptoms). Definitions for the Schizophrenia subtypes (Paranoid, Disorganized, Catatonic, Undifferentiated, and Residual) are also included in this section.

**Schizoaffective Disorder** is a disorder in which a mood episode and the active-phase symptoms of Schizophrenia occur together and were preceded or are followed by at least 2 weeks of delusions or hallucinations without prominent mood symptoms.

**Delusional Disorder** is characterized by at least 1 month of nonbizarre delusions without other active-phase symptoms of Schizophrenia.

**Brief Psychotic Disorder** is a disorder that lasts more than 1 day and remits by 1 month.

**Shared Psychotic Disorder** is characterized by the presence of a delusion in an individual who is influenced by someone else who has a longer-standing delusion with similar content.

In **Psychotic Disorder Due to a General Medical Condition**, the psychotic symptoms are judged to be a direct physiological consequence of a general medical condition.

In **Substance-Induced Psychotic Disorder**, the psychotic symptoms are judged to be a direct physiological consequence of a drug of abuse, a medication, or toxin exposure.

**Psychotic Disorder Not Otherwise Specified** is included for classifying psychotic presentations that do not meet the criteria for any of the specific Psychotic Disorders defined in this section or psychotic symptomatology about which there is inadequate or contradictory information.

**Schizophrenia**

The essential features of Schizophrenia are a mixture of characteristic signs and symptoms (both positive and negative) that have been present for a significant portion of time during a 1-month period (or for a shorter time if successfully treated), with some signs of the disorder persisting for at least 6 months (Criteria A and C). These signs and symptoms are associated with marked social or occupational dysfunction (Criterion B). The disturbance is not better accounted for by Schizoaffective Disorder or a Mood Disorder With Psychotic Features and is not due to the direct physiological effects of a substance or a general medical condition (Criteria D and E). In individuals with a previous diagnosis of Autistic Disorder (or another Pervasive Developmental Disorder), the additional diagnosis of Schizophrenia is warranted.
only if prominent delusions or hallucinations are present for at least a month (Criterion F). The characteristic symptoms of Schizophrenia involve a range of cognitive and emotional dysfunctions that include perception, inferential thinking, language and communication, behavioral monitoring, affect, fluency and productivity of thought and speech, hedonic capacity, volition and drive, and attention. No single symptom is pathognomonic of Schizophrenia; the diagnosis involves the recognition of a constellation of signs and symptoms associated with impaired occupational or social functioning.

Characteristic symptoms (Criterion A) may be conceptualized as falling into two broad categories: positive and negative. The positive symptoms appear to reflect an excess or distortion of normal functions, whereas the negative symptoms appear to reflect a diminution or loss of normal functions. The positive symptoms (Criteria A1–A4) include distortions in thought content (delusions), perception (hallucinations), language and thought process (disorganized speech), and self-monitoring of behavior (grossly disorganized or catatonic behavior). These positive symptoms may comprise two distinct dimensions, which may in turn be related to different underlying neural mechanisms and clinical correlates. The “psychotic dimension” includes delusions and hallucinations, whereas the “disorganization dimension” includes disorganized speech and behavior. Negative symptoms (Criterion A5) include restrictions in the range and intensity of emotional expression (affective flattening), in the fluency and productivity of thought and speech (alogia), and in the initiation of goal-directed behavior (avolition).

Delusions (Criterion A1) are erroneous beliefs that usually involve a misinterpretation of perceptions or experiences. Their content may include a variety of themes (e.g., persecutory, referential, somatic, religious, or grandiose). Persecutory delusions are most common; the person believes he or she is being tormented, followed, tricked, spied on, or ridiculed. Referential delusions are also common; the person believes that certain gestures, comments, passages from books, newspapers, song lyrics, or other environmental cues are specifically directed at him or her. The distinction between a delusion and a strongly held idea is sometimes difficult to make and depends in part on the degree of conviction with which the belief is held despite clear contradictory evidence regarding its veracity.

Although bizarre delusions are considered to be especially characteristic of Schizophrenia, “bizarreness” may be difficult to judge, especially across different cultures. Delusions are deemed bizarre if they are clearly implausible and not understandable and do not derive from ordinary life experiences. An example of a bizarre delusion is a person’s belief that a stranger has removed his or her internal organs and has replaced them with someone else’s organs without leaving any wounds or scars. An example of a nonbizarre delusion is a person’s false belief that he or she is under surveillance by the police. Delusions that express a loss of control over mind or body are generally considered to be bizarre; these include a person’s belief that his or her thoughts have been taken away by some outside force (“thought withdrawal”), that alien thoughts have been put into his or her mind (“thought insertion”), or that his or her body or actions are being acted on or manipulated by some outside force (“delusions of control”). If the delusions are judged to be bizarre, only this single symptom is needed to satisfy Criterion A for Schizophrenia.

Hallucinations (Criterion A2) may occur in any sensory modality (e.g., auditory,
visual, olfactory, gustatory, and tactile), but auditory hallucinations are by far the most common. Auditory hallucinations are usually experienced as voices, whether familiar or unfamiliar, that are perceived as distinct from the person’s own thoughts. The hallucinations must occur in the context of a clear sensorium; those that occur while falling asleep (hypnagogic) or waking up (hypnopompic) are considered to be within the range of normal experience. Isolated experiences of hearing one’s name called or experiences that lack the quality of an external percept (e.g., a humming in one’s head) should also not be considered as symptomatic of Schizophrenia or any other Psychotic Disorder. Hallucinations may be a normal part of religious experience in certain cultural contexts. Certain types of auditory hallucinations (i.e., two or more voices conversing with one another or voices maintaining a running commentary on the person’s thoughts or behavior) have been considered to be particularly characteristic of Schizophrenia. If these types of hallucinations are present, then only this single symptom is needed to satisfy Criterion A.

Disorganized thinking ("formal thought disorder") has been argued by some to be the single most important feature of Schizophrenia. Because of the difficulty inherent in developing an objective definition of "thought disorder," and because in a clinical setting inferences about thought are based primarily on the individual’s speech, the concept of disorganized speech (Criterion A3) has been emphasized in the definition for Schizophrenia used in this manual. The speech of individuals with Schizophrenia may be disorganized in a variety of ways. The person may "slip off the track" from one topic to another ("derailment" or "loose associations"); answers to questions may be obliquely related or completely unrelated ("tangentiality"); and, rarely, speech may be so severely disorganized that it is nearly incomprehensible and resembles receptive aphasia in its linguistic disorganization ("incoherence" or "word salad"). Because mildly disorganized speech is common and nonspecific, the symptom must be severe enough to substantially impair effective communication. Less severe disorganized thinking or speech may occur during the prodromal and residual periods of Schizophrenia (see Criterion C).

Grossly disorganized behavior (Criterion A4) may manifest itself in a variety of ways, ranging from childlike silliness to unpredictable agitation. Problems may be noted in any form of goal-directed behavior, leading to difficulties in performing activities of daily living such as preparing a meal or maintaining hygiene. The person may appear markedly disheveled, may dress in an unusual manner (e.g., wearing multiple overcoats, scarves, and gloves on a hot day), or may display clearly inappropriate sexual behavior (e.g., public masturbation) or unpredictable and untriggered agitation (e.g., shouting or swearing). Care should be taken not to apply this criterion too broadly. For example, a few instances of restless, angry, or agitated behavior should not be considered to be evidence of Schizophrenia, especially if the motivation is understandable.

Catatonic motor behaviors (Criterion A4) include a marked decrease in reactivity to the environment, sometimes reaching an extreme degree of complete unawareness (catatonic stupor), maintaining a rigid posture and resisting efforts to be moved (catatonic rigidity), active resistance to instructions or attempts to be moved (catatonic negativism), the assumption of inappropriate or bizarre postures (catatonic posturing), or purposeless and unstimulated excessive motor activity (catatonic excitement). Although catatonia has historically been associated with Schizophrenia, the
clinician should keep in mind that catatonic symptoms are nonspecific and may occur in other mental disorders (see Mood Disorders With Catatonic Features, p. 417), in general medical conditions (see Catatonic Disorder Due to a General Medical Condition, p. 185), and Medication-Induced Movement Disorders (see Neuroleptic-Induced Parkinsonism, p. 792).

The negative symptoms of Schizophrenia (Criterion A5) account for a substantial degree of the morbidity associated with the disorder. Three negative symptoms—affective flattening, alogia, and avolition—are included in the definition of Schizophrenia; other negative symptoms (e.g., anhedonia) are noted in the “Associated Features and Disorders” section below. Affective flattening is especially common and is characterized by the person’s face appearing immobile and unresponsive, with poor eye contact and reduced body language. Although a person with affective flattening may smile and warm up occasionally, his or her range of emotional expressiveness is clearly diminished most of the time. It may be useful to observe the person interacting with peers to determine whether affective flattening is sufficiently persistent to meet the criterion. Alogia (poverty of speech) is manifested by brief, laconic, empty replies. The individual with alogia appears to have a diminution of thoughts that is reflected in decreased fluency and productivity of speech. This must be differentiated from an unwillingness to speak, a clinical judgment that may require observation over time and in a variety of situations. Avolition is characterized by an inability to initiate and persist in goal-directed activities. The person may sit for long periods of time and show little interest in participating in work or social activities.

Although common in Schizophrenia, negative symptoms are difficult to evaluate because they occur on a continuum with normality, are relatively nonspecific, and may be due to a variety of other factors (including positive symptoms, medication side effects, depression, environmental understimulation, or demoralization). If a negative symptom is judged to be clearly attributable to any of these factors, then it should not be considered in making the diagnosis of Schizophrenia. For example, the behavior of an individual who has the delusional belief that he will be in danger if he leaves his room or talks to anyone may mimic social isolation, avolition, and alogia. Certain antipsychotic medications often produce extrapyramidal side effects, such as bradykinesia, that may mimic affective flattening. The distinction between true negative symptoms and medication side effects often depends on clinical judgment concerning the type of antipsychotic medication, the effects of anticholinergic medications, and dosage adjustments. The difficult distinction between negative symptoms and depressive symptoms may be informed by the other accompanying symptoms that are present and the fact that individuals with symptoms of depression typically experience an intensely painful affect, whereas those with Schizophrenia have a diminution or emptiness of affect. Finally, chronic environmental understimulation or demoralization may result in learned apathy and avolition. In establishing the presence of negative symptoms that are to be used in making the diagnosis of Schizophrenia, perhaps the best test is their persistence for a considerable period of time despite efforts directed at resolving each of the potential causes described above. It has been suggested that enduring negative symptoms that are not attributable to the secondary causes described above be referred to as “deficit” symptoms.

Criterion A for Schizophrenia requires that at least two of the five items be present concurrently for much of at least 1 month. However, if delusions are bizarre or hallu-
cinations involve “voices commenting” or “voices conversing,” then the presence of only one item is required. The presence of this relatively severe constellation of signs and symptoms is referred to as the “active phase.” In those situations in which the active-phase symptoms remit within a month in response to treatment, Criterion A can still be considered to have been met if the clinician judges that the symptoms would have persisted for a month in the absence of effective treatment. In children, evaluation of the characteristic symptoms should include due consideration of the presence of other disorders or developmental difficulties. For example, the disorganized speech in a child with a Communication Disorder should not count toward a diagnosis of Schizophrenia unless the degree of disorganization is significantly greater than would be expected on the basis of the Communication Disorder alone.

Schizophrenia involves dysfunction in one or more major areas of functioning (e.g., interpersonal relations, work or education, or self-care) (Criterion B). Typically, functioning is clearly below that which had been achieved before the onset of symptoms. If the disturbance begins in childhood or adolescence, however, there may be a failure to achieve what would have been expected for the individual rather than a deterioration in functioning. Comparing the individual with unaffected siblings may be helpful in making this determination. Educational progress is frequently disrupted, and the individual may be unable to finish school. Many individuals are unable to hold a job for sustained periods of time and are employed at a lower level than their parents (“downward drift”). The majority (60%-70%) of individuals with Schizophrenia do not marry, and most have relatively limited social contacts. The dysfunction persists for a substantial period during the course of the disorder and does not appear to be a direct result of any single feature. For example, if a woman quits her job because of the circumscribed delusion that her boss is trying to kill her, this alone is not sufficient evidence for this criterion unless there is a more pervasive pattern of difficulties (usually in multiple domains of functioning).

Some signs of the disturbance must persist for a continuous period of at least 6 months (Criterion C). During that time period, there must be at least 1 month of symptoms (or less than 1 month if symptoms are successfully treated) that meet Criterion A of Schizophrenia (the active phase). Prodromal symptoms are often present prior to the active phase, and residual symptoms may follow it. Some prodromal and residual symptoms are relatively mild or subthreshold forms of the positive symptoms specified in Criterion A. Individuals may express a variety of unusual or odd beliefs that are not of delusional proportions (e.g., ideas of reference or magical thinking); they may have unusual perceptual experiences (e.g., sensing the presence of an unseen person or force in the absence of formed hallucinations); their speech may be generally understandable but digressive, vague, or overly abstract or concrete; and their behavior may be peculiar but not grossly disorganized (e.g., mumbling to themselves, collecting odd and apparently worthless objects). In addition to these positive-like symptoms, negative symptoms are particularly common in the prodromal and residual phases and can often be quite severe. Individuals who had been socially active may become withdrawn; they lose interest in previously pleasurable activities; they may become less talkative and inquisitive; and they may spend the bulk of their time in bed. Such negative symptoms are often the first sign to the family that something is wrong; family members may ultimately report that they experienced the individual as “gradually slipping away.”
Subtypes and Course Specifiers

The diagnosis of a particular subtype is based on the clinical picture that occasioned the most recent evaluation or admission to clinical care and may therefore change over time. Separate text and criteria are provided for each of the following subtypes:

- 295.30 Paranoid Type (see p. 313)
- 295.10 Disorganized Type (see p. 314)
- 295.20 Catatonic Type (see p. 315)
- 295.90 Undifferentiated Type (see p. 316)
- 295.60 Residual Type (see p. 316)

The following specifiers may be used to indicate the characteristic course of symptoms of Schizophrenia over time. These specifiers can be applied only after at least 1 year has elapsed since the initial onset of active-phase symptoms. During this initial 1-year period, no course specifiers can be given.

- **Episodic With Interepisode Residual Symptoms.** This specifier applies when the course is characterized by episodes in which Criterion A for Schizophrenia is met and there are clinically significant residual symptoms between the episodes. *With Prominent Negative Symptoms* can be added if prominent negative symptoms are present during these residual periods.

- **Episodic With No Interepisode Residual Symptoms.** This specifier applies when the course is characterized by episodes in which Criterion A for Schizophrenia is met and there are no clinically significant residual symptoms between the episodes.

- **Continuous.** This specifier applies when characteristic symptoms of Criterion A are met throughout all (or most) of the course. *With Prominent Negative Symptoms* can be added if prominent negative symptoms are also present.

- **Single Episode In Partial Remission.** This specifier applies when there has been a single episode in which Criterion A for Schizophrenia is met and some clinically significant residual symptoms remain. *With Prominent Negative Symptoms* can be added if these residual symptoms include prominent negative symptoms.

- **Single Episode In Full Remission.** This specifier applies when there has been a single episode in which Criterion A for Schizophrenia has been met and no clinically significant residual symptoms remain.

- **Other or Unspecified Pattern.** This specifier is used if another or an unspecified course pattern has been present.

Recording Procedures

The diagnostic code for Schizophrenia is selected based on the appropriate subtype: 295.30 for Paranoid Type, 295.10 for Disorganized Type, 295.20 for Catatonic Type, 295.90 for Undifferentiated Type, and 295.60 for Residual Type. There are no fifth-digit codes available for the course specifiers. In recording the name of the disorder, the course specifiers are noted after the appropriate subtype (e.g., 295.30 Schizophrenia, Paranoid Type, Episodic With Interepisode Residual Symptoms, With Prominent Negative Symptoms).
Associated Features and Disorders

**Associated descriptive features and mental disorders.** The individual with Schizophrenia may display inappropriate affect (e.g., smiling, laughing, or a silly facial expression in the absence of an appropriate stimulus), which is one of the defining features of the Disorganized Type. Anhedonia is common and is manifested by a loss of interest or pleasure. Dysphoric mood may take the form of depression, anxiety, or anger. There may be disturbances in sleep pattern (e.g., sleeping during the day and nighttime activity or restlessness). The individual may show a lack of interest in eating or may refuse food as a consequence of delusional beliefs. Often there are abnormalities of psychomotor activity (e.g., pacing, rocking, or apathetic immobility). Difficulty in concentration, attention, and memory is frequently evident.

A majority of individuals with Schizophrenia have poor insight regarding the fact that they have a psychotic illness. Evidence suggests that poor insight is a manifestation of the illness itself rather than a coping strategy. It may be comparable to the lack of awareness of neurological deficits seen in stroke, termed anosognosia. This symptom predisposes the individual to noncompliance with treatment and has been found to be predictive of higher relapse rates, increased number of involuntary hospital admissions, poorer psychosocial functioning, and a poorer course of illness.

Depersonalization, derealization, and somatic concerns may occur and sometimes reach delusional proportions. Anxiety and phobias are common in Schizophrenia. Motor abnormalities (e.g., grimacing, posturing, odd mannerisms, ritualistic or stereotyped behavior) are sometimes present. The life expectancy of individuals with Schizophrenia is shorter than that of the general population for a variety of reasons. Suicide is an important factor, because approximately 10% of individuals with Schizophrenia commit suicide—and between 20% and 40% make at least one attempt over the course of the illness. Although the risk remains high over the whole lifespan, specific risk factors for suicide include male gender, being under 45 years of age, depressive symptoms, feelings of hopelessness, unemployment, and recent hospital discharge. Suicide risk is also elevated during postpsychotic periods. Males successfully complete suicide more often than females, but both groups are at increased risk relative to the general population.

Many studies have reported that subgroups of individuals diagnosed with Schizophrenia have a higher incidence of assaultive and violent behavior. The major predictors of violent behavior are male gender, younger age, past history of violence, noncompliance with antipsychotic medication, and excessive substance use. However, it should be noted that most individuals with Schizophrenia are not more dangerous to others than those in the general population.

Rates of comorbidity with Substance-Related Disorders are high. Nicotine Dependence is especially high, with estimates ranging from 80% to 90% of individuals with Schizophrenia being regular cigarette smokers. Furthermore, these individuals tend to smoke heavily and to choose cigarettes with high nicotine content. Comorbidity with Anxiety Disorders has also been increasingly recognized in Schizophrenia. In particular, rates of Obsessive-Compulsive Disorder and Panic Disorder are elevated in individuals with Schizophrenia relative to the general population. Schizotypal, Schizoid, or Paranoid Personality Disorder may sometimes precede the onset of Schizophrenia. Whether these Personality Disorders are simply prodromal to Schizo-
Schizophrenia or whether they constitute a separate earlier disorder is not clear.

An increased risk of Schizophrenia has been found in association with prenatal and childhood factors (e.g., prenatal exposure to flu, prenatal exposure to famine, obstetric complications, central nervous system infection in early childhood).

**Associated laboratory findings.** No laboratory findings have been identified that are diagnostic of Schizophrenia. However, a variety of measures from neuroimaging, neuropsychological, and neurophysiological studies have shown differences between groups of individuals with Schizophrenia and appropriately matched control subjects. In the structural neuroimaging literature, the most widely studied and most consistently replicated finding continues to be enlargement of the lateral ventricles. Many studies have also demonstrated decreased brain tissue as evidenced by widened cortical sulci and decreased volumes of gray and white matter. However, there is ongoing controversy as to whether the apparent decrease in brain tissue is a focal as opposed to a more diffuse process. When examined by region, the temporal lobe has most consistently been found to be decreased in volume, while the frontal lobe is implicated less often. Within the temporal lobe, there is evidence of focal abnormalities, with medial temporal structures (hippocampus, amygdala, and entorhinal cortex), as well as the superior temporal gyrus and planum temporale, most consistently found to be smaller in volume. Decreased thalamic volume has also been observed in both individuals with Schizophrenia and their unaffected first-degree relatives, but fewer studies have looked at this. Another finding that has been consistently replicated is that of increased basal ganglia size, but there is increasing evidence that this may be an epiphenomenon of treatment with typical neuroleptic medication. An increased incidence of large cavum septum pellucidi has also been demonstrated in individuals with Schizophrenia. This may have important pathophysiological implications, because it is suggestive of an early (i.e., prenatal) midline developmental brain abnormality, at least in a subgroup of individuals with Schizophrenia.

In terms of functional brain imaging studies, hypofrontality (i.e., a relative decrease in cerebral blood flow, metabolism, or some other proxy for neural activity) continues to be the most consistently replicated finding. However, there is increasing recognition that functional abnormalities are unlikely to be limited to any one brain region, and most of the more recent studies suggest more widespread abnormalities involving cortical-subcortical circuitry.

Neuropsychological deficits are a consistent finding in groups of individuals with Schizophrenia. Deficits are evident across a range of cognitive abilities, including memory, psychomotor abilities, attention, and difficulty in changing response set. In addition to the presence of these deficits among chronically ill individuals with Schizophrenia, there is increasing evidence that many of these deficits are found among individuals during their first psychotic episode and prior to treatment with antipsychotic medication, in individuals with Schizophrenia who are in clinical remission, as well as in unaffected first-degree relatives. For these reasons, some of the neuropsychological deficits are thought to reflect more fundamental features of the illness and, perhaps, to reveal vulnerability factors for Schizophrenia. These deficits are clinically meaningful in that they are related to the degree of difficulty that some individuals with Schizophrenia have with activities of daily living as well as the ability to acquire skills in psychosocial rehabilitation. Accordingly, the severity of neu-
ropsychological deficits is a relatively strong predictor of social and vocational outcome.

Several neurophysiological abnormalities have been demonstrated in groups of individuals with Schizophrenia. Among the most common are deficits in the perception and processing of sensory stimuli (e.g., impairment in sensory gating), abnormal smooth pursuit and saccadic eye movements, slowed reaction time, alterations in brain laterality, and abnormalities in evoked potential electroencephalograms.

Abnormal laboratory findings may also be noted as a complication either of Schizophrenia or of its treatment. Some individuals with Schizophrenia drink excessive amounts of fluid ("water intoxication") and develop abnormalities in urine specific gravity or electrolyte imbalances. Elevated creatine phosphokinase (CPK) levels may result from Neuroleptic Malignant Syndrome (see p. 795).

**Associated physical examination findings and general medical conditions.** Individuals with Schizophrenia are sometimes physically awkward and may display neurological "soft signs," such as left/right confusion, poor coordination, or mirroring. Some minor physical anomalies (e.g., highly arched palate, narrow- or wide-set eyes or subtle malformations of the ears) may be more common among individuals with Schizophrenia. Perhaps the most common associated physical findings are motor abnormalities. Most of these are likely to be related to side effects from treatment with antipsychotic medications. Motor abnormalities that are secondary to neuroleptic treatment include Neuroleptic-Induced Tardive Dyskinesia (see p. 803), Neuroleptic-Induced Parkinsonism (see p. 792), Neuroleptic-Induced Acute Akathisia (see p. 800), Neuroleptic-Induced Acute Dystonia (see p. 798), and Neuroleptic Malignant Syndrome (see p. 795). Spontaneous motor abnormalities resembling those that may be induced by neuroleptics (e.g., sniffing, tongue clucking, grunting) had been described in the preneuroleptic era and are also still observed, although they may be difficult to distinguish from neuroleptic effects. Other physical findings may be related to frequently associated disorders. For example, because Nicotine Dependence is so common in Schizophrenia, these individuals are more likely to develop cigarette-related pathology (e.g., emphysema and other pulmonary and cardiac problems).

**Specific Culture, Age, and Gender Features**

Clinicians assessing the symptoms of Schizophrenia in socioeconomic or cultural situations that are different from their own must take cultural differences into account. Ideas that may appear to be delusional in one culture (e.g., sorcery and witchcraft) may be commonly held in another. In some cultures, visual or auditory hallucinations with a religious content may be a normal part of religious experience (e.g., seeing the Virgin Mary or hearing God’s voice). In addition, the assessment of disorganized speech may be made difficult by linguistic variation in narrative styles across cultures that affects the logical form of verbal presentation. The assessment of affect requires sensitivity to differences in styles of emotional expression, eye contact, and body language, which vary across cultures. If the assessment is conducted in a language that is different from the individual’s primary language, care must be taken to ensure that alogia is not related to linguistic barriers. Because the cultural meaning of self-initiated, goal-directed activity can be expected to vary across diverse settings, disturbances of volition must also be carefully assessed.
There is some evidence that clinicians may have a tendency to overdiagnose Schizophrenia in some ethnic groups. Studies conducted in the United Kingdom and the United States suggest that Schizophrenia may be diagnosed more often in individuals who are African American and Asian American than in other racial groups. It is not clear, however, whether these findings represent true differences among racial groups or whether they are the result of clinician bias or cultural insensitivity. Cultural differences have been noted in the presentation, course, and outcome of Schizophrenia. Catatonic behavior has been reported as relatively uncommon among individuals with Schizophrenia in the United States but is more common in non-Western countries. Individuals with Schizophrenia in developing nations tend to have a more acute course and a better outcome than do individuals in industrialized nations.

The onset of Schizophrenia typically occurs between the late teens and the mid-30s, with onset prior to adolescence rare (although cases with age at onset of 5 or 6 years have been reported). The essential features of the condition are the same in children, but it may be particularly difficult to make the diagnosis in this age group. In children, delusions and hallucinations may be less elaborated than those observed in adults, and visual hallucinations may be more common. Disorganized speech is observed in a number of disorders with childhood onset (e.g., Communication Disorders, Pervasive Developmental Disorders), as is disorganized behavior (e.g., Attention-Deficit/Hyperactivity Disorder, Stereotypic Movement Disorder). These symptoms should not be attributed to Schizophrenia without due consideration of these more common disorders of childhood. Schizophrenia can also begin later in life (e.g., after age 45 years). Late-onset cases tend to be similar to earlier-onset Schizophrenia, although a number of differences have been observed. For example, the proportion of affected women is greater, and individuals with late onset are more likely to have been married than individuals with an earlier age at onset, but they are nonetheless more socially isolated and impaired when contrasted to the general population. Clinical factors such as the postmenopausal state, human leukocyte antigen subtypes, and cerebrovascular disease are possible risk factors. The clinical presentation is more likely to include persecutory delusions and hallucinations, and less likely to include disorganized and negative symptoms. Often the course is characterized by a predominance of positive symptoms with preservation of affect and social functioning. The course is typically chronic, although individuals may be quite responsive to antipsychotic medications in lower doses. Among those with the oldest age at onset (i.e., over age 60 years), sensory deficits (e.g., auditory and visual loss) occur more commonly than in the general adult population, although their specific role in pathogenesis remains unknown. There is also evidence suggesting that cognitive impairment accompanies the clinical picture. However, the issue of whether identifiable brain pathology defines late-onset illness remains unclear.

Evidence from a large body of literature demonstrates that Schizophrenia is expressed differently in men and women. The modal age at onset for men is between 18 and 25 years, and that for women is between 25 and the mid-30s. The age-at-onset distribution is bimodal for women, with a second peak occurring later in life, but unimodal among men. Approximately 3%-10% of women have an age at onset after 40, whereas late onset is much less common in men. Women also have better premorbid functioning than men. Women with Schizophrenia tend to express more affective
symptomatology, paranoid delusions, and hallucinations, whereas men tend to express more negative symptoms (flat affect, avolition, social withdrawal). Regarding the course of Schizophrenia, women have a better prognosis than men, as defined by number of rehospitalizations and lengths of hospital stay, overall duration of illness, time to relapse, response to neuroleptics, and social and work functioning. However, the gender advantage in these parameters appears to attenuate to some degree with age (i.e., short- to medium-term outcome is better in women, but long-term outcome for women, especially in the postmenopausal period, becomes more like that for men). A slightly higher incidence of Schizophrenia has been observed in men than in women. Further, a number of studies have demonstrated gender differences in the genetic transmission of Schizophrenia. Rates of Schizophrenia among family members of women with Schizophrenia are higher than those among family members of men with Schizophrenia, while relatives of men have a higher incidence of schizotypal and schizoid personality traits than do those of women.

Prevalence

Schizophrenia has been observed worldwide. Prevalences among adults are often reported to be in the range of 0.5% to 1.5%. Annual incidences are most often in the range of 0.5 to 5.0 per 10,000. Incidence estimates beyond this range have been reported for some population groups—for instance, a far higher incidence for second-generation African Caribbeans living in the United Kingdom.

Birth cohort studies suggest some geographic and historical variations in incidence. For example, an elevated risk has been reported among urban-born individuals compared with rural-born individuals, as well as a gradually declining incidence for later-born birth cohorts.

Course

The median age at onset for the first psychotic episode of Schizophrenia is in the early to mid-20s for men and in the late 20s for women. The onset may be abrupt or insidious, but the majority of individuals display some type of prodromal phase manifested by the slow and gradual development of a variety of signs and symptoms (e.g., social withdrawal, loss of interest in school or work, deterioration in hygiene and grooming, unusual behavior, outbursts of anger). Family members may find this behavior difficult to interpret and assume that the person is “going through a phase.” Eventually, however, the appearance of some active-phase symptom marks the disturbance as Schizophrenia. The age at onset may have both pathophysiological and prognostic significance. Individuals with an early age at onset are more often male and have a poorer premorbid adjustment, lower educational achievement, more evidence of structural brain abnormalities, more prominent negative signs and symptoms, more evidence of cognitive impairment as assessed with neuropsychological testing, and a worse outcome. Conversely, individuals with a later onset are more often female, have less evidence of structural brain abnormalities or cognitive impairment, and display a better outcome.

Most studies of course and outcome in Schizophrenia suggest that the course may be variable, with some individuals displaying exacerbations and remissions, whereas
others remain chronically ill. Because of variability in definition and ascertainment, an accurate summary of the long-term outcome of Schizophrenia is not possible. Complete remission (i.e., a return to full premorbid functioning) is probably not common in this disorder. Of those who remain ill, some appear to have a relatively stable course, whereas others show a progressive worsening associated with severe disability. Early in the illness, negative symptoms may be prominent, appearing primarily as prodromal features. Subsequently, positive symptoms appear. Because these positive symptoms are particularly responsive to treatment, they typically diminish, but in many individuals, negative symptoms persist between episodes of positive symptoms. There is some suggestion that negative symptoms may become steadily more prominent in some individuals during the course of the illness. Numerous studies have indicated a group of factors that are associated with a better prognosis. These include good premorbid adjustment, acute onset, later age at onset, absence of anosognosia (poor insight), being female, precipitating events, associated mood disturbance, treatment with antipsychotic medication soon after the onset of the illness, consistent medication compliance (i.e., early and consistent treatment predicts better response to later treatment with antipsychotic medication), brief duration of active-phase symptoms, good interepisode functioning, minimal residual symptoms, absence of structural brain abnormalities, normal neurological functioning, a family history of Mood Disorder, and no family history of Schizophrenia.

Familial Pattern

The first-degree biological relatives of individuals with Schizophrenia have a risk for Schizophrenia that is about 10 times greater than that of the general population. Concordance rates for Schizophrenia are higher in monozygotic twins than in dizygotic twins. Adoption studies have shown that biological relatives of individuals with Schizophrenia have a substantially increased risk for Schizophrenia, whereas adoptive relatives have no increased risk. Although much evidence suggests the importance of genetic factors in the etiology of Schizophrenia, the existence of a substantial discordance rate in monozygotic twins also indicates the importance of environmental factors. Some relatives of individuals with Schizophrenia may also have an increased risk for a group of mental disorders, termed the schizophrenia spectrum. Although the exact boundaries of the spectrum remain unclear, family and adoption studies suggest that it probably includes Schizoaffective Disorder and Schizotypal Personality Disorder. Other psychotic disorders and Paranoid, Schizoid, and Avoidant Personality Disorders may belong to the schizophrenia spectrum as well, but the evidence is more limited.

Differential Diagnosis

A wide variety of general medical conditions can present with psychotic symptoms. Psychotic Disorder Due to a General Medical Condition, a delirium, or a dementia is diagnosed when there is evidence from the history, physical examination, or laboratory tests that indicates that the delusions or hallucinations are the direct physiological consequence of a general medical condition (e.g., Cushing’s syndrome, brain tumor) (see p. 334). Substance-Induced Psychotic Disorder, Substance-Induced De-
lirium, and Substance-Induced Persisting Dementia are distinguished from Schizophrenia by the fact that a substance (e.g., a drug of abuse, a medication, or exposure to a toxin) is judged to be etiologically related to the delusions or hallucinations (see p. 338). Many different types of Substance-Related Disorders may produce symptoms similar to those of Schizophrenia (e.g., sustained amphetamine or cocaine use may produce delusions or hallucinations; phencyclidine use may produce a mixture of positive and negative symptoms). Based on a variety of features that characterize the course of Schizophrenia and Substance-Related Disorders, the clinician must determine whether the psychotic symptoms have been initiated and maintained by the substance use. Ideally, the clinician should attempt to observe the individual during a sustained period (e.g., 4 weeks) of abstinence. However, because such prolonged periods of abstinence are often difficult to achieve, the clinician may need to consider other evidence, such as whether the psychotic symptoms appear to be exacerbated by the substance and to diminish when it has been discontinued, the relative severity of psychotic symptoms in relation to the amount and duration of substance use, and knowledge of the characteristic symptoms produced by a particular substance (e.g., amphetamines typically produce delusions and stereotypies, but not affective blunting or prominent negative symptoms).

Distinguishing Schizophrenia from Mood Disorder With Psychotic Features and Schizoaffective Disorder is made difficult by the fact that mood disturbance is common during the prodromal, active, and residual phases of Schizophrenia. If psychotic symptoms occur exclusively during periods of mood disturbance, the diagnosis is Mood Disorder With Psychotic Features. In Schizoaffective Disorder, there must be a mood episode that is concurrent with the active-phase symptoms of Schizophrenia, mood symptoms must be present for a substantial portion of the total duration of the disturbance, and delusions or hallucinations must be present for at least 2 weeks in the absence of prominent mood symptoms. In contrast, mood symptoms in Schizophrenia either have a duration that is brief in relation to the total duration of the disturbance, occur only during the prodromal or residual phases, or do not meet full criteria for a mood episode. When mood symptoms that meet full criteria for a mood episode are superimposed on Schizophrenia and are of particular clinical significance, an additional diagnosis of Depressive Disorder Not Otherwise Specified or Bipolar Disorder Not Otherwise Specified may be given. Schizophrenia, Catatonic Type, may be difficult to distinguish from a Mood Disorder With Catatonic Features.

By definition, Schizophrenia differs from Schizophreniform Disorder on the basis of duration. Schizophrenia involves the presence of symptoms (including prodromal or residual symptoms) for at least 6 months, whereas the total duration of symptoms in Schizophreniform Disorder must be at least 1 month but less than 6 months. Schizophreniform Disorder also does not require a decline in functioning. Brief Psychotic Disorder is defined by the presence of delusions, hallucinations, disorganized speech, or grossly disorganized or catatonic behavior lasting for at least 1 day but for less than 1 month.

The differential diagnosis between Schizophrenia and Delusional Disorder rests on the nature of the delusions (nonbizarre in Delusional Disorder) and the absence of other characteristic symptoms of Schizophrenia (e.g., hallucinations, disorganized speech or behavior, or prominent negative symptoms). Delusional Disorder may be
particularly difficult to differentiate from the Paranoid Type of Schizophrenia, because this subtype does not include prominent disorganized speech, disorganized behavior, or flat or inappropriate affect and is often associated with less decline in functioning than is characteristic of the other subtypes of Schizophrenia. When poor psychosocial functioning is present in Delusional Disorder, it arises directly from the delusional beliefs themselves.

A diagnosis of Psychotic Disorder Not Otherwise Specified may be made if insufficient information is available to choose between Schizophrenia and other Psychotic Disorders (e.g., Schizoaffective Disorder) or to determine whether the presenting symptoms are substance induced or are the result of a general medical condition. Such uncertainty is particularly likely to occur early in the course of the disorder.

Although Schizophrenia and Pervasive Developmental Disorders (e.g., Autistic Disorder) share disturbances in language, affect, and interpersonal relatedness, they can be distinguished in a number of ways. Pervasive Developmental Disorders are characteristically recognized during infancy or early childhood (usually before age 3 years), whereas such early onset is rare in Schizophrenia. Moreover, in Pervasive Developmental Disorders, there is an absence of prominent delusions and hallucinations; more pronounced abnormalities in affect; and speech that is absent or minimal and characterized by stereotypies and abnormalities in prosody. Schizophrenia may occasionally develop in individuals with a Pervasive Developmental Disorder; a diagnosis of Schizophrenia is warranted in individuals with a preexisting diagnosis of Autistic Disorder or another Pervasive Developmental Disorder only if prominent hallucinations or delusions have been present for at least a month. Childhood-onset Schizophrenia must be distinguished from childhood presentations combining disorganized speech (from a Communication Disorder) and disorganized behavior (from Attention-Deficit/Hyperactivity Disorder).

Schizophrenia shares features (e.g., paranoid ideation, magical thinking, social avoidance, and vague and digressive speech) with and may be preceded by Schizotypal, Schizoid, or Paranoid Personality Disorder. An additional diagnosis of Schizophrenia is appropriate when the symptoms are severe enough to satisfy Criterion A of Schizophrenia. The preexisting Personality Disorder may be noted on Axis II followed by “Premorbid” in parentheses [e.g., Schizotypal Personality Disorder (Premorbid)].
Schizophrenia and Other Psychotic Disorders

Diagnostic criteria for Schizophrenia

A. **Characteristic symptoms:** Two (or more) of the following, each present for a significant portion of time during a 1-month period (or less if successfully treated):

   1. delusions
   2. hallucinations
   3. disorganized speech (e.g., frequent derailment or incoherence)
   4. grossly disorganized or catatonic behavior
   5. negative symptoms, i.e., affective flattening, alogia, or avolition

   **Note:** Only one Criterion A symptom is required if delusions are bizarre or hallucinations consist of a voice keeping up a running commentary on the person's behavior or thoughts, or two or more voices conversing with each other.

B. **Social/occupational dysfunction:** For a significant portion of the time since the onset of the disturbance, one or more major areas of functioning such as work, interpersonal relations, or self-care are markedly below the level achieved prior to the onset (or when the onset is in childhood or adolescence, failure to achieve expected level of interpersonal, academic, or occupational achievement).

C. **Duration:** Continuous signs of the disturbance persist for at least 6 months. This 6-month period must include at least 1 month of symptoms (or less if successfully treated) that meet Criterion A (i.e., active-phase symptoms) and may include periods of prodromal or residual symptoms. During these prodromal or residual periods, the signs of the disturbance may be manifested by only negative symptoms or two or more symptoms listed in Criterion A present in an attenuated form (e.g., odd beliefs, unusual perceptual experiences).

D. **Schizoaffective and Mood Disorder exclusion:** Schizoaffective Disorder and Mood Disorder With Psychotic Features have been ruled out because either (1) no Major Depressive, Manic, or Mixed Episodes have occurred concurrently with the active-phase symptoms; or (2) if mood episodes have occurred during active-phase symptoms, their total duration has been brief relative to the duration of the active and residual periods.

E. **Substance/general medical condition exclusion:** The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

F. **Relationship to a Pervasive Developmental Disorder:** If there is a history of Autistic Disorder or another Pervasive Developmental Disorder, the additional diagnosis of Schizophrenia is made only if prominent delusions or hallucinations are also present for at least a month (or less if successfully treated).

**Classification of longitudinal course** (can be applied only after at least 1 year has elapsed since the initial onset of active-phase symptoms):

- **Episodic With Interepisode Residual Symptoms** (episodes are defined by the reemergence of prominent psychotic symptoms); also specify if: **With Prominent Negative Symptoms**
- **Episodic With No Interepisode Residual Symptoms**
- **Continuous** (prominent psychotic symptoms are present throughout the period of observation); also specify if: **With Prominent Negative Symptoms**
Diagnostic criteria for Schizophrenia (continued)

Single Episode In Partial Remission; also specify if: With Prominent Negative Symptoms
Single Episode In Full Remission
Other or Unspecified Pattern

Schizophrenia Subtypes

The subtypes of Schizophrenia are defined by the predominant symptomatology at the time of evaluation. Although the prognostic and treatment implications of the subtypes are variable, the Paranoid and Disorganized Types tend to be the least and most severe, respectively. The diagnosis of a particular subtype is based on the clinical picture that occasioned the most recent evaluation or admission to clinical care and may therefore change over time. Not infrequently, the presentation may include symptoms that are characteristic of more than one subtype. The choice among subtypes depends on the following algorithm: Catatonic Type is assigned whenever prominent catatonic symptoms are present (regardless of the presence of other symptoms); Disorganized Type is assigned whenever disorganized speech and behavior and flat or inappropriate affect are prominent (unless Catatonic Type is also present); Paranoid Type is assigned whenever there is a preoccupation with delusions or frequent hallucinations are prominent (unless the Catatonic or Disorganized Type is present). Undifferentiated Type is a residual category describing presentations that include prominent active-phase symptoms not meeting criteria for the Catatonic, Disorganized, or Paranoid Type; and Residual Type is for presentations in which there is continuing evidence of the disturbance, but the criteria for the active-phase symptoms are no longer met.

Because of the limited value of the schizophrenia subtypes in clinical and research settings (e.g., prediction of course, treatment response, correlates of illness), alternative subtyping schemes are being actively investigated. The alternative with the most empirical support to date proposes that three dimensions of psychopathology (psychotic, disorganized, and negative) may come together in different ways among individuals with Schizophrenia. This dimensional alternative is described in Appendix B (p. 765).

295.30 Paranoid Type

The essential feature of the Paranoid Type of Schizophrenia is the presence of prominent delusions or auditory hallucinations in the context of a relative preservation of cognitive functioning and affect. Symptoms characteristic of the Disorganized and Catatonic Types (e.g., disorganized speech, flat or inappropriate affect, catatonic or disorganized behavior) are not prominent. Delusions are typically persecutory or grandiose, or both, but delusions with other themes (e.g., jealousy, religiosity, or somatization) may also occur. The delusions may be multiple, but are usually organized around a coherent theme. Hallucinations are also typically related to the content of
the delusional theme. Associated features include anxiety, anger, aloofness, and argumentativeness. The individual may have a superior and patronizing manner and either a stilted, formal quality or extreme intensity in interpersonal interactions. The persecutory themes may predispose the individual to suicidal behavior, and the combination of persecutory and grandiose delusions with anger may predispose the individual to violence. Onset tends to be later in life than the other types of Schizophrenia, and the distinguishing characteristics may be more stable over time. These individuals usually show little or no impairment on neuropsychological or other cognitive testing. Some evidence suggests that the prognosis for the Paranoid Type may be considerably better than for the other types of Schizophrenia, particularly with regard to occupational functioning and capacity for independent living.

### Diagnostic criteria for 295.30 Paranoid Type

A type of Schizophrenia in which the following criteria are met:

A. Preoccupation with one or more delusions or frequent auditory hallucinations.

B. None of the following is prominent: disorganized speech, disorganized or catatonic behavior, or flat or inappropriate affect.

### 295.10 Disorganized Type

The essential features of the Disorganized Type of Schizophrenia are disorganized speech, disorganized behavior, and flat or inappropriate affect. The disorganized speech may be accompanied by silliness and laughter that are not closely related to the content of the speech. The behavioral disorganization (i.e., lack of goal orientation) may lead to severe disruption in the ability to perform activities of daily living (e.g., showering, dressing, or preparing meals). Criteria for the Catatonic Type of Schizophrenia are not met, and delusions or hallucinations, if present, are fragmentary and not organized into a coherent theme. Associated features include grimacing, mannerisms, and other oddities of behavior. Impaired performance may be noted on a variety of neuropsychological and cognitive tests. This subtype is also usually associated with poor premorbid personality, early and insidious onset, and a continuous course without significant remissions. Historically, and in other classification systems, this type is termed hebephrenic.
Diagnostic criteria for 295.10 Disorganized Type

A type of Schizophrenia in which the following criteria are met:

A. All of the following are prominent:
   (1) disorganized speech
   (2) disorganized behavior
   (3) flat or inappropriate affect

B. The criteria are not met for Catatonic Type.

295.20 Catatonic Type

The essential feature of the Catatonic Type of Schizophrenia is a marked psycho-motor disturbance that may involve motoric immobility, excessive motor activity, extreme negativism, mutism, peculiarities of voluntary movement, echolalia, or echopraxia. Motoric immobility may be manifested by catalepsy (waxy flexibility) or stupor. The excessive motor activity is apparently purposeless and is not influenced by external stimuli. There may be extreme negativism that is manifested by the maintenance of a rigid posture against attempts to be moved or resistance to all instructions. Peculiarities of voluntary movement are manifested by the voluntary assumption of inappropriate or bizarre postures or by prominent grimacing. Echolalia is the pathological, parrotlike, and apparently senseless repetition of a word or phrase just spoken by another person. Echopraxia is the repetitive imitation of the movements of another person. Additional features include stereotypies, mannerisms, and automatic obedience or mimicry. During severe catatonic stupor or excitement, the person may need careful supervision to avoid self-harm or harming others. There are potential risks from malnutrition, exhaustion, hyperpyrexia, or self-inflicted injury. To diagnose this subtype, the individual's presentation must first meet the full criteria for Schizophrenia and not be better accounted for by another etiology: substance induced (e.g., Neuroleptic-Induced Parkinsonism, see p. 792), a general medical condition (see p. 185), or a Manic or Major Depressive Episode (see p. 417).