al abnormalities of the central nervous system). If such conditions are present, they should be noted on Axis III. Although terms like “psychosis” and “childhood schizophrenia” were once used to refer to individuals with these conditions, there is considerable evidence to suggest that the Pervasive Developmental Disorders are distinct from Schizophrenia (however, an individual with Pervasive Developmental Disorder may occasionally later develop Schizophrenia).

299.00 Autistic Disorder

Diagnostic Features

The essential features of Autistic Disorder are the presence of markedly abnormal or impaired development in social interaction and communication and a markedly restricted repertoire of activity and interests. Manifestations of the disorder vary greatly depending on the developmental level and chronological age of the individual. Autistic Disorder is sometimes referred to as early infantile autism, childhood autism, or Kanner’s autism.

The impairment in reciprocal social interaction is gross and sustained. There may be marked impairment in the use of multiple nonverbal behaviors (e.g., eye-to-eye gaze, facial expression, body postures and gestures) to regulate social interaction and communication (Criterion A1a). There may be failure to develop peer relationships appropriate to developmental level (Criterion A1b) that may take different forms at different ages. Younger individuals may have little or no interest in establishing friendships. Older individuals may have an interest in friendship but lack understanding of the conventions of social interaction. There may be a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., not showing, bringing, or pointing out objects they find interesting) (Criterion A1c). Lack of social or emotional reciprocity may be present (e.g., not actively participating in simple social play or games, preferring solitary activities, or involving others in activities only as tools or “mechanical” aids) (Criterion A1d). Often an individual’s awareness of others is markedly impaired. Individuals with this disorder may be oblivious to other children (including siblings), may have no concept of the needs of others, or may not notice another person’s distress.

The impairment in communication is also marked and sustained and affects both verbal and nonverbal skills. There may be delay in, or total lack of, the development of spoken language (Criterion A2a). In individuals who do speak, there may be marked impairment in the ability to initiate or sustain a conversation with others (Criterion A2b), or a stereotyped and repetitive use of language or idiosyncratic language (Criterion A2c). There may also be a lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level (Criterion A2d). When speech does develop, the pitch, intonation, rate, rhythm, or stress may be abnormal (e.g., tone of voice may be monotonous or inappropriate to context or may contain questionlike rises at ends of statements). Grammatical structures are often immature and include stereotyped and repetitive use of language (e.g., repetition of words or phrases regardless of meaning; repeating jingles or commercials) or idiosyncratic language (i.e., language that has meaning only to those familiar with the individual’s communication style). Language comprehension is often very delayed, and the individual may have a disturbance in the pragmatic ability to integrate words in speech such as irony or conversely impaired. These may be games or routines of interaction in a mechanical way.

Individuals with Autism spectrum disorders may have a wide range of interests and strategies (e.g., phone numbers, radio stations, TV shows, things in the same manner as a television actor). They may also be obsessive over trivial changes (e.g., change in the environment of utensils at the dinner table, rituals or an unreasonable object (e.g., clapping, finger flicking, or repetitive activities of posture (e.g., the spinning with a toy) or other rapidly revolving object (e.g., a piece of paper).

The disturbance in personal and social interactions (and if the characteristic impairment is present before the age of 3 years). The disturbance is in multiple areas, is pervasive and persisting for at least 1 year, and is not merely a result of another mental disorder (i.e., disintegrative disorder of childhood).

Associated Features

Associated description and signs of developmental disorganization:

There may be abnormalities in the development of the infant’s language and communication skills, such as delayed or unusual speech development. The child may also have difficulty with social interaction, including difficulties in the development of reciprocal social behavior and the use of appropriate social skills. In some cases, there may be delays in the development of motor skills, such as walking or using utensils.

In addition, children with Autism spectrum disorders may have sensory processing issues, such as over- or under-reaction to touch, sound, or light. They may also have difficulty with changes in routine or transition from one activity to another. Some children may have difficulty with repetitive behaviors, such as twisting, twirling, or rocking objects.

Finally, children with Autism spectrum disorders may have difficulty with emotions and social cues, such as facial expressions and body language. They may have difficulty understanding the intentions and feelings of others, which can lead to problems with social development.

Overall, children with Autism spectrum disorders may have a range of challenges that affect their development, social interactions, and daily living.

299.00 Autistic Disorder
Diagnosed in Infancy, Childhood, or Adolescence

When conditions are present, they are called "Autistic Disorder," and "childhood schizophrenia." In these conditions, there is considerable overlap with other Disorders are distinct and Developmental Disorder


disorder. There is a marked abnormality in personal and a marked restriction of interests and activities. The disorder is present before the age of 3.

autism, childhood autism, or

and sustained. There may be repetitive behaviors (e.g., eye-to-eye contact social interaction and develop peer relationships which may take different forms at different times). The interest in establishing friendship but lack understanding of other people (e.g., not understanding) (Criterion A1c). Lack of acting out others; involving others in activities often unindividual's awareness of disorder may be oblivious of the needs of others, or

sustained and affects both self and others. To some extent, there may be difficulty in conversation with others. Language or idiosyncratic language or spontaneous make-believe at the mental level (Criterion A2d). Rhythm, or stress may be inappropriate to context or may be inappropriate to the situation. Automatic structures are often present (e.g., repetition of words or phrases) or idiosyncratic to those familiar with the person. Expression is often very delayed, and the individual may be unable to understand simple questions or directions. A disturbance in the pragmatic (social use) of language is often evidenced by an inability to integrate words with gestures or understand humor or nonliteral aspects of speech such as irony or implied meaning. Imaginative play is often absent or markedly impaired. These individuals also tend not to engage in the simple imitation games or routines of infancy or early childhood or do so only in a mechanical way.

Individuals with Autistic Disorder have restricted, repetitive, and stereotyped patterns of behavior, interests, and activities. There may be an encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus (Criterion A3a); an apparently inflexible adherence to specific, nonfunctional routines or rituals (Criterion A3b); stereotyped and repetitive motor mannerisms (Criterion A3c); or a persistent preoccupation with parts of objects (Criterion A3d). Individuals with Autistic Disorder display a markedly restricted range of interests and are often preoccupied with one narrow interest (e.g., dates, phone numbers, radio station call letters). They may line up an exact number of play things in the same manner over and over again or repetitively mimic the actions of a television actor. They may insist on sameness and show resistance to or distress over trivial changes (e.g., a younger child may have a catastrophic reaction to a minor change in the environment such as rearrangement of the furniture or use of a new set of utensils as dinner). There is often an interest in nonfunctional routines or rituals or an unreasonable insistence on following routines (e.g., taking exactly the same route to school every day). Stereotyped body movements include the hands (clapping, finger flicking) or whole body (rocking, fidgeting, and swaying). Abnormalities of posture (e.g., walking on tiptoe, odd movements and body postures) may be present. These individuals show a persistent preoccupation with parts of objects (buttons, parts of the body). There may also be a fascination with movement (e.g., the spinning wheels of toys, the opening and closing of doors, an electric fan or other rapidly revolving object). The person may be highly attached to some inanimate object (e.g., a piece of string or a rubber band).

The disturbance must be manifest by delays or abnormal functioning in at least one (and often several) of the following areas prior to age 3 years: social interaction, language as used in social communication, or symbolic or imaginative play (Criterion B). In most cases, there is no period of unequivocally normal development, although in perhaps 20% of cases parents report relatively normal development for 1 or 2 years. In such cases, parents may report that the child acquired a few words and lost these or seemed to stagnate developmentally.

By definition, if there is a period of normal development, it cannot extend past age 3 years. The disturbance must not be better accounted for by Rett's Disorder or Childhood Disintegrative Disorder (Criterion C).

Associated Features and Disorders

Associated descriptive features and mental disorders. In most cases, there is an associated diagnosis of Mental Retardation, which can range from mild to profound. There may be abnormalities in the development of cognitive skills. The profile of cog-
nitive skills is usually uneven, regardless of the general level of intelligence, with verbal skills typically weaker than nonverbal skills. Sometimes special skills are present (e.g., a 4½-year-old girl with Autistic Disorder may be able to “decode” written materials with minimal understanding of meaning, as in hyperlexia, or a 10-year-old boy may have prodigious abilities to calculate dates [calendar calculations]). Estimates of single-word (receptive or expressive) vocabulary are not always good estimates of language level (i.e., actual language skills may be at much lower levels).

Individuals with Autistic Disorder may have a range of behavioral symptoms, including hyperactivity, short attention span, impulsivity, aggressiveness, self-injurious behaviors, and, particularly in young children, temper tantrums. There may be odd responses to sensory stimuli (e.g., a high threshold for pain, oversensitivity to sounds or being touched, exaggerated reactions to light or odors, fascination with certain stimuli). There may be abnormalities in eating (e.g., limiting diet to a few foods, Pica) or sleeping (e.g., recurrent awakening at night with rocking). Abnormalities of mood or affect (e.g., giggling or weeping for no apparent reason, an apparent absence of emotional reaction) may be present. There may be a lack of fear in response to real dangers, and excessive fearfulness in response to harmless objects. A variety of self-injurious behaviors may be present (e.g., head banging or finger, hand, or wrist biting). In adolescence or early adult life, individuals with Autistic Disorder who have the intellectual capacity for insight may become depressed in response to the realization of their serious impairment.

Associated laboratory findings. When Autistic Disorder is associated with a general medical condition, laboratory findings consistent with that condition will be observed. There are group differences in some measures of serotonergic activity, but these are not diagnostic for Autistic Disorder. Imaging studies may be abnormal in some cases, but no specific pattern has been clearly identified. EEG abnormalities are common even in the absence of seizure disorders.

Associated physical examination findings and general medical conditions. Various nonspecific neurological symptoms or signs may be noted (e.g., primitive reflexes, delayed development of hand dominance) in Autistic Disorder. The condition is sometimes observed in association with a neurological or other general medical condition (e.g., fragile X syndrome and tuberous sclerosis).

Seizures may develop (particularly in adolescence) in as many as 25% of cases. Both microcephaly and macrocephaly are observed. When other general medical conditions are present, they should be noted on Axis III.

Specific Age and Gender Features

The nature of the impairment in social interaction may change over time in Autistic Disorder and may vary depending on the developmental level of the individual. In infants, there may be a failure to cuddle; an indifference or aversion to affection or physical contact; a lack of eye contact, facial responsiveness, or socially directed smiles; and a failure to respond to their parents’ voices. As a result, parents may be concerned initially that the child is deaf. Young children with this disorder may treat adults as interchangeable, not seeming to notice which arm or parent’s hand to use to grasp objects. As the child grows older, the child may become more withdrawn and avoid eye contact, and even become more interested in parts of objects. The child tends to treat other people as objects, answer ritualized questions in a rote manner, and being inappropriate to the context of the question. The information tends to be fragmented and may sometimes be inappropriate to the situation.

Prevalence

The median rate of Autistic Disorder in boys is approximately 7.2 per 1,000 individuals, with reported rates ranging from 1 to 10 per 1,000. It remains unclear whether the prevalence has increased over time or whether an increased frequency of diagnosis has occurred.

Course

By definition, the onset of Autistic Disorder is during the first 3 years of life. Parents will report that they have noticed it early on in their child’s development, and afterward because of the child’s continued difficulty in social interaction. The disorder in infancy are usually first noticed by 12 months of age, but most children are not diagnosed until 2 years. In a minority of cases, the disorder may be diagnosed (or even recognized for the first time) in adolescence or adulthood, sometimes in response to social isolation or increased social demands. In school-age children, the disorder is commonly observed in the context of normal development, with some degree of partial independence in daily living skills. Some individuals deteriorate as they age. Some individuals deteriorate as they age. Some individuals show improvement. Language skills (e.g., expressive language and intellectual level) are the strongest predictors of outcome. Some studies suggest that individuals with Autistic Disorder, when diagnosed early, tend to do better than those diagnosed later in life, and that early intervention is important for successful outcomes.

Familial Pattern

There is an increased risk of Autistic Disorder among family members, with approximately 5% of first-degree relatives of affected individuals having the disorder. The risk appears to be higher for those with a family history of the disorder. The disorder appears to be more common in boys than girls, with a male-to-female ratio of about 4:1.
First Diagnosed in Infancy, Childhood, or Adolescence

A level of intelligence, with ver- times special skills are present can be able to "decode" written of what is read [hyperlexia] or manipulate dates [calendar calcu- lative] vocabulary are not always these skills may be at much lower levels of behavioral symptoms, in- fluence, aggressiveness, self-injurious behavior, or tantrums. There may be odd behaviors, oversensitivity to sounds and odors, fascination with certain rituals (eating diet to a few foods, Pica) or self-stimulation. Abnormalities of mood and motor behavior, an apparent absence of guilt, and a lack of fear in response to real or imagined dangers. A variety of self- destructive or finger, hand, or wrist biting is seen. Children with Autistic Disorder who have been reported to have self- harmed in response to the realiza- tion of their own negative behavior are rare.

Autistic Disorder is associated with a genotypic disorder, with the general medical conditions that are associated with some measures of serotonergic abnormality. Imaging studies may be useful in identifying and differentiating the disorder. Etiology is clearly identified. EEG abnormalities are associated with the disorder.

General medical conditions. Neurological conditions may be noted (e.g., primitive reflexes, myoclonus, or other general medical conditions). Mental retardation is present in as many as 25% of cases. Available research suggests that other general medical conditions may also be associated with the disorder.

Course and Prognosis

The course of Autistic Disorder changes over time in Autistic children. The severity of the initial presentation of the disorder, as well as the impact of the disorder on the individual's life, may vary. In some cases, the disorder may improve over time, while in others, it may persist throughout life. As a result, parents may be concerned about how to care for their child with this disorder may treat Adult adults as interchangeable, may cling mechanically to a specific person, or may use the parent's hand to obtain desired objects without ever making eye contact (as if it were the hand rather than the person that is relevant). Over the course of development, the child may become more willing to be passively engaged in social interaction and may even become more interested in social interaction. However, even in such instances, the child may tend to treat other people in unusual ways (e.g., expecting other people to answer ritualized questions in specific ways, having little sense of other people's boundaries, and being inappropriately intrusive in social interaction). In older individuals, tasks involving long-term memory (e.g., train timetables, historical dates, chemical formulas, or recall of the exact words of songs heard years before) may be excellent, but the information tends to be repeated over and over again, regardless of the appropriateness of the information to the social context. Rates of the disorder are four to five times higher in males than in females. Females with the disorder are more likely, however, to exhibit more severe Mental Retardation.

Prevalence

The median rate of Autistic Disorder in epidemiological studies is 5 cases per 10,000 individuals, with reported rates ranging from 2 to 20 cases per 10,000 individuals. It remains unclear whether the higher reported rates reflect differences in methodology or an increased frequency of the condition.

Course

By definition, the onset of Autistic Disorder is prior to age 3 years. In some instances, parents will report that they have been worried about the child since birth or shortly afterward because of the child's lack of interest in social interaction. Manifestations of the disorder in infancy are more subtle and difficult to define than those seen after age 2 years. In a minority of cases, the child may be reported to have developed normally for the first year (or even 2 years) of life. Autistic Disorder follows a continuous course. In school-age children and adolescents, developmental gains in some areas are common (e.g., increased interest in social functioning as the child reaches school age). Some individuals deteriorate behaviorally during adolescence, whereas others improve. Language skills (e.g., presence of communicative speech) and overall intellectual level are the strongest factors related to ultimate prognosis. Available follow-up studies suggest that only a small percentage of individuals with the disorder go on as adults to live and work independently. In about one-third of cases, some degree of partial independence is possible. The highest functioning adults with Autistic Disorder typically continue to exhibit problems in social interaction and communication along with markedly restricted interests and activities.

Familial Pattern

There is an increased risk of Autistic Disorder among siblings of individuals with the disorder, with approximately 5% of siblings also exhibiting the condition. There also appears to be risk for various developmental difficulties in affected siblings.
Differential Diagnosis

Periods of developmental regression may be observed in normal development, but these are neither as severe or as prolonged as in Autistic Disorder. Autistic Disorder must be differentiated from other Pervasive Developmental Disorders. Rett's Disorder differs from Autistic Disorder in its characteristic sex ratio and pattern of deficits. Rett's Disorder has been diagnosed only in females, whereas Autistic Disorder occurs much more frequently in males. In Rett's Disorder, there is a characteristic pattern of head growth deceleration, loss of previously acquired purposeful hand skills, and the appearance of poorly coordinated gait or trunk movements. Particularly during the preschool years, individuals with Rett's Disorder may exhibit difficulties in social interaction similar to those observed in Autistic Disorder, but these tend to be transient. Autistic Disorder differs from Childhood Disintegrative Disorder, which has a distinctive pattern of severe developmental regression in multiple areas of functioning following at least 2 years of normal development. In Autistic Disorder, developmental abnormalities are usually noted within the first year of life. When information on early development is unavailable or when it is not possible to document the required period of normal development, the diagnosis of Autistic Disorder should be made. Asperger's Disorder can be distinguished from Autistic Disorder by the lack of delay or deviance in early language development. Asperger's Disorder is not diagnosed if criteria are met for Autistic Disorder.

Schizophrenia with childhood onset usually develops after years of normal, or near normal, development. An additional diagnosis of Schizophrenia can be made if an individual with Autistic Disorder develops the characteristic features of Schizophrenia (see p. 298) with active-phase symptoms of prominent delusions or hallucinations that last for at least 1 month. In Selective Mutism, the child usually exhibits appropriate communication skills in certain contexts and does not have the severe impairment in social interaction and the restricted patterns of behavior associated with Autistic Disorder. In Expressive Language Disorder and Mixed Receptive-Expressive Language Disorder, there is a language impairment, but it is not associated with the presence of a qualitative impairment in social interaction and restricted, repetitive, and stereotyped patterns of behavior. It is sometimes difficult to determine whether an additional diagnosis of Autistic Disorder is warranted in an individual with Mental Retardation, especially if the Mental Retardation is Severe or Profound. An additional diagnosis of Autistic Disorder is reserved for those situations in which there are qualitative deficits in social and communicative skills and the specific behaviors characteristic of Autistic Disorder are present. Motor stereotypes are characteristic of Autistic Disorder; an additional diagnosis of Stereotypic Movement Disorder is not given when these are better accounted for as part of the presentation of Autistic Disorder. Symptoms of overactivity and inattention are frequent in Autistic Disorder, but a diagnosis of Attention-Deficit/Hyperactivity Disorder is not made if Autistic Disorder is present.
first Diagnosed in Infancy, Childhood, or Adolescence

early normal development, but then regression occurs. Autistic Disorder differs from Rett’s Disorder in the ratio and pattern of development milestones. In Rett’s Disorder, there is a characteristic pattern of motor deterioration following purposeful hand skills, with loss of gross and fine motor movements. Particularly during the second year of life, girls may exhibit difficulties in physical coordination. In Autistic Disorder, early regression occurs within the first year of life. When intelligence is preserved, it is not possible to document regression. The clinical presentation of Autistic Disorder is not the same as that of Rett’s Disorder from Autistic Disorder by neurodevelopmental status. Asperger’s Disorder is not an exclusion criterion.

At present, the diagnosis of Autistic Disorder is made if the child does not have the characteristic features of Schizophrenia, including delusions or hallucinations, and does not have fragile X syndrome. Also, the child usually exhibits at least some level of functioning. In addition to the severe impairment of social interaction and restricted repetitive and stereotyped patterns of behavior, it is not associated with any significant impairments in intellectual functioning or language development. The child is not developmentally delayed. However, it is not always clear whether or not the child is developmentally delayed. Some children with autism also have other developmental delays. These delays can affect the child’s ability to communicate, understand language, and engage in social interactions. The diagnostic criteria for 299.00 Autistic Disorder include the following:

(1) qualitative impairment in social interaction, as manifested by at least two of the following:
   a. marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction
   b. failure to develop peer relationships appropriate to developmental level
   c. a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by a lack of showing, bringing, or pointing out objects of interest)
   d. lack of social or emotional reciprocity

(2) qualitative impairments in communication as manifested by at least one of the following:
   a. delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)
   b. in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others
   c. stereotyped and repetitive use of language or idiosyncratic language
   d. lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level

(3) restricted repetitive and stereotyped patterns of behavior, interests, and activities, as manifested by at least one of the following:
   a. encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
   b. apparently inflexible adherence to specific, nonfunctional routines or rituals
   c. stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements)
   d. persistent preoccupation with parts of objects

B. Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3 years: (1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play.

C. The disturbance is not better accounted for by Rett’s Disorder or Childhood Disintegrative Disorder.
Asperger’s Disorder

Diagnostic Features

The essential features of Asperger’s Disorder are severe and sustained impairment in social interaction (Criterion A) and the development of restricted, repetitive patterns of behavior, interests, and activities (Criterion B). The disturbance must cause clinically significant impairment in social, occupational, or other important areas of functioning (Criterion C). In contrast to Autistic Disorder, there are no clinically significant delays or deviance in language acquisition (e.g., single non-echoed words are used communicatively by age 2 years, and spontaneous communicative phrases are used by age 3 years) (Criterion D), although more subtle aspects of social communication (e.g., typical give-and-take in conversation) may be affected. In addition, during the first 3 years of life, there are no clinically significant delays in cognitive development as manifested by expressing normal curiosity about the environment or in the acquisition of age-appropriate learning skills and adaptive behaviors (other than in social interaction) (Criterion E). Finally, the criteria are not met for another specific Pervasive Developmental Disorder or for Schizophrenia (Criterion F). This condition is also termed Asperger’s syndrome.

The impairment in reciprocal social interaction is gross and sustained. There may be marked impairment in the use of multiple nonverbal behaviors (e.g., eye-to-eye gaze, facial expression, body postures and gestures) to regulate social interaction and communication (Criterion A1). There may be failure to develop peer relationships appropriate to developmental level (Criterion A2) that may take different forms at different ages. Younger individuals may have little or no interest in establishing friendships. Older individuals may have an interest in friendship but lack understanding of the conventions of social interaction. There may be a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., not showing, bringing, or pointing out objects they find interesting) (Criterion A3). Lack of social or emotional reciprocity may be present (e.g., not actively participating in simple social play or games, preferring solitary activities, or involving others in activities only as tools or “mechanical” aids) (Criterion A4). Although the social deficit in Asperger’s Disorder is severe and is defined in the same way as in Autistic Disorder, the lack of social reciprocity is more typically manifest by an eccentric and one-sided social approach to others (e.g., pursuing a conversational topic regardless of others’ reactions) rather than social and emotional indifference.

As in Autistic Disorder, restricted, repetitive patterns of behavior, interests, and activities are present (Criterion B). Often these are primarily manifest in the development of encompassing preoccupations about a circumscribed topic or interest, about which the individual can amass a great deal of facts and information (Criterion B1). These interests and activities are pursued with great intensity often to the exclusion of other activities.

The disturbance must cause clinically significant impairment in social adaptation, which in turn may have a significant impact on self-sufficiency or on occupational or other important areas of functioning (Criterion C). The social deficits and restricted patterns of interests, activities, and behavior are the source of considerable disability.

Associated Features

In contrast to Autism Spectrum Disorder, individuals with Asperger’s Disorder, and to a lesser extent those with High Functioning Autism, usually maintain conventional social behaviors and greater ability to process and maintain attention to social and task-related information than to non-social information. They exhibit a pattern of variability in functioning across situations and over time, with relatively high levels of functioning in some areas and relatively low levels in others. Variability of cognitive abilities, including areas of verbal ability (e.g., reading) and non-verbal areas (e.g., visual-spatial), and social and interpersonal awkwardness may be seen. Academic difficulties may contribute to a general lag in school performance. This lag may be more or less pronounced depending on the educational setting and on the child’s abilities to compensate. The child with Asperger’s Disorder may struggle to cope with the repetitive routines, complexities, and ambiguities of the educational environment. The child may become depressed or anxious as a result of academic or social difficulties.

Specific Age and Gender Differences

The clinical picture may vary across the lifespan. Early childhood is marked by considerable variability in social and communicative skills. Many children appear to be at risk for language delay and may also have a number of other mental and physical traits. Some children are more severely impaired in their social and communicative skills, while others appear to be relatively spared in these areas. As children progress through school, they may experience increased demands on their social and communicative skills, leading to greater challenges in navigating social situations. Many children with Asperger’s Disorder may experience delays in the development of social and communicative skills, which may lead to difficulties in forming and maintaining friendships.
Asperger’s Disorder

In contrast to Autistic Disorder, there are no clinically significant delays in early language (e.g., single words are used by age 2, communicative phrases are used by age 3) (Criterion D). Subsequent language may be unusual in terms of the individual’s preoccupation with certain topics and his or her verbosity. Difficulties in communication may result from social dysfunction and the failure to appreciate and utilize conventional rules of conversation, failure to appreciate nonverbal cues, and limited capacities for self-monitoring.

Individuals with Asperger’s Disorder do not have clinically significant delays in cognitive development or in age-appropriate self-help skills, adaptive behavior (other than in social interaction), and curiosity about the environment in childhood (Criterion E). Because early language and cognitive skills are within normal limits in the first 3 years of life, parents or caregivers are usually concerned about the child’s development during that time, although upon detailed interviewing they may recall unusual behaviors. The child may be described as talking before walking, and indeed parents may believe the child to be precocious (e.g., with a rich or “adult” vocabulary). Although subtle social problems may exist, parents or caregivers often are not concerned until the child begins to attend a preschool or is exposed to same-age children; at this point the child’s social difficulties with same-age peers may become apparent.

By definition the diagnosis is not given if any other specific Pervasive Developmental Disorder or for Schizophrenia (although the diagnoses of Asperger’s Disorder and Schizophrenia may coexist if the onset of the Asperger’s Disorder clearly preceded the onset of Schizophrenia) (Criterion F).

Associated Features and Disorders

In contrast to Autistic Disorder, Mental Retardation is not usually observed in Asperger’s Disorder, although occasional cases in which Mild Mental Retardation is present have been noted (e.g., when the Mental Retardation becomes apparent only in the school years, with no apparent cognitive or language delay in the first years of life). Variability of cognitive functioning may be observed, often with strengths in areas of verbal ability (e.g., vocabulary, rote auditory memory) and weaknesses in nonverbal areas (e.g., visual-motor and visual-spatial skills). Motor clumsiness and awkwardness may be present but usually are relatively mild, although motor difficulties may contribute to peer rejection and social isolation (e.g., inability to participate in group sports). Symptoms of overactivity and inattention are frequent in Asperger’s Disorder, and indeed many individuals with this condition receive a diagnosis of Attention-Deficit/Hyperactivity Disorder prior to the diagnosis of Asperger’s Disorder. Asperger’s Disorder has been reported to be associated with a number of other mental disorders, including Depressive Disorders.

Specific Age and Gender Features

The clinical picture may present differently at different ages. Often the social disability of individuals with the disorder becomes more striking over time. By adolescence some individuals with the disorder may learn to use areas of strength (e.g., rote verbal abilities) to compensate for areas of weakness. Individuals with Asperger’s Dis-
order may experience victimization by others; this, and feelings of social isolation and an increasing capacity for self-awareness, may contribute to the development of depression and anxiety in adolescence and young adulthood. The disorder is diagnosed much more frequently (at least five times) in males than in females.

Prevalence

Definitive data regarding the prevalence of Asperger’s Disorder are lacking.

Course

Asperger’s Disorder is a continuous and lifelong disorder. In school-age children, good verbal abilities may, to some extent, mask the severity of the child’s social dysfunction and may also mislead caregivers and teachers—that is, caregivers and teachers may focus on the child’s good verbal skills but be insufficiently aware of problems in other areas (particularly social adjustment). The child’s relatively good verbal skills may also lead teachers and caregivers to erroneously attribute behavioral difficulties to willfulness or stubbornness in the child. Interest in forming social relationships may increase in adolescence as the individuals learn some ways of responding more adaptively to their difficulties—for example, the individual may learn to apply explicit verbal rules or routines in certain stressful situations. Older individuals may have an interest in friendship but lack understanding of the conventions of social interaction and may more likely make relationships with individuals much older or younger than themselves. The prognosis appears significantly better than in Autistic Disorder, as follow-up studies suggest that, as adults, many individuals are capable of gainful employment and personal self-sufficiency.

Familial Pattern

Although the available data are limited, there appears to be an increased frequency of Asperger’s Disorder among family members of individuals who have the disorder. There may also be an increased risk for Autistic Disorder as well as more general social difficulties.

Differential Diagnosis

Asperger’s Disorder must be distinguished from the other Pervasive Developmental Disorders, all of which are characterized by problems in social interaction. It differs from Autistic Disorder in several ways. In Autistic Disorder there are, by definition, significant abnormalities in the areas of social interaction, language, and play, whereas in Asperger’s Disorder early cognitive and language skills are not delayed significantly. Furthermore, in Autistic Disorder, restricted, repetitive, and stereotyped interests and activities are often characterized by the presence of motor mannerisms, preoccupation with parts of objects, rituals, and marked distress in change, whereas in Asperger’s Disorder these are primarily observed in the all-encompassing pursuit of a circumscribed interest involving a topic to which the individual devotes inordinate amounts of time amassing information and facts. Differentiation of the two condi-

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ditions can be problematic, especially in those with interaction patterns different from normal, whereas in Asperger’s Disorder these are typically diminished, although not absent. In Rett’s Disorder, the previously acquired skills of gait or trunk movement are lost.

Asperger’s Disorder is often associated with a distinctive pattern of speech and language development. Children with high degrees of Mental Retardation in Asperger’s Disorder there is not necessarily a significant cognitive or language impairment.

Schizophrenia or other psychotic disorders, delusions, hallucinations, delusions, and paranoia are uncommon. A child usually exhibits their unique behaviors and mannerisms, and does not have the severe hyperactivity and impulsivity associated with Attention Deficit Hyperactivity Disorder. Children with Asperger’s Disorder are typically of normal intelligence, and do not have the severe behavior problems, de-velopmental delays, and atypical behaviors associated with other Pervasive Developmental Disorders.

Compulsive Disorder

Asperger’s Disorder is characterized by an apparent pleasure derived from repetitive and restricted activities. The source of anxiety and often social withdrawal is associated with these activities and is not seen in individuals with Asperger’s Disorder.

The relationship between Asperger’s Disorder and other Anxiety Disorders, Social Phobia, and other mental disorders is unclear. In general, individuals with Asperger’s Disorder may experience heightened sensitivity to change or other Anxiety Disorders. Compulsive behaviors, impulsivity, and mood disorders in individuals with Asperger’s Disorder. In contrast, social phobia, anxiety, and mood disorders are not common in individuals with Asperger’s Disorder. In summary, Asperger’s Disorder is a distinct and unique disorder, characterized by a unique pattern of social interaction, communication, and behavior.
First Diagnosed in Infancy, Childhood, or Adolescence

Asperger's Disorder is characterized by significant impairments of social isolation and interaction skills. Unlike Autism Disorder, the symptoms may not lead to the development of delusions or hallucinations. The disorder is diagnosed more frequently in males than in females.

Social Interaction

Asperger’s Disorder differs from Autism Disorder in its characteristic sex ratio and pattern of deficits. Both disorders can present with impaired social interaction patterns, but distinctions can be problematic in some cases. In Autistic Disorder, typical social interaction patterns are marked by self-isolation or markedly rigid social approaches, whereas in Asperger’s Disorder there may appear to be motivation for approaching others even though this is then done in a highly eccentric, one-sided, verbose, and insensitive manner.

Asperger’s Disorder must also be differentiated from Pervasive Developmental Disorders other than Autism Disorder. Rett’s Disorder differs from Asperger’s Disorder in its characteristic sex ratio and pattern of deficits. Rett’s Disorder has been diagnosed only in females, whereas Asperger’s Disorder occurs much more frequently in males. In Rett’s Disorder, there is a characteristic pattern of head growth deceleration, loss of previously acquired purposeful hand skills, and the appearance of poorly coordinated gait or trunk movements. Rett’s Disorder is also associated with marked degrees of Mental Retardation and gross impairments in language and communication.

Asperger’s Disorder differs from Childhood Disintegrative Disorder, which has a distinctive pattern of developmental regression following at least 2 years of normal development. Children with Childhood Disintegrative Disorder also display marked degrees of Mental Retardation and language impairment. In contrast, in Asperger’s Disorder there is no pattern of developmental regression and, by definition, no significant cognitive or language delays.

Schizophrenia of childhood onset usually develops after years of normal, or near normal, development, and characteristic features of the disorder, including hallucinations, delusions, and disorganized speech, are present. In Selective Mutism, the child usually exhibits appropriate communication skills in certain contexts and does not have the severe impairment in social interaction and the restricted patterns of behavior associated with Asperger’s Disorder. Conversely, individuals with Asperger’s Disorder are typically verbose. In Expressive Language Disorder and Mixed Receptive-Expressive Language Disorder, there is language impairment but no associated qualitative impairment in social interaction and restricted, repetitive, and stereotyped patterns of behavior. Some individuals with Asperger’s Disorder may exhibit behavioral patterns suggesting Obsessive-Compulsive Disorder, although special clinical attention should be given to the differentiation between preoccupations and activities in Asperger’s Disorder and obsessions and compulsions in Obsessive-Compulsive Disorder. In Asperger’s Disorder these interests are the source of some apparent pleasure or comfort, whereas in Obsessive-Compulsive Disorder they are the source of anxiety. Furthermore, Obsessive-Compulsive Disorder is typically not associated with the level of impairment in social interaction and social communication seen in Asperger’s Disorder.

The relationship between Asperger’s Disorder and Schizoid Personality Disorder is unclear. In general, the social difficulties in Asperger’s Disorder are more severe and of earlier onset. Although some individuals with Asperger’s Disorder may experience heightened and debilitating anxiety in social settings as in Social Phobia or other Anxiety Disorders, the latter conditions are not characterized by pervasive impairments in social development or by the circumscribed interests typical of Asperger’s Disorder. Asperger’s Disorder must be distinguished from normal social awkwardness and normal age-appropriate interests and hobbies. In Asperger’s Disorder, the social deficits are quite severe and the preoccupations are all-encompassing and interfere with the acquisition of basic skills.
Diagnostic criteria for 299.80 Asperger’s Disorder

A. Qualitative impairment in social interaction, as manifested by at least two of the following:

1. marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction
2. failure to develop peer relationships appropriate to developmental level
3. a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by a lack of showing, bringing, or pointing out objects of interest to other people)
4. lack of social or emotional reciprocity

B. Restricted repetitive and stereotyped patterns of behavior, interests, and activities, as manifested by at least one of the following:

1. encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
2. apparently inflexible adherence to specific, nonfunctional routines or rituals
3. stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements)
4. persistent preoccupation with parts of objects

C. The disturbance causes clinically significant impairment in social, occupational, or other important areas of functioning.

D. There is no clinically significant general delay in language (e.g., single words used by age 2 years, communicative phrases used by age 3 years).

E. There is no clinically significant delay in cognitive development or in the development of age-appropriate self-help skills, adaptive behavior (other than in social interaction), and curiosity about the environment in childhood.

F. Criteria are not met for another specific Pervasive Developmental Disorder or Schizophrenia.

299.80 Pervasive Developmental Disorder Not Otherwise Specified (Including Atypical Autism)

This category should be used when there is a severe and pervasive impairment in the development of reciprocal social interaction associated with impairment in either verbal or nonverbal communication skills or with the presence of stereotyped behavior, interests, and activities, but the criteria are not met for a specific Pervasive Developmental Disorder, Schizophrenia, Schizotypal Personality Disorder, or Avoidant Personality Disorder. For example, this category includes “atypical autism”—presentations that do not meet the criteria for Autistic Disorder because of late age at onset, atypical symptomatology, or subthreshold symptomatology, or all of these.
Attention-Deficit and Disruptive Behavior Disorders

Attention-Deficit/Hyperactivity Disorder

Diagnostic Features

The essential feature of Attention-Deficit/Hyperactivity Disorder is a persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequently displayed and more severe than is typically observed in individuals at a comparable level of development (Criterion A). Some hyperactive-impulsive or inattentive symptoms that cause impairment must have been present before age 7 years, although many individuals are diagnosed after the symptoms have been present for a number of years, especially in the case of individuals with the Predominantly Inattentive Type (Criterion B). Some impairment from the symptoms must be present in at least two settings (e.g., at home and at school or work) (Criterion C). There must be clear evidence of interference with developmentally appropriate social, academic, or occupational functioning (Criterion D). The disturbance does not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder and is not better accounted for by another mental disorder (e.g., a Mood Disorder, Anxiety Disorder, Dissociative Disorder, or Personality Disorder) (Criterion E).

Inattention may be manifest in academic, occupational, or social situations. Individuals with this disorder may fail to give close attention to details or may make careless mistakes in schoolwork or other tasks (Criterion A1a). Work is often messy and performed carelessly and without considered thought. Individuals often have difficulty sustaining attention in tasks or play activities and often find it hard to persist with tasks until completion (Criterion A1b). They often appear as if their mind is elsewhere or as if they are not listening or did not hear what has just been said (Criterion A1c). There may be frequent shifts from one uncompleted activity to another. Individuals diagnosed with this disorder may begin a task, move on to another, then turn to yet something else, prior to completing any one task. They often do not follow through on requests or instructions and fail to complete schoolwork, chores, or other duties (Criterion A1d). Failure to complete tasks should be considered in making this diagnosis only if it is due to inattention as opposed to other possible reasons (e.g., failure to understand instructions, defiance). These individuals often have difficulties organizing tasks and activities (Criterion A1e). Tasks that require sustained mental effort are experienced as unpleasant and markedly aversive. As a result, these individuals typically avoid or have a strong dislike for activities that demand sustained self-application and mental effort or that require organizational demands or close concentration (e.g., homework or paperwork) (Criterion A1f). This avoidance must be due to the person’s difficulties with attention and not due to a primary oppositional attitude, although secondary oppositionalism may also occur. Work habits are often disorganized and the materials necessary for doing the task are often scattered, lost, or carelessly handled and damaged (Criterion A1g).

Individuals with this disor-
behavior, is under close supervision for less interesting activities, or is substantially impaired in school or work environments. The symptoms are more likely to be reported by parents or teachers using multiple sources (e.g., parents, children, teachers) in a variety of situations within the child’s environment.

**Subtypes**

Although many individuals show a pattern of inattention and overactivity-impulsivity, the subtype is not always prominent. The appropriate type is based on the predominant behavior of the child.

314.00 Attention-Deficit/Hyperactivity Disorder

**Type.** This subtype usually occurs in combination with the Predominantly Inattentive Type and Predominantly Impulsive-Hyperactive Type. This subtype has been assigned when a child has persisted for at least 6 months. It is not used in such cases, where one of the other subtypes.

314.01 Attention-Deficit/Hyperactivity Disorder

**Type.** This subtype is usually assigned when a child has been present in at least two settings (Criterion C). It is very unusual for an individual to display the same level of dysfunction in all settings or within the same setting at all times. Symptoms typically worsen in situations that require sustained attention or mental effort or that lack intrinsic appeal or novelty (e.g., listening to classroom teachers, doing class assignments, listening to or reading lengthy materials, or working on monotonous, repetitive tasks). Signs of the disorder may be minimal or absent when the person is receiving frequent rewards for appropriate

**Recording Procedures**

Individuals who at an early age show signs consistent with the Predominantly Inattentive Type or the Predominantly Hyperactive-Impulsive Type, or the Combined Type and vice versa, can be assigned the type indicated on the basis of the more clinically significant symptoms. For such cases, the appropriate subtype is Predominantly Inattentive Type, Predominantly Hyperactive-Impulsive Type, or Combined Type. When necessary, symptoms for the disorder and it has been met, Attention-Deficit/Hyperactivity Disorder be diagnosed.

**Associated Features**

**Associated descriptive features** are frequently reported, depending on age and the context (e.g., attention, temper outbursts, mood swings, peer relations, academic difficulties, and overactivity).
behavior, is under close supervision, is in a novel setting, is engaged in especially interesting activities, or is in a one-to-one situation (e.g., the clinician’s office). The symptoms are more likely to occur in group situations (e.g., in playgroups, classrooms, or work environments). The clinician should therefore gather information from multiple sources (e.g., parents, teachers) and inquire about the individual’s behavior in a variety of situations within each setting (e.g., doing homework, having meals).

**Subtypes**

Although many individuals present with symptoms of both inattention and hyperactivity-impulsivity, there are individuals in whom one or the other pattern is predominant. The appropriate subtype (for a current diagnosis) should be indicated based on the predominant symptom pattern for the past 6 months.

**314.01 Attention-Deficit/Hyperactivity Disorder, Combined Type.** This subtype should be used if six (or more) symptoms of inattention and six (or more) symptoms of hyperactivity-impulsivity have persisted for at least 6 months. Most children and adolescents with the disorder have the Combined Type. It is not known whether the same is true of adults with the disorder.

**314.00 Attention-Deficit/Hyperactivity Disorder, Predominantly Inattentive Type.** This subtype should be used if six (or more) symptoms of inattention (but fewer than six symptoms of hyperactivity-impulsivity) have persisted for at least 6 months. Hyperactivity may still be a significant clinical feature in many such cases, whereas other cases are more purely inattentive.

**314.01 Attention-Deficit/Hyperactivity Disorder, Predominantly Hyperactive-Impulsive Type.** This subtype should be used if six (or more) symptoms of hyperactivity-impulsivity (but fewer than six symptoms of inattention) have persisted for at least 6 months. Inattention may often still be a significant clinical feature in such cases.

**Recording Procedures**

Individuals who at an earlier stage of the disorder had the Predominantly Inattentive Type or the Predominantly Hyperactive-Impulsive Type may go on to develop the Combined Type and vice versa. The appropriate subtype (for a current diagnosis) should be indicated on the basis of the predominant symptom pattern for the past 6 months. If clinically significant symptoms remain but criteria are no longer met for any of the subtypes, the appropriate diagnosis is Attention-Deficit/Hyperactivity Disorder, In Partial Remission. When an individual’s symptoms do not currently meet full criteria for the disorder and it is unclear whether criteria for the disorder have previously been met, Attention-Deficit/Hyperactivity Disorder Not Otherwise Specified should be diagnosed.

**Associated Features and Disorders**

**Associated descriptive features and mental disorders.** Associated features vary depending on age and developmental stage and may include low frustration tolerance, temper outbursts, bossiness, stubbornness, excessive and frequent insistence...
Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence

that requests be met, mood lability, demoralization, dysphoria, rejection by peers, and poor self-esteem. Academic achievement is often markedly impaired and devalued, typically leading to conflict with the family and with school authorities. Inadequate self-application to tasks that require sustained effort is often interpreted by others as indicating laziness, a poor sense of responsibility, and oppositional behavior. Family relationships are often characterized by resentment and antagonism, especially because variability in the individual’s symptomatic status often leads others to believe that all the troublesome behavior is willful. Family discord and negative parent-child interactions are often present. Such negative interactions often diminish with successful treatment. On average, individuals with Attention-Deficit/Hyperactivity Disorder obtain less schooling than their peers and have poorer vocational achievement. Also, on average, intellectual level, as assessed by individual IQ tests, is several points lower in children with this disorder compared with peers. At the same time, great variability in IQ is evidenced: individuals with Attention-Deficit/Hyperactivity Disorder may show intellectual development in the above-average or gifted range. In its severe form, the disorder is markedly impairing, affecting social, familial, and scholastic adjustment. All three subtypes are associated with significant impairment. Academic deficits and school-related problems tend to be most pronounced in the types marked by inattention (Predominantly Inattentive and Combined Types), whereas peer rejection and, to a lesser extent, accidental injury are most salient in the types marked by hyperactivity and impulsivity (Predominantly Hyperactive-Impulsive and Combined Types). Individuals with the Predominantly Inattentive Type tend to be socially passive and appear to be neglected, rather than rejected, by peers.

A substantial proportion (approximately half) of clinic-referred children with Attention-Deficit/Hyperactivity Disorder also have Oppositional Defiant Disorder or Conduct Disorder. The rates of co-occurrence of Attention-Deficit/Hyperactivity Disorder with these other Disruptive Behavior Disorders are higher than with other mental disorders, and this co-occurrence is most likely in the two subtypes marked by hyperactivity-impulsivity (Hyperactive-Impulsive and Combined Types). Other associated disorders include Mood Disorders, Anxiety Disorders, Learning Disorders, and Communication Disorders in children with Attention-Deficit/Hyperactivity Disorder. Although Attention-Deficit/Hyperactivity Disorder appears in at least 50% of clinic-referred individuals with Tourette’s Disorder, most individuals with Attention-Deficit/Hyperactivity Disorder do not have accompanying Tourette’s Disorder. When the two disorders coexist, the onset of the Attention-Deficit/Hyperactivity Disorder often precedes the onset of the Tourette’s Disorder.

There may be a history of child abuse or neglect, multiple foster placements, neurotoxin exposure (e.g., lead poisoning), infections (e.g., encephalitis), drug exposure in utero, or Mental Retardation. Although low birth weight may sometimes be associated with Attention-Deficit/Hyperactivity Disorder, most children with low birth weight do not develop Attention-Deficit/Hyperactivity Disorder, and most children with Attention-Deficit/Hyperactivity Disorder do not have a history of low birth weight.

**Associated laboratory findings.** There are no laboratory tests, neurological assessments, or attentional assessments that have been established as diagnostic in the clinic-

related assessment of ADHD. The effortful mental processes that are not of demonstrated interest, and that an individual has the disorder and are responsible for such behaviors.

**Associated physical findings.** There are no specific physical findings of ADHD, although (e.g., cleft palate, low-set ears) may also be a higher rate.

**Specific Culture, Age, Gender, and Ethic Considerations.**

Attention-Deficit/Hyperactivity Disorder (ADHD) is a common disorder in children and may include four subtypes: Inattentive Type, Hyperactive-Impulsive Type, Predominantly Inattentive Type, and Combined Type. School children are often socially well adjusted and may experience few demands on their time. Toddlers can be held in the classroom and can typically sit with appropriate control. Inattentive-Type ADHD is less difficult to contain. Inquiring into the home environment is helpful in ensuring that the child is well supported and that the environment has been demonstrated to influence children with Hyperactivity Disorder. Children may be successful in classroom work and academic achievement, despite the breaking of familial, intellectual, and social barriers. Attention-Deficit/Hyperactivity Disorder is often associated with attentiveness and hyperactivity symptoms may include restlessness and inattentiveness. Attention and hyperactivity symptoms may appear in childhood. Caution should be taken in the diagnosis of Hyperactivity Disorder in younger children, especially when hyper-attentive or hyperactive behavior is often problematic. Attentional hyperactivity symptoms appear to be associated with some degree of hyperactivity and restlessness. In adulthood, these symptoms often continue to manifest, interfering with daily functioning. The presence of these symptoms in adulthood suggests a lifelong pattern of attentional difficulties and hyperactivity.
first Diagnosed in Infancy, Childhood, or Adolescence

...phoria, rejection by peers, and overactive and deviant school authorities. Inadequate self-image is often interpreted by children, and oppositional behavior, and antagonism, espe-
cially when associated with psychosocial status often leads others to label them as family discord and negative interactions often diminish the attention-deficit/hyperactivity disorder (ADHD) and have poorer vocational status exhibited by individual IQ tests compared with peers. At the same time, children with Attention-Deficit/ Hyperactivity Disorder often tend to be more pro-
curably Inattentive and Composite types. Accidental injury are most likely in the Predominantly Hyperactivity Disorder type, the Predominantly Inattentive type, rather than rejected, and the least in the Combined Type. Preferred children with Attention-Deficit Disorder or Attention-Deficit/Hyperactivity Disorder are higher than with other the two subtypes marked Combined Types). Other Disorders, Learning Disorder-Deficit/Hyperactivity Disorder appears in at least disorder, most individuals with Tourette's Syndrome are Deficit/Hyperactivity Disorder. Sarcopenic and muscle disease, drug exposure may sometimes be associated, and most children with low birth disorder, and most children have a history of low birth tests, neurological assessment of Attention-Deficit/Hyperactivity Disorder. Tests that require the individual's mental processing have been noted to be abnormal in groups with Attention-Deficit/Hyperactivity Disorder compared with peers, but these tests are not of demonstrated utility when one is trying to determine whether a particular individual has the disorder. It is not yet known what fundamental cognitive deficits are responsible for such group differences.

Associated physical examination findings and general medical conditions. There are no specific physical features associated with Attention-Deficit/Hyperactivity Disorder, although minor physical anomalies (e.g., hypertelorism, highly arched palate, low-set ears) may occur at a higher rate than in the general population. There may also be a higher rate of accidental physical injury.

Specific Culture, Age, and Gender Features

Attention-Deficit/Hyperactivity Disorder is known to occur in various cultures, with variations in reported prevalence among Western countries probably arising more from different diagnostic practices than from differences in clinical presentation.

It is difficult to establish this diagnosis in children younger than age 4 or 5 years, because their characteristic behavior is much more variable than that of older children and may include features that are similar to symptoms of Attention-Deficit/Hyperactivity Disorder. Furthermore, symptoms of inattention in toddlers or preschool children are often not readily observed because young children typically experience few demands for sustained attention. However, even the attention of toddlers can be held in a variety of situations (e.g., the average 2- or 3-year-old child can typically sit with an adult looking through picture books). Young children with Attention-Deficit/Hyperactivity Disorder move excessively and typically are difficult to contain. Inquiring about a wide variety of behaviors in a young child may be helpful in ensuring that a full clinical picture has been obtained. Substance use has been demonstrated in preschool-age children with Attention-Deficit/Hyperactivity Disorder. In school-age children, symptoms of inattention affect classroom work and academic performance. Impulsive symptoms may also lead to the breaking of familial, interpersonal, and educational rules. Symptoms of Attention-Deficit/Hyperactivity Disorder are typically at their most prominent during the elementary grades. As children mature, symptoms usually become less conspicuous. By late childhood and early adolescence, signs of excessive gross motor activity (e.g., excessive running and climbing, not remaining seated) are less common, and hyperactivity symptoms may be confined to fidgetiness or an inner feeling of restlessness. In adulthood, restlessness may lead to difficulty in participating in sedentary activities and to avoiding pastimes or occupations that provide limited opportunity for spontaneous movement (e.g., desk jobs). Social dysfunction in adults appears to be especially likely in those who had additional concurrent diagnoses in childhood. Caution should be exercised in making the diagnosis of Attention-Deficit/Hyperactivity Disorder in adults solely on the basis of the adult's recall of being inattentive or hyperactive as a child, because the validity of such retrospective data is often problematic. Although supporting information may not always be available, corroborating information from other informants (including prior school records) is helpful for improving the accuracy of the diagnosis.
Diagnostic criteria for Attention-Deficit/Hyperactivity Disorder

A. Either (1) or (2):

(1) six (or more) of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Inattention
(a) often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
(b) often has difficulty sustaining attention in tasks or play activities
(c) often does not seem to listen when spoken to directly
(d) often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)
(e) often has difficulty organizing tasks and activities
(f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
(g) often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
(h) is often easily distracted by extraneous stimuli
(i) is often forgetful in daily activities

(2) six (or more) of the following symptoms of hyperactivity-impulsivity have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Hyperactivity
(a) often fidgets with hands or feet or squirms in seat
(b) often leaves seat in classroom or in other situations in which remaining seated is expected
(c) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
(d) often has difficulty playing or engaging in leisure activities quietly
(e) is often “on the go” or often acts as if “driven by a motor”
(f) often talks excessively

Impulsivity
(g) often blurts out answers before questions have been completed
(h) often has difficulty awaiting turn
(i) often interrupts or intrudes on others (e.g., butts into conversations or games)

B. Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.

C. Some impairment from the symptoms is present in two or more settings (e.g., at school [or work] and at home).

314.9 Attention-Deficit/Hyperactivity Disorder, Not Otherwise Specified

D. There must be clear evidence that the symptoms are not better accounted for by another mental disorder, Schizophrenia, or a Personality Disorder.

E. The symptoms do not occur exclusively during the course of a Mental Retardation Disorder.

Code based on type:

314.01 Attention-Deficit/Hyperactivity Disorder, Predominantly Inattentive Type:
314.00 Attention-Deficit/Hyperactivity Disorder, Predominantly Hyperactive-Impulsive Type:
314.01 Attention-Deficit/Hyperactivity Disorder, Combined Type:
314.00 Attention-Deficit/Hyperactivity Disorder, Combined Type:
for the past 6 months

Coding note: For individuals whose symptoms are inattentive, not primarily hyperactive-impulsive, symptoms that no longer meet criteria are coded 314.00.

314.9 Attention-Deficit/Hyperactivity Disorder, Not Otherwise Specified

This category is for disorders of attention, hyperactivity, or impulsivity that do not meet criteria for the other diagnosis categories. Examples include

1. Individuals whose symptoms meet the criteria for Attention-Deficit/Hyperactivity Disorder with an onset at age 7 years or above
2. Individuals with clinical criteria for Attention-Deficit/Hyperactivity Disorder and whose symptoms do not meet criteria for a behavioral pattern of conduct or (mild) mental retardation

Diagnostic Features

The essential feature of Conduct Disorder is persistent pattern of impairing behavior in which the basic human rights of others or rules are violated (Criterion A).

The symptoms must be manifested in two or more settings.

The symptoms must have persisted for at least 6 months and must not be better accounted for by another mental disorder.
Diagnosis criteria for Delirium Due to Multiple Etiologies

A. Disturbance of consciousness (i.e., reduced clarity of awareness of the environment) with reduced ability to focus, sustain, or shift attention.

B. A change in cognition (such as memory deficit, disorientation, language disturbance) or the development of a perceptual disturbance that is not better accounted for by a preexisting, established, or evolving dementia.

C. The disturbance develops over a short period of time (usually hours to days) and tends to fluctuate during the course of the day.

D. There is evidence from the history, physical examination, or laboratory findings that the delirium has more than one etiology (e.g., more than one etiological general medical condition, a general medical condition plus Substance Intoxication or medication side effect).

Coding note: Use multiple codes reflecting specific delirium and specific etiologies, e.g., 293.0 Delirium Due to Viral Encephalitis; 291.0 Alcohol Withdrawal Delirium.

780.09 Delirium Not Otherwise Specified

This category should be used to diagnose a delirium that does not meet criteria for any of the specific types of delirium described in this section. Examples include:

1. A clinical presentation of delirium that is suspected to be due to a general medical condition or substance use but for which there is insufficient evidence to establish a specific etiology
2. Delirium due to causes not listed in this section (e.g., sensory deprivation)

Dementia

The disorders in the “Dementia” section are characterized by the development of multiple cognitive deficits (including memory impairment) that are due to the direct physiological effects of a general medical condition, to the persisting effects of a substance, or to multiple etiologies (e.g., the combined effects of cerebrovascular disease and Alzheimer’s disease). The disorders in this section share a common symptom presentation but are differentiated based on etiology. The diagnostic features listed in the next section pertain to Dementia of the Alzheimer’s Type, Vascular Dementia, Dementia Due to HIV Disease, Dementia Due to Head Trauma, Dementia Due to Parkinson’s Disease, Dementia Due to Huntington’s Disease, Dementia Due to Pick’s Disease, Dementia Due to Creutzfeldt-Jakob Disease, Dementia Due to Other General Medical Conditions, Substance-Induced Persisting Dementia, and De-
Dementia Due to Multiple Etiologies. In addition, Dementia Not Otherwise Specified is included in this section for presentations in which the clinician is unable to determine a specific etiology for the multiple cognitive deficits.

Diagnostic Features

The essential feature of a dementia is the development of multiple cognitive deficits that include memory impairment and at least one of the following cognitive disturbances: aphasia, apraxia, agnosia, or a disturbance in executive functioning. The cognitive deficits must be sufficiently severe to cause impairment in occupational or social functioning and must represent a decline from a previously higher level of functioning. A diagnosis of a dementia should not be made if the cognitive deficits occur exclusively during the course of a delirium. However, a dementia and a delirium may both be diagnosed if the dementia is present at times when the delirium is not present. Dementia may be etiologically related to a general medical condition, to the persisting effects of substance use (including toxin exposure), or to a combination of these factors.

Memory impairment is required to make the diagnosis of a dementia and is a prominent early symptom (Criterion A1). Individuals with dementia become impaired in their ability to learn new material, or they forget previously learned material. Most individuals with dementia have both forms of memory impairment, although it is sometimes difficult to demonstrate the loss of previously learned material early in the course of the disorder. They may lose valuable items like wallets and keys, forget food cooking on the stove, and become lost in unfamiliar neighborhoods. In advanced stages of dementia, memory impairment is so severe that the person forgets his or her occupation, schooling, birthday, family members, and sometimes even name.

Memory may be formally tested by asking the person to register, retain, recall, and recognize information. The ability to learn new information may be assessed by asking the individual to learn a list of words. The individual is requested to repeat the words (registration), to recall the information after a delay of several minutes (retention, recall), and to recognize the words from a multiple list (recognition). Individuals with difficulty learning new information are not helped by clues or prompts (e.g., multiple-choice questions) because they did not learn the material initially. In contrast, individuals with primarily retrieval deficits can be helped by clues and prompts because their impairment is in the ability to access their memories. Remote memory may be tested by asking the individual to recall personal information or past material that the individual found of interest (e.g., politics, sports, entertainment). It is also useful to determine (from the individual and informants) the impact of the memory disturbances on the individual’s functioning (e.g., ability to work, shop, cook, pay bills, return home without getting lost).

Deterioration of language function (aphasia) may be manifested by difficulty producing the names of individuals and objects (Criterion A2a). The speech of individuals with aphasia may become vague or empty, with long circumlocutory phrases and excessive use of terms of indefinite reference such as “thing” and “it.” Comprehension of spoken and written language and repetition of language may also be compromised. In the advanced stages of dementia, individuals may be mute or have a deteriorated speech pattern characterized by repeating sounds or words in unusual order (e.g., to name objects in the physical environment), repeating a name (e.g., to name objects in the physical environment), repeat phrases (“no ifs, ands, or buts”). Individuals with dementia may also have motor activities despite intact sensation. Apraxia may manifest as difficulty in motor skills on tasks and complex information. Individuals with dementia may have difficulty using objects despite intact sensation, but be unable to insert the key into the lock or insert the coin or keys.

Disturbances in executive functioning (Criterion A2d) and may be observed as a lack of ability to abstractly and to plan, in part by impairment in abstract thinking and coping with novel tasks and complex situations. The person to find similar function is also evident in the ability to follow verbal and nonverbal information. The function include asking the individual 7s, state as many animals as possible, and ask the individual to name the individual’s daily life (e.g., ability to perform daily activities).

The items in both Criteria A1 and A2 may cause significant impairments in daily living (Criterion B). The nature and extent of the individual’s particular social setting of the job that is less demanding (e.g., personal care, use implements or tools such as the severity of impairment).
Dementia Not Otherwise Specified

In situations where a patient presents with a dementia not otherwise specified, the clinician is unable to determine the exact type of dementia. There are at least three possible explanations for this outcome: the absence of a definitive diagnosis due to the lack of clear symptoms, the presence of multiple cognitive deficits that do not fit into any specific diagnostic category, or the presence of executive functioning problems. The cognitive impairment in occupational or personal tasks is less than would be expected given the patient’s previous level of function, even if the cognitive deficits are severe. A dementia may be diagnosed in patients with delirium, at times when the delirium is present, as a general medical condition, to exposure, or to a combination of causes.

A diagnosis of a dementia and is a clinical diagnosis. A patient with dementia becomes impaired, can forget previously learned materials, and experience a loss of previously learned material values like wallets and keys, and even their own reflection in the mirror. In some cases, it may be severe to the point of being unable to register, retain, recall, or reproduce information, and may be assessed by asking the individual to repeat the list of items and the recall of several minutes (repetition list, recognition). Individuals are able to be helped by clues and prompts (e.g., the material initially. In contrast, the ability helped them in their memories. Remote memory recall information or past material (sports, entertainment). It is also important to note the impact of the memory impairment on the individual’s daily life (e.g., the ability to work, shop, cook, pay bills).

The items in both Criterion A1 (memory impairment) and Criterion A2 (aphasia, apraxia, agnosia, or disturbance in executive functioning) must be severe enough to cause significant impairment in social or occupational functioning (e.g., going to school, working, shopping, dressing, bathing, handling finances, and other activities of daily living) and must represent a decline from a previous level of functioning. The nature and degree of impairment are variable and often depend on the particular social setting of the individual. The same level of cognitive impairment may significantly impair an individual’s ability to perform a complex job, but not a job that is less demanding. Standardized published rating scales that measure physical maintenance (e.g., personal hygiene), intellectual functioning, and the ability to use implements or tools (e.g., telephone, washing machine) can be used to measure the severity of impairment.
Dementia is not diagnosed if these symptoms occur exclusively during the course of a delirium. However, a delirium may be superimposed on a preexisting dementia, in which case both diagnoses should be given.

Associated Features and Disorders

**Associated descriptive features and mental disorders.** Individuals with dementia may become spatially disoriented and have difficulty with spatial tasks. Visuospatial functioning can be assessed by asking the individual to copy drawings, such as a circle, overlapping pentagons, and a cube. Poor judgment and poor insight are common in dementia. Individuals may exhibit little or no awareness of memory loss or other cognitive abnormalities. They may make unrealistic assessments of their abilities and make plans that are not congruent with their deficits and prognosis (e.g., planning to start a new business). They may underestimate the risks involved in activities (e.g., driving). Occasionally, they may harm others by becoming violent. Suicidal behavior may occur, particularly in early stages when the individual is more capable of carrying out a plan of action. Dementia is sometimes accompanied by motor disturbances of gait leading to falls. Some individuals with dementia show disinhibited behavior, including making inappropriate jokes, neglecting personal hygiene, exhibiting undue familiarity with strangers, or disregarding conventional rules of social conduct. Slurred speech may occur in dementia that is associated with subcortical pathology such as Parkinson's disease, Huntington's disease, and some cases of Vascular Dementia. The multiple cognitive impairments of dementia are often associated with anxiety, mood, and sleep disturbances. Delusions are common, especially those involving themes of persecution (e.g., that misplaced possessions have been stolen). Hallucinations can occur in all sensory modalities, but visual hallucinations are most common. Delirium is frequently superimposed on dementia because the underlying brain disease may increase susceptibility to confusional states that may be produced by medications or other concurrent general medical conditions. Individuals with dementia may be especially vulnerable to physical stressors (e.g., illness or minor surgery) and psychosocial stressors (e.g., going to the hospital, bereavement), which may exacerbate their intellectual deficits and other associated problems.

**Associated laboratory findings.** A discussion of associated laboratory findings that are specific to types of dementia is included in the text for each dementia. Invariably there are abnormalities in cognitive and memory functioning, which can be assessed using mental status examinations and neuropsychological testing. Neuroimaging may aid in the differential diagnosis of dementia. Computed tomography (CT) or magnetic resonance imaging (MRI) may reveal cerebral atrophy, focal brain lesions (cortical strokes, tumors, subdural hematomas), hydrocephalus, or periventricular ischemic brain injury. Functional imaging such as positron-emission tomography (PET) or single photon emission computed tomography (SPECT) are not routinely used in the evaluation of dementia, but may provide useful differential diagnostic information (e.g., parietal lobe changes in Alzheimer's disease or frontal lobe alterations in frontal lobe degenerations) in individuals without evidence of structural changes on CT or MRI scans.

**Dementia**

Associated physical examination associated with the stage of progression of dementia is Alzheimer’s disease or other dementia due to other causes (including dementia due to head trauma or neurodegenerative disorders). Infectious disorders (e.g., Creutzfeldt-Jakob disease), endocrine disorders (e.g., hypercalcemia, hypoglycemia, hypothyroidism, vitamin deficiencies), metabolic disorders (e.g., amyloidosis), immune disorders, hepatic conditions, metabolic conditions, toxic conditions (e.g., methotrexate, metachromatic leukodystrophy, and other neurological disorders).

**Specific Culture and Personal History**

Cultural and educational evaluation of an individual's mental status may not be familiar with the identification of common symptoms of mental status, such as names of presidents, geographic locations, or events that do not routinely celebrate holidays. For example, travel may be conceptualized in terms of different causes of dementia. For example, a person who has been involved in a car accident with injuries, endocrine conditions (e.g., diabetes), and substance abuse) varies widely.

The age at onset of dementia is important, and in multiple cognitive symptoms, it may be difficult to document in the initial stages. The diagnosis of Mental Retardation with onset in childhood, however, may not be practical until the child reaches adolescence, but can occur as early as childhood. Behavioral changes (e.g., agitation, aggression, and self-injury) are common in dementia. Functional imaging may be used to evaluate the brain, but may provide useful differential diagnostic information. Functional imaging such as positron-emission tomography (PET) or single photon emission computed tomography (SPECT) are not routinely used in the evaluation of dementia. For example, parietal lobe changes in Alzheimer's disease or frontal lobe alterations in frontal lobe degenerations) in individuals without evidence of structural changes on CT or MRI scans.

**Prevalence**

Reported prevalence of dementia varies widely, depending on the ages of the subjects studied and type of cognitive impairment. Cross-sectional studies estimated a 1-year prevalence...
Dementia

Associated physical examination findings and general medical conditions. The associated physical examination findings of dementia depend on the nature, location, and stage of progression of the underlying pathology. The most common cause of dementia is Alzheimer’s disease. Other frequent forms include vascular dementia and dementia due to other neurodegenerative processes, such as Lewy body disease (including dementia due to Parkinson’s disease) and frontotemporal degeneration (including Pick’s disease). Other causes are less common and include normal-pressure hydrocephalus, Huntington’s disease, traumatic brain injury, brain tumors, anoxia, infectious disorders (e.g., human immunodeficiency virus [HIV], syphilis), prion diseases (e.g., Creutzfeldt-Jakob disease), endocrine conditions (e.g., hypothyroidism, hypercalcemia, hypoglycemia), vitamin deficiencies (e.g., deficiencies of thiamine or niacin), immune disorders (e.g., temporal arteritis, systemic lupus erythematosus), hepatic conditions, metabolic conditions (e.g., Kufs’ disease, adrenoleukodystrophy, metachromatic leukodystrophy, and other storage diseases of adulthood and childhood), and other neurological conditions (e.g., multiple sclerosis).

Specific Culture and Age Features

Cultural and educational background should be taken into consideration in the evaluation of an individual’s mental capacity. Individuals from certain backgrounds may not be familiar with the information used in tests of general knowledge (e.g., names of presidents, geographical knowledge), memory (e.g., date of birth in cultures that do not routinely celebrate birthdays), and orientation (e.g., sense of place and location may be conceptualized differently in some cultures). The prevalence of different causes of dementia (e.g., infections, nutritional deficiencies, traumatic brain injury, endocrine conditions, cerebrovascular diseases, seizure disorders, brain tumors, substance abuse) varies substantially across cultural groups.

The age at onset of dementia depends on the etiology, but is usually late in life, with highest prevalence above age 85 years. A significant deterioration in memory and in multiple cognitive skills, which is necessary for the diagnosis of dementia, may be difficult to document in very young children. Thus, the diagnosis of dementia may not be practical until the child is older (usually between ages 4 and 6 years). In individuals under age 18 years with Mental Retardation, an additional diagnosis of a dementia should be made only if the condition is not characterized satisfactorily by the diagnosis of Mental Retardation alone. Dementia is uncommon in children and adolescents, but can occur as a result of general medical conditions (e.g., head injury, brain tumors, HIV infection, strokes, adrenoleukodystrophies). Dementia in children may present as a deterioration in functioning (as in adults) or as a significant delay or deviation in normal development. Deteriorating school performance may be an early sign.

Prevalence

Reported prevalence of dementia varies among epidemiological studies, depending on the ages of the subjects sampled; methods of determining the presence, severity, and type of cognitive impairment; and the regions or countries studied. Community studies estimated a 1-year prospective prevalence of almost 3.0% with severe cogni-
Delirium, Dementia, and Amnestic and Other Cognitive Disorders

tive impairment in the adult population. The study assessed individuals with a brief instrument that assessed current cognitive status (the Mini-Mental State Exam), which does not identify specific diagnoses. A variety of epidemiological studies have shown that the prevalence of dementia, especially Dementia of the Alzheimer's Type, increases with age. The prevalence figures range from 1.4% to 1.6% for individuals ages 65–69 years, rising to 16% to 25% for those over age 85 years.

Course

Historically, the term dementia implied a progressive or irreversible course. The DSM-IV definition of dementia, however, is based on the pattern of cognitive deficits and carries no connotation concerning prognosis. Dementia may be progressive, static, or remitting. The reversibility of a dementia is a function of the underlying pathology and of the availability and timely application of effective treatment. The mode of onset and subsequent course of dementia also depend on the underlying etiology. The level of disability depends not only on the severity of the individual's cognitive impairments but also on the available social supports. In advanced dementia, the individual may become totally oblivious to his or her surroundings and require constant care. Individuals with severe dementia are susceptible to accidents and infectious diseases, which often prove fatal.

Differential Diagnosis

Memory impairment occurs in both delirium and dementia. Delirium is also characterized by a reduced ability to maintain and shift attention appropriately. The clinical course can help to differentiate between delirium and dementia. Typically, symptoms in delirium fluctuate and symptoms in dementia are relatively stable. Multiple cognitive impairments that persist in an unchanged form for more than a few months suggest dementia rather than delirium. Delirium may be superimposed on a dementia, in which case both disorders are diagnosed. In situations in which it is unclear whether the cognitive deficits are due to a delirium or a dementia, it may be useful to make a provisional diagnosis of delirium and observe the person carefully while continuing efforts to identify the nature of the disturbance.

An amnestic disorder is characterized by severe memory impairment without other significant impairments of cognitive functioning (i.e., aphasia, apraxia, agnosia, or disturbances in executive functioning).

The presumed etiology determines the specific dementia diagnosis. If the clinician has determined that the dementia is due to multiple etiologies, multiple codes based on the specific dementias and their etiologies should be used (see Dementia Due to Multiple Etiologies, p. 170). In Vascular Dementia, focal neurological signs (e.g., exaggeration of deep tendon reflexes, extensor plantar response) and laboratory evidence of vascular disease judged to be related to the dementia are present. The clinical course of Vascular Dementia is variable and typically progresses in stepwise fashion. The presence of Dementia Due to Other General Medical Conditions (e.g., Pick's disease, HIV) requires evidence from the history, physical examination, and appropriate laboratory tests that a general medical condition is etiologically related to the dementia. The onset of the deterioration (gradual or sudden) and its course

Dementia (acute, subacute, or chronic) is the severity of the impairment, injury, encephalitis, or stroke.

Multiple cognitive deficits are diagnosed as Substance Intoxication from the persisting effects of drug exposure, then Substance-Induced Dementia (e.g., Dementia considered, even in a person is not infrequent during substance use, and other causes for the condition, the course is characteristic. In those cases in which the dementia is due to a general condition Not Otherwise Specified (NOS) or of the symptoms of dementia, the individual's intellectual functioning, with an onset before age 18, with memory impairment is evident. If the onset of the dementia may be diagnosed as a significant deterioration in intellectual functioning for the diagnosis of dementia in individuals under age 18 years, the condition is not characterized.

Schizophrenia can also cause a decline in functioning, but at age at onset, its characteristics in intellectual general medical conditions are associated with Schizophrenia.

Major Depressive Disorder, difficulty thinking, intellectual abilities. Individuals show and neuropsychological tests to determine whether cognitive decline is from a Major Depressive Episode, thorough medical evaluation and temporal sequencing of depressed history, and treatment response. The differentiate "pseudodementive Episode" from dementia, declining cognitive function, is much more likely to have
Dementia

Dementia is characterized by significantly subaverage current general intellectual functioning, with concurrent impairments in adaptive functioning and with an onset before age 18 years. Mental Retardation is not necessarily associated with memory impairment. In contrast, the age at onset of dementia is usually late in life. If the onset of the dementia is before age 18 years, both dementia and Mental Retardation may be diagnosed if the criteria for both disorders are met. Documenting a significant deterioration in memory and in other cognitive skills, which is necessary for the diagnosis of dementia, may be difficult in persons under age 4 years. In individuals under age 18 years, the diagnosis of dementia should be made only if the condition is not characterized satisfactorily by the diagnosis of Mental Retardation alone.

Schizophrenia can also be associated with multiple cognitive impairments and a decline in functioning, but Schizophrenia is unlike dementia in its generally earlier age at onset, its characteristic symptom pattern, and the absence of a specific etiological general medical condition or substance. Typically, the cognitive impairment associated with Schizophrenia is less severe than that seen in Dementia.

Major Depressive Disorder may be associated with complaints of memory impairment, difficulty thinking and concentrating, and an overall reduction in intellectual abilities. Individuals sometimes perform poorly on mental status examinations and neuropsychological testing. Particularly in elderly persons, it is often difficult to determine whether cognitive symptoms are better accounted for by a dementia or by a Major Depressive Episode. This differential diagnosis may be informed by a thorough medical evaluation and an evaluation of the onset of the disturbance, the temporal sequencing of depressive and cognitive symptoms, the course of illness, family history, and treatment response. The premorbid state of the individual may help to differentiate “pseudodementia” (i.e., cognitive impairments due to the Major Depressive Episode) from dementia. In dementia, there is usually a premorbid history of declining cognitive function, whereas the individual with a Major Depressive Episode is much more likely to have a relatively normal premorbid state and abrupt cognitive
Delirium, Dementia, and Amnestic and Other Cognitive Disorders

decline associated with the depression. If the clinician determines that both a dementia and Major Depressive Disorder are present with independent etiologies, both should be diagnosed.

Dementia must be distinguished from Malingering and Factitious Disorder. The patterns of cognitive deficits presented in Malingering and Factitious Disorder are usually not consistent over time and are not characteristic of those typically seen in dementia. For example, individuals with Factitious Disorder or Malingering manifesting as dementia may perform calculations while keeping score during a card game, but then claim to be unable to perform similar calculations during a mental status examination.

Dementia must be distinguished from the normal decline in cognitive functioning that occurs with aging (as in Age-Related Cognitive Decline). The diagnosis of dementia is warranted only if there is demonstrable evidence of greater memory and other cognitive impairment than would be expected due to normal aging processes and the symptoms cause impairment in social or occupational functioning.

294.1x* Dementia of the Alzheimer’s Type

Diagnostic Features

The cognitive deficits (Criterion A) and the required impairment (Criterion B) are discussed on pp. 147–150. The onset of Dementia of the Alzheimer’s Type is gradual and involves continuing cognitive decline (Criterion C). Because of the difficulty of obtaining direct pathological evidence of the presence of Alzheimer’s disease, the diagnosis can be made only when other etiologies for the dementia have been ruled out. Specifically, the cognitive deficits are not due to other central nervous system conditions that cause progressive deficits in memory or cognition (e.g., cerebrovascular disease, Parkinson’s disease, Huntington’s disease), systemic conditions that are known to cause dementia (e.g., hypothyroidism, vitamin B12 deficiency, HIV infection), or the persisting effects of a substance (e.g., alcohol) (Criterion D). If there is an additional etiology (e.g., head trauma worsening a Dementia of the Alzheimer’s Type), both types of dementia should be coded (see Dementia Due to Multiple Etiologies, p. 170). Dementia of the Alzheimer’s Type should not be diagnosed if the symptoms occur exclusively during delirium (Criterion E). However, delirium may be superimposed on a preexisting Dementia of the Alzheimer’s Type, in which case the With Delirium subtype should be indicated. Finally, the cognitive deficits are not better accounted for by another Axis I disorder (e.g., Major Depressive Disorder or Schizophrenia) (Criterion F).

Subtypes

The age at onset of Dementia of the Alzheimer’s Type is indicated by the use of one of the following subtypes:

With Early Onset: 65 years or under
With Late Onset: 65 years.

The presence or absence is indicated by using one of the following:
.
.10 Without Behavioral disturbance is not noted.
.11 With Behavioral disturbance is accompanied by (e.g., wandering, agitated)

Recording Procedures

The diagnostic code depends on the significant behavioral disturbance or onset. Thus, the diagnostic code is

Early Onset, Without Behavioral
Type, With Late Onset, With
Behavioral

Dementia of the Alzheimer’s Type, With
in addition, 331.0 Alzheimer’s

Other prominent clinical manifested by coding the specific axis I. For example, to indicate significant depressed mood, and Psychotic Disorder Due to can

Associated Features and

Associated descriptive features discussion of features and of Dementia of the Alzheimer’s Type in individuals with a history characteristic of Alzheimer’s disease may or the time they are dementia are not usually evidencing

Associated laboratory finding biological marker is currently Dementia of the Alzheimer’s brain atrophy is present in
Dementia Due to Huntington’s Disease

Due to Lewy body disease, one of the dementias due to other general medical conditions (see p. 167).

**294.1x** Dementia Due to Huntington’s Disease

The essential feature of Dementia Due to Huntington’s Disease is the presence of a dementia that is judged to be the direct pathophysiological consequence of Huntington’s disease. Huntington’s disease is an inherited progressive degenerative disease of cognition, emotion, and movement. The disease affects men and women equally and is transmitted by a single autosomal dominant gene on the short arm of chromosome 4. The disease is usually diagnosed in the late 30s to early 40s but may begin as early as age 4 years in the juvenile form or as late as age 85 years in the late-onset form. The onset of Huntington’s disease is often heralded by insidious changes in behavior and personality, including depression, irritability, and anxiety. Some individuals present with abnormalities of movement that resemble increased fidgeting and that later progress to characteristic generalized choreoaethesias. Difficulties with memory retrieval, executive functioning, and judgment are common early in the course, with more severe memory deficits occurring as the disease progresses. Disorganized speech and psychotic features are sometimes present. Late in the disease, characteristic “boxcar ventricles” may be seen on structural brain imaging due to the atrophy of the striatum. Positron-emission tomography (PET) may show striatal hypometabolism early in the disease. Offspring of individuals with Huntington’s disease have a 50% chance of developing the disease. A genetic test is available to determine with relative certainty whether a given at-risk individual is likely to develop the disease; however, such testing may be best administered by centers with experience in counseling and follow-up of individuals at risk for Huntington’s disease.

**294.1x** Dementia Due to Pick’s Disease

The essential feature of Dementia Due to Pick’s Disease is the presence of a dementia that is judged to be the direct pathophysiological consequence of Pick’s disease. Pick’s disease is a degenerative disease of the brain that particularly affects the frontal and temporal lobes. As in other frontal lobe dementias, Pick’s disease is characterized clinically by changes in personality early in the course, deterioration of social skills, emotional blunting, behavioral disinhibition, and prominent language abnormalities. Difficulties with memory, apraxia, and other features of dementia usually follow later in the course. Prominent primitive reflexes (snout, suck, grasp) may be present. As the dementia progresses, it may be accompanied by either apathy or extreme agitation. Individuals may develop such severe problems in language, attention, or behavior that it may be difficult to assess their degree of cognitive impairment. Structural brain imaging typically reveals prominent frontal and/or temporal atrophy, and functional brain imaging may localize frontotemporal hypometabolism, even in the absence of clear structural atrophy. The disorder most commonly manifests itself in individuals between ages 50 and 60 years, although it can occur among older individuals. Pick’s disease is one of the pathologically distinct etiologies among the heterogeneous group of dementing processes that are associated with frontotemporal brain...
294.1x* Dementia Due to Creutzfeldt-Jakob Disease

The essential feature of Dementia Due to Creutzfeldt-Jakob Disease is the presence of a dementia that is judged to be the direct pathophysiological consequence of Creutzfeldt-Jakob disease. Creutzfeldt-Jakob disease is one of the subacute spongiform encephalopathies, a group of central nervous system diseases caused by transmissible agents known as “slow viruses” or prions. Typically, individuals with Creutzfeldt-Jakob disease manifest the clinical triad of dementia, involuntary movements (particularly myoclonus), and periodic EEG activity. However, up to 25% of individuals with the disorder may have atypical presentations, and the disease can be confirmed only by biopsy or at autopsy with the demonstration of spongiform neuropathological changes. Creutzfeldt-Jakob disease may develop at any age in adults, but most typically when they are between ages 40 and 60 years. From 5% to 15% of cases may have a familial component. Prodromal symptoms of Creutzfeldt-Jakob disease may include fatigue, anxiety, or problems with appetite, sleeping, or concentration and may be followed after several weeks by incoordination, altered vision, or abnormal gait or other movements that may be myoclonic, choreoathetoid, or ballistic, along with a rapidly progressive dementia. The disease typically progresses very rapidly over several months, although more rarely it can progress over years and appear similar in its course to other dementias. Although there are no distinctive findings on cerebrospinal fluid analysis, reliable biomarkers are being developed. Nonspecific atrophy may be apparent on neuroimaging. In most individuals, the EEG typically reveals periodic sharp, often triphasic and synchronous discharges at a rate of 0.5–2 Hz at some point during the course of the disorder. The transmissible agent thought to be responsible for Creutzfeldt-Jakob disease is resistant to boiling, formalin, alcohol, and ultraviolet radiation, but it can be inactivated by pressured autoclaving or by bleach. Transmission by corneal transplantation and human growth factor injection has been documented, and anecdotal cases of transmission to health care workers have been reported. Therefore, when neurosurgery, brain biopsy, or brain autopsy is undertaken, universal precautions should be taken with both tissue and equipment that comes in contact with tissue. Cross-species transmission of prion infections, with agents that are closely related to the human form, has now been demonstrated (e.g., the outbreak of bovine spongiform encephalopathy [mad cow disease] human variant Creutzfeldt-Jakob disease in the United Kingdom during the mid-1990s).

*ICD-9-CM code valid after October 1, 2000.
Eating Disorders

The Eating Disorders are characterized by severe disturbances in eating behavior. This section includes two specific diagnoses, Anorexia Nervosa and Bulimia Nervosa. Anorexia Nervosa is characterized by a refusal to maintain a minimally normal body weight. Bulimia Nervosa is characterized by repeated episodes of binge eating followed by inappropriate compensatory behaviors such as self-induced vomiting; misuse of laxatives, diuretics, or other medications; fasting; or excessive exercise. A disturbance in perception of body shape and weight is an essential feature of both Anorexia Nervosa and Bulimia Nervosa. An Eating Disorder Not Otherwise Specified category is also provided for coding disorders that do not meet criteria for a specific Eating Disorder.

Simple obesity is included in the International Classification of Diseases (ICD) as a general medical condition but does not appear in DSM-IV because it has not been established that it is consistently associated with a psychological or behavioral syndrome. However, when there is evidence that psychological factors are of importance in the etiology or course of a particular case of obesity, this can be indicated by noting the presence of Psychological Factors Affecting Medical Condition (p. 731).

Disorders of Feeding and Eating that are usually first diagnosed in infancy or early childhood (i.e., Pica, Rumination Disorder, and Feeding Disorder of Infancy or Early Childhood) are included in the section “Feeding and Eating Disorders of Infancy or Early Childhood” (p. 103).

307.1 Anorexia Nervosa

Diagnostic Features

The essential features of Anorexia Nervosa are that the individual refuses to maintain a minimally normal body weight, is intensely afraid of gaining weight, and exhibits a significant disturbance in the perception of the shape or size of his or her body. In addition, postmenarcheal females with this disorder are amenorrheic. (The term anorexia is a misnomer because loss of appetite is rare.)

The individual maintains a body weight that is below a minimally normal level for age and height (Criterion A). When Anorexia Nervosa develops in an individual during childhood or early adolescence, there may be failure to make expected weight gains (i.e., while growing in height) instead of weight loss.

Criterion A provides a guideline for determining when the individual meets the threshold for being underweight. It suggests that the individual weigh less than 85% of that weight that is considered normal for that person’s age and height (usually
computed using one of several published versions of the Metropolitan Life Insurance tables or pediatric growth charts). An alternative and somewhat stricter guideline (used in the ICD-10 Diagnostic Criteria for Research) requires that the individual have a body mass index (BMI) (calculated as weight in kilograms/height in meters$^2$) equal to or below 17.5 kg/m$^2$. These cutoffs are provided only as suggested guidelines for the clinician, since it is unreasonable to specify a single standard for minimally normal weight that applies to all individuals of a given age and height. In determining a minimally normal weight, the clinician should consider not only such guidelines but also the individual’s body build and weight history.

Usually weight loss is accomplished primarily through reduction in total food intake. Although individuals may begin by excluding from their diet what they perceive to be highly caloric foods, most eventually end up with a very restricted diet that is sometimes limited to only a few foods. Additional methods of weight loss include purging (i.e., self-induced vomiting or the misuse of laxatives or diuretics) and increased or excessive exercise.

Individuals with this disorder intensely fear gaining weight or becoming fat (Criterion B). This intense fear of becoming fat is usually not alleviated by the weight loss. In fact, concern about weight gain often increases even as actual weight continues to decrease.

The experience and significance of body weight and shape are distorted in these individuals (Criterion C). Some individuals feel globally overweight. Others realize that they are thin but are still concerned that certain parts of their bodies, particularly the abdomen, buttocks, and thighs, are “too fat.” They may employ a wide variety of techniques to estimate their body size or weight, including excessive weighing, obsessive measuring of body parts, and persistently using a mirror to check for perceived areas of “fat.” The self-esteem of individuals with Anorexia Nervosa is highly dependent on their body shape and weight. Weight loss is viewed as an impressive achievement and a sign of extraordinary self-discipline, whereas weight gain is perceived as an unacceptable failure of self-control. Though some individuals with this disorder may acknowledge being thin, they typically deny the serious medical implications of their malnourished state.

In postmenarcheal females, amenorrhea (due to abnormally low levels of estrogen secretion that are due in turn to diminished pituitary secretion of follicle-stimulating hormone [FSH] and luteinizing hormone [LH]) is an indicator of physiological dysfunction in Anorexia Nervosa (Criterion D). Amenorrhea is usually a consequence of the weight loss but, in a minority of individuals, may actually precede it. In prepubertal females, menarche may be delayed by the illness.

The individual is often brought to professional attention by family members after marked weight loss (or failure to make expected weight gains) has occurred. If individuals seek help on their own, it is usually because of their subjective distress over the somatic and psychological sequelae of starvation. It is rare for an individual with Anorexia Nervosa to complain of weight loss per se. Individuals with Anorexia Nervosa frequently lack insight into, or have considerable denial of, the problem and may be unreliable historians. It is therefore often necessary to obtain information from parents or other outside sources to evaluate the degree of weight loss and other features of the illness.

Subtypes

The following subtypes can be present when binge eating or purging during the current episode:

Restricting Type. This subtype is accomplished primarily through the current episode, the absence of binge eating or purging.

Binge-Eating/Purging Type. Most individuals are regularly engaged in binge eating or purging. Some individuals include binge eating and purging after the consumption of massive binges with Binge-Eating/Purging Type individuals with Binge-Eating/Purging Type weekly, but sufficient in frequency for a minimum frequency.

Associated Features and Associated descriptive features: An individual who is underweight, many individuals with Anorexia Nervosa exhibit obsessive-compulsive features such as depressed mood, social withdrawal, and lack of interest in sex. Such individuals merit a diagnosis of Major Depressive Disorder. Individuals without Anorexia Nervosa and those with obsessional features may be secondary to the mood disturbance and may be associated with complete weight restoration. Obsessive-compulsive features may be prominent. Most individuals with Anorexia Nervosa exhibit a marked diet of food. Some collect recipes of foods associated with other forms of starvation. Such food may be caused or exacerbated by Anorexia Nervosa exhibit obsessive-compulsive eating, shape, or weight, an additional diagnosis warranted.

Other features sometimes associated with Anorexia Nervosa include eating in public, feelings of utter isolation, inflexible thinking, limited initiative and emotions. Some individuals with Anorexia Nervosa have a borderline or one Personality Disorder. Compulsive Type, those with the Anorexia Nervosa, or other impulse-control problems, mood lability, to be sexually active...
307.1 Anorexia Nervosa

Subtypes

The following subtypes can be used to specify the presence or absence of regular binge eating or purging during the current episode of Anorexia Nervosa:

Restricting Type. This subtype describes presentations in which weight loss is accomplished primarily through dieting, fasting, or excessive exercise. During the current episode, these individuals have not regularly engaged in binge eating or purging.

Binge-Eating/Purging Type. This subtype is used when the individual has regularly engaged in binge eating or purging (or both) during the current episode. Most individuals with Anorexia Nervosa who binge eat also purge through self-induced vomiting or the misuse of laxatives, diuretics, or enemas. Some individuals included in this subtype do not binge eat, but do regularly purge after the consumption of small amounts of food. It appears that most individuals with Binge-Eating/Purging Type engage in these behaviors at least weekly, but sufficient information is not available to justify the specification of a minimum frequency.

Associated Features and Disorders

Associated descriptive features and mental disorders. When seriously underweight, many individuals with Anorexia Nervosa manifest depressive symptoms such as depressed mood, social withdrawal, irritability, insomnia, and diminished interest in sex. Such individuals may have symptomatic presentations that meet criteria for Major Depressive Disorder. Because these features are also observed in individuals without Anorexia Nervosa who are undergoing starvation, many of the depressive features may be secondary to the physiological sequelae of semistarvation. Symptoms of mood disturbance must therefore be reassessed after partial or complete weight restoration.

Obsessive-compulsive features, both related and unrelated to food, are often prominent. Most individuals with Anorexia Nervosa are preoccupied with thoughts of food. Some collect recipes or hoard food. Observations of behaviors associated with other forms of starvation suggest that obsessions and compulsions related to food may be caused or exacerbated by undernutrition. When individuals with Anorexia Nervosa exhibit obsessions and compulsions that are not related to food, body shape, or weight, an additional diagnosis of Obsessive-Compulsive Disorder may be warranted.

Other features sometimes associated with Anorexia Nervosa include concerns about eating in public, feelings of ineffectiveness, a strong need to control one's environment, inflexible thinking, limited social spontaneity, perfectionism, and overly restrained initiative and emotional expression. A substantial portion of individuals with Anorexia Nervosa have a personality disturbance that meets criteria for at least one Personality Disorder. Compared with individuals with Anorexia Nervosa, Restricting Type, those with the Binge-Eating/Purging Type are more likely to have other impulse-control problems, to abuse alcohol or other drugs, to exhibit more mood lability, to be sexually active, to have a greater frequency of suicide attempts in
their history, and to have a personality disturbance that meets criteria for Borderline Personality Disorder.

**Associated laboratory findings.** Although some individuals with Anorexia Nervosa exhibit no laboratory abnormalities, the semistarvation characteristic of this disorder can affect most major organ systems and produce a variety of disturbances. The induced vomiting and abuse of laxatives, diuretics, and enemas can also cause a number of disturbances leading to abnormal laboratory findings.

*Hematology:* Leukopenia and mild anemia are common; thrombocytopenia occurs rarely.

*Chemistry:* Dehydration may be reflected by an elevated blood urea nitrogen (BUN). Hypercholesterolemia is common. Liver function tests may be elevated. Hypomagnesemia, hypozincemia, hypophosphatemia, and hyperamylasemia are occasionally found. Induced vomiting may lead to metabolic alkalosis (elevated serum bicarbonate), hypochloremia, and hypokalemia, and laxative abuse may cause a metabolic acidosis. Serum thyroxine (T₄) levels are usually in the low-normal range; triiodothyronine (T₃) levels are decreased. Hyperadrenocorticism and abnormal responsiveness to a variety of neuroendocrine challenges are common.

In females, low serum estrogen levels are present, whereas males have low levels of serum testosterone. There is a regression of the hypothalamic-pituitary-gonadal axis in both sexes in that the 24-hour pattern of secretion of luteinizing hormone (LH) resembles that normally seen in prepubertal or pubertal individuals.

*Electrocardiography:* Sinus bradycardia and, rarely, arrhythmias are observed.

*Electroencephalography:* Diffuse abnormalities, reflecting a metabolic encephalopathy, may result from significant fluid and electrolyte disturbances.

*Brain imaging:* An increase in the ventricular-brain ratio secondary to starvation is often seen.

*Resting energy expenditure:* This is often significantly reduced.

**Associated physical examination findings and general medical conditions.** Many of the physical signs and symptoms of Anorexia Nervosa are attributable to starvation. In addition to amenorrhea, there may be complaints of constipation, abdominal pain, cold intolerance, lethargy, and excess energy. The most obvious finding on physical examination is emaciation. There may also be significant hypotension, hypothermia, and dryness of skin. Some individuals develop lanugo, a fine downy body hair, on their trunks. Most individuals with Anorexia Nervosa exhibit bradycardia. Some develop peripheral edema, especially during weight restoration or on cessation of laxative and diuretic abuse. Rarely, petechiae, usually on the extremities, may indicate a bleeding diathesis. Some individuals evidence a yellowing of the skin associated with hypercarotenemia. Hypertrophy of the salivary glands, particularly the parotid glands, may be present. Individuals who induce vomiting may have dental enamel erosion and some may have scars or calluses on the dorsum of the hand from contact with the teeth when using the hand to induce vomiting.

The semistarvation of Anorexia Nervosa, and the purging behaviors sometimes associated with it, can result in significant associated general medical conditions. These include the development of normochromic normocytic anemia, impaired renal function (associated with chronic dehydration and hypokalemia), cardiovascular problems (severe hypotension resulting from low calcium intake, increased cortisol secretion).

**Specific Culture, Age, and Gender Considerations**

Anorexia Nervosa appears to be more prevalent among females than males. In some cultures, this disorder is more prevalent than in others. Cultural factors (e.g., being thin is considered attractive) may play a role. In the United States, Canada, and Europe, the prevalence is lower than in Asia. However, little systematic work has been done to determine the prevalence of eating disorders in other cultures. The prevalence of anorexia nervosa is more prevalent among females than among males. Cultural factors, such as the emphasis on thinness, may be a significant influence on the occurrence of this disorder.

**Prevalence**

The lifetime prevalence of anorexia nervosa is estimated to be about 1%. The prevalence among females is higher than among males. The prevalence of anorexia nervosa is higher among individuals who are slender, athletic, or who are motivated by a desire to have perfect control over their bodies. In the United States, Canada, and Europe, the prevalence is lower than in Asia. However, little systematic work has been done to determine the prevalence of eating disorders in other cultures. The prevalence of anorexia nervosa is more prevalent among females than among males. Cultural factors, such as the emphasis on thinness, may be a significant influence on the occurrence of this disorder.

**Course**

Anorexia Nervosa typically begins during early adolescence and may continue into adulthood. The disorder may be associated with psychosocial stressors and may be more severe among females. The course of anorexia nervosa is highly variable, with many individuals experiencing relapse and remission over many years. With time, the individual may develop significant medical problems, such as cardiac abnormalities, renal failure, and endocrine disturbances. The prognosis is generally poor, with many individuals requiring hospitalization. The diagnosis of anorexia nervosa is based on the presence of significant weight loss and a marked disturbance in body image. The disorder is typically diagnosed in adolescence or early adulthood. The prevalence of anorexia nervosa is higher among females than among males. Cultural factors, such as the emphasis on thinness, may be a significant influence on the occurrence of this disorder.

Hospitalization may be necessary for severe cases, and treatment may include psychotherapy, family therapy, and medication. The treatment of anorexia nervosa is complex and often requires a multidisciplinary approach involving medical, psychological, and nutritional expertise.
Anorexia Nervosa

problems (severe hypotension, arrhythmias), dental problems, and osteoporosis (resulting from low calcium intake and absorption, reduced estrogen secretion, and increased cortisol secretion).

Specific Culture, Age, and Gender Features

Anorexia Nervosa appears to be far more prevalent in industrialized societies, in which there is an abundance of food and in which, especially for females, being considered attractive is linked to being thin. The disorder is probably most common in the United States, Canada, Europe, Australia, Japan, New Zealand, and South Africa, but little systematic work has examined prevalence in other cultures. Immigrants from cultures in which the disorder is rare who emigrate to cultures in which the disorder is more prevalent may develop Anorexia Nervosa as thin-body ideals are assimilated. Cultural factors may also influence the manifestations of the disorder. For example, in some cultures, disturbed perception of the body or fear of weight gain may not be prominent and the expressed motivation for food restriction may have a different content, such as epigastric discomfort or distaste for food.

Anorexia Nervosa rarely begins before puberty, but there are suggestions that the severity of associated mental disturbances may be greater among prepubertal individuals who develop the illness. However, data also suggest that when the illness begins during early adolescence (between ages 13 and 18 years), it may be associated with a better prognosis. More than 90% of cases of Anorexia Nervosa occur in females.

Prevalence

The lifetime prevalence of Anorexia Nervosa among females is approximately 0.5%. Individuals who are subthreshold for the disorder (i.e., with Eating Disorder Not Otherwise Specified) are more commonly encountered. The prevalence of Anorexia Nervosa among males is approximately one-tenth that among females. The incidence of Anorexia Nervosa appears to have increased in recent decades.

Course

Anorexia Nervosa typically begins in mid- to late adolescence (age 14–18 years). The onset of this disorder rarely occurs in females over age 40 years. The onset of illness may be associated with a stressful life event. The course and outcome of Anorexia Nervosa are highly variable. Some individuals with Anorexia Nervosa recover fully after a single episode, some exhibit a fluctuating pattern of weight gain followed by relapse, and others experience a chronically deteriorating course of the illness over many years. With time, particularly within the first 5 years of onset, a significant fraction of individuals with the Restricting Type of Anorexia Nervosa develop binge eating, indicating a change to the Binge Eating/Purging subtype. A sustained shift in clinical presentation (e.g., weight gain plus the presence of binge eating and purging) may eventually warrant a change in diagnosis to Bulimia Nervosa.

Hospitalization may be required to restore weight and to address fluid and electrolyte imbalances. Of individuals admitted to university hospitals, the long-term
mortality from Anorexia Nervosa is over 10%. Death most commonly results from starvation, suicide, or electrolyte imbalance.

Familial Pattern

There is an increased risk of Anorexia Nervosa among first-degree biological relatives of individuals with the disorder. An increased risk of Mood Disorders has also been found among first-degree biological relatives of individuals with Anorexia Nervosa, particularly relatives of individuals with the Binge-Eating/Purging Type. Studies of Anorexia Nervosa in twins have found concordance rates for monozygotic twins to be significantly higher than those for dizygotic twins.

Differential Diagnosis

Other possible causes of significant weight loss should be considered in the differential diagnosis of Anorexia Nervosa, especially when the presenting features are atypical (such as an onset of illness after age 40 years). In general medical conditions (e.g., gastrointestinal disease, brain tumors, occult malignancies, and acquired immunodeficiency syndrome [AIDS]), serious weight loss may occur, but individuals with such disorders usually do not have a distorted body image and a desire for further weight loss. The superior mesenteric artery syndrome (characterized by postprandial vomiting secondary to intermittent gastric outlet obstruction) should be distinguished from Anorexia Nervosa, although this syndrome may sometimes develop in individuals with Anorexia Nervosa because of their emaciation. In Major Depressive Disorder, severe weight loss may occur, but most individuals with Major Depressive Disorder do not have a desire for excessive weight loss or excessive fear of gaining weight. In Schizophrenia, individuals may exhibit odd eating behavior and occasionally experience significant weight loss, but they rarely show the fear of gaining weight and the body image disturbance required for a diagnosis of Anorexia Nervosa.

Some of the features of Anorexia Nervosa are part of the criteria sets for Social Phobia, Obsessive-Compulsive Disorder, and Body Dysmorphic Disorder. Specifically, individuals may be humiliated or embarrassed to be seen eating in public, as in Social Phobia; may exhibit obsessions and compulsions related to food, as in Obsessive-Compulsive Disorder; or may be preoccupied with an imagined defect in bodily appearance, as in Body Dysmorphic Disorder. If the individual with Anorexia Nervosa has social fears that are limited to eating behavior alone, the diagnosis of Social Phobia should not be made, but social fears unrelated to eating behavior (e.g., excessive fear of speaking in public) may warrant an additional diagnosis of Social Phobia. Similarly, an additional diagnosis of Obsessive-Compulsive Disorder should be considered only if the individual exhibits obsessions and compulsions unrelated to food (e.g., an excessive fear of contamination), and an additional diagnosis of Body Dysmorphic Disorder should be considered only if the distortion is unrelated to body shape and size (e.g., preoccupation that one’s nose is too big).

In Bulimia Nervosa, individuals exhibit recurrent episodes of binge eating, engage in inappropriate behavior to avoid weight gain (e.g., self-induced vomiting), and are overly concerned with body shape and weight. However, unlike individuals with
Death most commonly results from...

Among first-degree biological relatives of Mood Disorders has also been studied, with Anorexia Nervosa, Binge-Eating/Purging Type. Studies of monozygotic twins to twins.

Anorexia Nervosa, Binge-Eating/Purging Type, individuals with Bulimia Nervosa are able to maintain body weight at or above a minimally normal level.

**Diagnostic criteria for 307.1 Anorexia Nervosa**

A. Refusal to maintain body weight at or above a minimally normal weight for age and height (e.g., weight loss leading to maintenance of body weight less than 85% of that expected; or failure to make expected weight gain during period of growth, leading to body weight less than 85% of that expected).

B. Intense fear of gaining weight or becoming fat, even though underweight.

C. Disturbance in the way in which one’s body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight.

D. In postmenarcheal females, amenorrhea, i.e., the absence of at least three consecutive menstrual cycles. (A woman is considered to have amenorrhea if her periods occur only following hormone, e.g., estrogen, administration.)

Specify type:

- **Restricting Type:** during the current episode of Anorexia Nervosa, the person has not regularly engaged in binge-eating or purging behavior (i.e., self-induced vomiting or the misuse of laxatives, diuretics, or enemas)

- **Binge-Eating/Purging Type:** during the current episode of Anorexia Nervosa, the person has regularly engaged in binge-eating or purging behavior (i.e., self-induced vomiting or the misuse of laxatives, diuretics, or enemas)

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**307.51 Bulimia Nervosa**

**Diagnostic Features**

The essential features of Bulimia Nervosa are binge eating and inappropriate compensatory methods to prevent weight gain. In addition, the self-evaluation of individuals with Bulimia Nervosa is excessively influenced by body shape and weight. To qualify for the diagnosis, the binge eating and the inappropriate compensatory behaviors must occur, on average, at least twice a week for 3 months (Criterion C).

A binge is defined as eating in a discrete period of time an amount of food that is definitely larger than most individuals would eat under similar circumstances (Criterion A1). The clinician should consider the context in which the eating occurred—what would be regarded as excessive consumption at a typical meal might be considered normal during a celebration or holiday meal. A “discrete period of time” refers to a limited period, usually less than 2 hours. A single episode of binge eating need not be restricted to one setting. For example, an individual may begin a binge in a restaurant and then continue it on returning home. Continual snacking on small amounts of food throughout the day would not be considered a binge.

Although the type of food consumed during binges varies, it typically includes...
Cluster B Personality Disorders

301.7 Antisocial Personality Disorder

Diagnostic Features

The essential feature of Antisocial Personality Disorder is a pervasive pattern of disregard for, and violation of, the rights of others that begins in childhood or early adolescence and continues into adulthood.
or make amends for their behavior and say "number one" and that one should have brought their .

The antisocial behavior must not be due to Psychosis, Mood Disorder, or make amends for their behavior and say "number one" and that one should have brought their .

The antisocial behavior must not be due to Psychosis, Mood Disorder, or

Associated Features and Disorders

Individuals with Antisocial Personality Disorder may be callous, cynical, and contumacious. They may have an inflated sense of self-worth, lack empathy, and may be excessively opportunistic or manipulative. These individuals may be involved in illegal activities and may engage in activities that are harmful to others.

Lack of empathy, inflated self-aggrandizement, and a lack of concern for the well-being of others are common features of Antisocial Personality Disorder. These individuals may be involved in illegal activities and may engage in activities that are harmful to others.

Specific Culture, Age, and Gender

Antisocial Personality Disorder is more common in white males and is associated with status and urban settings. Concern for the well-being of others is common features of Antisocial Personality Disorder. These individuals may be involved in illegal activities and may engage in activities that are harmful to others.
misapplied to individuals in settings in which seemingly antisocial behavior may be part of a protective survival strategy. In assessing antisocial traits, it is helpful for the clinician to consider the social and economic context in which the behaviors occur.

By definition, Antisocial Personality cannot be diagnosed before age 18 years. Antisocial Personality Disorder is much more common in males than in females. There has been some concern that Antisocial Personality Disorder may be underdiagnosed in females, particularly because of the emphasis on aggressive items in the definition of Conduct Disorder.

Prevalence

The overall prevalence of Antisocial Personality Disorder in community samples is about 3% in males and about 1% in females. Prevalence estimates within clinical settings have varied from 3% to 30%, depending on the predominant characteristics of the populations being sampled. Even higher prevalence rates are associated with substance abuse treatment settings and prison or forensic settings.

Course

Antisocial Personality Disorder has a chronic course but may become less evident or remit as the individual grows older, particularly by the fourth decade of life. Although this remission tends to be particularly evident with respect to engaging in criminal behavior, there is likely to be a decrease in the full spectrum of antisocial behaviors and substance use.

Familial Pattern

Antisocial Personality Disorder is more common among the first-degree biological relatives of those with the disorder than among the general population. The risk to biological relatives of females with the disorder tends to be higher than the risk to biological relatives of males with the disorder. Biological relatives of persons with this disorder are also at increased risk for Somatization Disorder and Substance-Related Disorders. Within a family that has a member with Antisocial Personality Disorder, males more often have Antisocial Personality Disorder and Substance-Related Disorders, whereas females more often have Somatization Disorder. However, in such families, there is an increase in prevalence of all of these disorders in both males and females compared with the general population. Adoption studies indicate that both genetic and environmental factors contribute to the risk of this group of disorders. Both adopted and biological children of parents with Antisocial Personality Disorder have an increased risk of developing Antisocial Personality Disorder, Somatization Disorder, and Substance-Related Disorders. Adopted-away children resemble their biological parents more than their adoptive parents, but the adoptive family environment influences the risk of developing a Personality Disorder and related psychopathology.

Differential Diagnosis

The diagnosis of Antisocial Personality Disorder is made after the individual is 18 years and is given only if the individual has engaged in antisocial behavior before age 15 years. For individuals who have engaged in antisocial behavior only after age 15 years, the diagnosis is given only if the criteria for Conduct Disorder are not met.

When antisocial behavior begins before age 15 years, the diagnosis of Antisocial Personality Disorder is given if the person continues to engage in antisocial behavior and meets the criteria for the disorder into adulthood. When substance abuse occurs before age 15 years and continued into adulthood, Antisocial Personality Disorder should be diagnosed if some antisocial acts may be related to the illegal selling of drugs or the illegal acts that occur exclusively during substance use. Thus, antisocial behaviors that do not occur during or immediately after the use of substances cannot be diagnosed as Antisocial Personality Disorder.

Other Personality Disorders may be diagnosed because they have certain characteristics that are similar to Antisocial Personality Disorder. However, if an individual has Antisocial Personality Disorder in adulthood, it is important to also consider the possibility of Antisocial Personality Disorder in childhood or early adolescence. The diagnosis of Antisocial Personality Disorder and Borderline Personality Disorder is often made in individuals who are impulsive, superficial, excited, and engage in behaviors that are often motivated by a desire for immediate gratification. However, some individuals with Borderline Personality Disorder do not have a history of substance abuse, whereas those with Borderline Personality Disorder do. Therefore, the diagnosis of Borderline Personality Disorder is more likely to be made in individuals who have had a history of substance abuse and who are motivated by a desire for immediate gratification.
Personality Disorders

301.7 Antisocial Personality Disorder

or make amends for their behavior. They may believe that everyone is out to “help number one” and that one should stop at nothing to avoid being pushed around.

The antisocial behavior must not occur exclusively during the course of Schizophrenia or a Manic Episode (Criterion D).

Associated Features and Disorders

Individuals with Antisocial Personality Disorder frequently lack empathy and tend to be callous, cynical, and contemptuous of the feelings, rights, and sufferings of others. They may have an inflated and arrogant self-appraisal (e.g., feel that ordinary work is beneath them or lack a realistic concern about their current problems or their future) and may be excessively opinionated, self-assured, or cocky. They may display a glib, superficial charm and can be quite voluble and verbally facile (e.g., using technical terms or jargon that might impress someone who is unfamiliar with the topic).

Lack of empathy, inflated self-appraisal, and superficial charm are features that have been commonly included in traditional conceptions of psychopathy that may be particularly distinguishing of the disorder and more predictive of recidivism in prison or forensic settings where criminal, delinquent, or aggressive acts are likely to be nonspecific. These individuals may also be irresponsible and exploitative in their sexual relationships. They may have a history of many sexual partners and may never have sustained a monogamous relationship. They may be irresponsible as parents, as evidenced by malnutrition of a child, an illness in the child resulting from a lack of minimal hygiene, a child’s dependence on neighbors or nonresident relatives for food or shelter, a failure to arrange for a caretaker for a young child when the individual is away from home, or repeated squandering of money required for household necessities. These individuals may receive dishonorable discharges from the armed services, may fail to be self-supporting, may become impoverished or even homeless, or may spend many years in penal institutions. Individuals with Antisocial Personality Disorder are more likely than people in the general population to die prematurely by violent means (e.g., suicide, accidents, and homicides).

Individuals with this disorder may also experience dysphoria, including complaints of tension, inability to tolerate boredom, and depressed mood. They may have associated Anxiety Disorders, Depressive Disorders, Substance-Related Disorders, Somatization Disorder, Pathological Gambling, and other disorders of impulse control. Individuals with Antisocial Personality Disorder also often have personality features that meet criteria for other Personality Disorders, particularly Borderline, Histrionic, and Narcissistic Personality Disorders. The likelihood of developing Antisocial Personality Disorder in adult life is increased if the individual experienced an early onset of Conduct Disorder (before age 10 years) and accompanying Attention-Deficit/Hyperactivity Disorder. Child abuse or neglect, unstable or erratic parenting, or inconsistent parental discipline may increase the likelihood that Conduct Disorder will evolve into Antisocial Personality Disorder.

Specific Culture, Age, and Gender Features

Antisocial Personality Disorder appears to be associated with low socioeconomic status and urban settings. Concerns have been raised that the diagnosis may at times be
Personality Disorders

Antisocial Personality Disorder

Differential Diagnosis

The diagnosis of Antisocial Personality Disorder is not given to individuals under age 18 years and is given only if there is a history of some symptoms of Conduct Disorder before age 15 years. For individuals over age 18 years, a diagnosis of Conduct Disorder is given only if the criteria for Antisocial Personality Disorder are not met.

When antisocial behavior in an adult is associated with a Substance-Related Disorder, the diagnosis of Antisocial Personality Disorder is not made unless the signs of Antisocial Personality Disorder were also present in childhood and have continued into adulthood. When substance use and antisocial behavior both began in childhood and continued into adulthood, both a Substance-Related Disorder and Antisocial Personality Disorder should be diagnosed if the criteria for both are met, even though some antisocial acts may be a consequence of the Substance-Related Disorder (e.g., illegal selling of drugs or thefts to obtain money for drugs). Antisocial behavior that occurs exclusively during the course of Schizophrenia or a Manic Episode should not be diagnosed as Antisocial Personality Disorder.

Other Personality Disorders may be confused with Antisocial Personality Disorder because they have certain features in common. It is, therefore, important to distinguish among these disorders based on differences in their characteristic features. However, if an individual has personality features that meet criteria for one or more Personality Disorders in addition to Antisocial Personality Disorder, all can be diagnosed. Individuals with Antisocial Personality Disorder and Narcissistic Personality Disorder share a tendency to be tough-minded, glib, superficial, exploitative, and unempathic. However, Narcissistic Personality Disorder does not include characteristics of impulsivity, aggression, and deceit. In addition, individuals with Antisocial Personality Disorder may not be as needy of the admiration and envy of others, and persons with Narcissistic Personality Disorder usually lack the history of Conduct Disorder in childhood or criminal behavior in adulthood. Individuals with Antisocial Personality Disorder and Histrionic Personality Disorder share a tendency to be impulsive, superficial, excitement seeking, reckless, seductive, and manipulative, but persons with Histrionic Personality Disorder tend to be more exaggerated in their emotions and do not characteristically engage in antisocial behaviors. Individuals with Histrionic and Borderline Personality Disorders are manipulative to gain nurturance, whereas those with Antisocial Personality Disorder are manipulative to gain profit, power, or some other material gratification. Individuals with Antisocial Personality Disorder tend to be less emotionally unstable and more aggressive than those with Borderline Personality Disorder. Although antisocial behavior may be present in some individuals with Paranoid Personality Disorder, it is not usually motivated by a desire for personal gain or to exploit others as in Antisocial Personality Disorder, but rather is more often due to a desire for revenge.

Antisocial Personality Disorder must be distinguished from criminal behavior undertaken for gain that is not accompanied by the personality features characteristic of this disorder. Adult Antisocial Behavior (listed in the “Other Conditions That May Be a Focus of Clinical Attention” section, p. 740) can be used to describe criminal, aggressive, or other antisocial behavior that comes to clinical attention but that does not meet the full criteria for Antisocial Personality Disorder. Only when antisocial personality traits are inflexible, maladaptive, and persistent and cause significant func-
tional impairment or subjective distress do they constitute Antisocial Personality Disorder.

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<tr>
<th>Diagnostic criteria for 301.7 Antisocial Personality Disorder</th>
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<td>A. There is a pervasive pattern of disregard for and violation of the rights of others occurring since age 15 years, as indicated by three (or more) of the following:</td>
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<td>(1) failure to conform to social norms with respect to lawful behaviors as indicated by repeatedly performing acts that are grounds for arrest</td>
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<td>(2) deceitfulness, as indicated by repeated lying, use of aliases, or conning others for personal profit or pleasure</td>
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<tr>
<td>(3) impulsivity or failure to plan ahead</td>
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<td>(4) irritability and aggressiveness, as indicated by repeated physical fights or assaults</td>
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<tr>
<td>(5) reckless disregard for safety of self or others</td>
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<tr>
<td>(6) consistent irresponsibility, as indicated by repeated failure to sustain consistent work behavior or honor financial obligations</td>
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<tr>
<td>(7) lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another</td>
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<td>B. The individual is at least age 18 years.</td>
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<tr>
<td>C. There is evidence of Conduct Disorder (see p. 98) with onset before age 15 years.</td>
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<td>D. The occurrence of antisocial behavior is not exclusively during the course of Schizophrenia or a Manic Episode.</td>
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<th>301.83 Borderline Personality Disorder</th>
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<td>Diagnostic Features</td>
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The essential feature of Borderline Personality Disorder is a pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity that begins by early adulthood and is present in a variety of contexts.

Individuals with Borderline Personality Disorder make frantic efforts to avoid real or imagined abandonment (Criterion 1). The perception of impending separation or rejection, or the loss of external structure, can lead to profound changes in self-image, affect, cognition, and behavior. These individuals are very sensitive to environmental circumstances. They experience intense abandonment fears and inappropriate anger even when faced with a realistic time-limited separation or when there are unavoidable changes in plans (e.g., sudden despair in reaction to a clinician’s announcing the end of the hour; panic or fury when someone important to them is just a few minutes late or must cancel an appointment). They may believe that this “abandonment” implies they are “bad.” These abandonment fears are related to an intolerance of being alone and a need to have other people with them. Their frantic efforts to avoid abandonment may include impulsive actions such as self-mutilating or suicidal behaviors, which are described separately in Criterion 5.

Individuals with Borderline Personality Disorder often experience intense relationships (Criterion 2). They may idealize others who do not give enough, does not give enough, is inarticulate and won’t nurture other people, i.e., in return to meals are prone to sudden and dramatic changes that may be seen as beneficent supports or abandonment with a caregiver whose rejection or abandonment is expected.

There may be identity disturbance when unstable self-image or sense of self in self-image, characterized by splitting. There may be sudden changes in values, and types of friends. These individuals may be needy and dependant help to a fault, and they usually have a self-image that abandonment may occur at times have feelings. These individuals present for help to a fault, and they usually have a self-image that abandonment occurs in situations in which they can be nurtured, and support. They may have unstructured work or school situations.

Individuals with this disorder present potentially self-damaging (Criterion 3), binge eating, abuse substances, engaging in Borderline Personality Disorder (Criterion 4), threats, or self-mutilating behaviors. The first 10% of such individuals, and self-mutilating threats and attempts are very common. Many of these individuals present for help because of threats of separation or rejection. Self-mutilation may bring relief by reinforcing the feeling of being evil.

Individuals with Borderline Personality Disorder that is due to a marked reactivity, or anxiety usually lasting a few weeks (Criterion 6). The basic dysphoric mood may be often disrupted by periods of alternating periods of well-being or satisfaction. The reactivity to interpersonal stress may be troubled by chronic feelings of abandonment. They may constantly seek something, or in order frequently express inappropriate anger (Criterion 8). They may express verbal outbursts. The anger is