

6A05 Attention deficit hyperactivity disorder

Parent

- [Neurodevelopmental disorders](#)

Show all ancestors 

Description

Attention deficit hyperactivity disorder is characterised by a persistent pattern (at least 6 months) of inattention and/or hyperactivity-impulsivity that has a direct negative impact on academic, occupational, or social functioning. There is evidence of significant inattention and/or hyperactivity-impulsivity symptoms prior to age 12, typically by early to mid-childhood, though some individuals may first come to clinical attention later. The degree of inattention and hyperactivity-impulsivity is outside the limits of normal variation expected for age and level of intellectual functioning. Inattention refers to significant difficulty in sustaining attention to tasks that do not provide a high level of stimulation or frequent rewards, distractibility and problems with organisation. Hyperactivity refers to excessive motor activity and difficulties with remaining still, most evident in structured situations that require behavioural self-control. Impulsivity is a tendency to act in response to immediate stimuli, without deliberation or consideration of the risks and consequences. The relative balance and the specific manifestations of inattentive and hyperactive-impulsive characteristics varies across individuals and may change over the course of development. In order for a diagnosis to be made, manifestations of inattention and/or hyperactivity-impulsivity must be evident across multiple situations or settings (e.g., home, school, work, with friends or relatives), but are likely to vary according to the structure and demands of the setting. Symptoms are not better accounted for by another mental, behavioural, or neurodevelopmental disorder and are not due to the effect of a substance or medication.

Inclusions

- attention deficit disorder with hyperactivity
- attention deficit syndrome with hyperactivity

Diagnostic Requirements

Essential (Required) Features:

- A persistent pattern (e.g., at least 6 months) of inattention symptoms and/or a combination of hyperactivity and impulsivity symptoms that is outside the limits of normal variation expected for age and level of intellectual development. Symptoms vary according to chronological age and disorder severity.

Inattention

- Several symptoms of inattention that are persistent, and sufficiently severe that they have a direct negative impact on academic, occupational, or social functioning. Symptoms are typically from the following clusters:
 - Difficulty sustaining attention to tasks that do not provide a high level of stimulation or reward or require sustained mental effort; lacking attention to detail; making careless mistakes in school or work assignments; not completing tasks.
 - Easily distracted by extraneous stimuli or thoughts not related to the task at hand; often does not seem to listen when spoken to directly; frequently appears to be daydreaming or to have mind elsewhere.
 - Loses things; is forgetful in daily activities; has difficulty remembering to complete upcoming daily tasks or activities; difficulty planning, managing and organizing schoolwork, tasks and other activities.

Note: Inattention may not be evident when the individual is engaged in activities that provide intense stimulation and frequent rewards.

Hyperactivity impulsivity

- Several symptoms of hyperactivity/impulsivity that are persistent, and sufficiently severe that they have a direct negative impact on academic, occupational, or social functioning. These tend to be most evident in structured situations that require behavioural self-control. Symptoms are typically from the following clusters:
 - Excessive motor activity; leaves seat when expected to sit still; often runs about; has difficulty sitting still without fidgeting (younger children); feelings of physical restlessness, a sense of discomfort with being quiet or sitting still (adolescents and adults).
 - Difficulty engaging in activities quietly; talks too much.
 - Blurts out answers in school, comments at work; difficulty waiting turn in conversation, games, or activities; interrupts or intrudes on others conversations or games.
 - A tendency to act in response to immediate stimuli without deliberation or consideration of risks and consequences (e.g., engaging in behaviours with potential for physical injury; impulsive decisions; reckless driving)
- Evidence of significant inattention and/or hyperactivity-impulsivity symptoms prior to age 12, though some individuals may first come to clinical attention later in adolescence or as adults, often when demands exceed the individual's capacity to compensate for limitations.
- Manifestations of inattention and/or hyperactivity-impulsivity must be evident across multiple situations or settings (e.g., home, school, work, with friends or relatives), but are likely to vary according to the structure and demands of the setting.
- Symptoms are not better accounted for by another mental disorder (e.g., an Anxiety or Fear-Related Disorder, a Neurocognitive Disorder such as Delirium).
- Symptoms are not due to the effects of a substance (e.g., cocaine) or medication (e.g., bronchodilators, thyroid replacement medication) on the central nervous system,

including and withdrawal effects, and are not due to a Disease of the Nervous System.

Specifiers to describe predominant characteristics of clinical presentation:

The characteristics of the current clinical presentation should be described using one of the following specifiers, which are meant to assist in recording the main reason for the current referral or services. Predominance of symptoms refers to the presence of several symptoms of either an inattentive or hyperactive/impulsive nature with few or no symptoms of the other type.

6A05.0 Attention Deficit Hyperactivity Disorder, predominantly inattentive presentation

- All diagnostic requirements for Attention Deficit Hyperactivity Disorder are met and inattentive symptoms predominate.

6A05.1 Attention Deficit Hyperactivity Disorder, predominantly hyperactive-impulsive presentation

- All diagnostic requirements for Attention Deficit Hyperactivity Disorder are met and symptoms of hyperactivity-impulsivity predominate.

6A05.2 Attention Deficit Hyperactivity Disorder, combined presentation

- All diagnostic requirements for Attention Deficit Hyperactivity Disorder are met and both hyperactive-impulsive and inattentive symptoms are clinically significant aspects of the current clinical presentation, with neither clearly predominating.

6A05.Y Attention Deficit Hyperactivity Disorder, other specified presentation

6A05.Z Attention Deficit Hyperactivity Disorder, presentation unspecified

Additional Clinical Features:

- Attention Deficit Hyperactivity Disorder usually manifests in early or middle childhood. In many cases, hyperactivity symptoms predominate in preschool and decrease with age such that they are no longer prominent beyond adolescence or may instead be reported as feelings of physical restlessness. Attentional problems may be more commonly observed beginning in later childhood, especially in school and in adults in occupational settings.
- The manifestations and severity of Attention Deficit Hyperactivity Disorder often vary according to the characteristics and demands of the environment. Symptoms and behaviours should be evaluated across multiple types of environments as a part of clinical assessment.
- Where available, teacher and parent reports should be obtained to establish the diagnosis in children and adolescents. In adults, the report of a significant other, family member, or co-worker can provide important additional information.

- Some individuals with Attention Deficit Hyperactivity Disorder may first present for services in adulthood. When making the diagnosis of Attention Deficit Hyperactivity Disorder in adults, a history of inattention, hyperactivity, or impulsivity before age 12 is an important corroborating feature that can be best established from school or local records, or from informants who knew the individual during childhood. In the absence of such corroborating information, a diagnosis of Attention Deficit Hyperactivity Disorder in older adolescents and adults should be made with caution.
- In a subset of individuals with Attention Deficit Hyperactivity Disorder, especially in children, an exclusively inattentive presentation may occur. There is no hyperactivity and the presentation is characterized by daydreaming, mind-wandering, and a lack of focus. These children are sometimes referred to as exhibiting a restrictive inattentive pattern of symptoms or sluggish cognitive tempo.
- In a subset of individuals with Attention Deficit Hyperactivity Disorder, combined presentation, severe inattentiveness and hyperactivity-impulsivity are both consistently present in most of the situations that an individual encounters, and are also evidenced by the clinician's own observations. This pattern is often referred to as hyperkinetic disorder and is considered a more severe form of the disorder.
- Attention Deficit Hyperactivity Disorder symptoms often significantly limit academic achievement. Adults with Attention Deficit Hyperactivity Disorder often find it difficult to hold down a demanding job and may be disproportionately underemployed or unemployed. Attention Deficit Hyperactivity Disorder can also strain interpersonal relationships across the life span including those with family members, peers, and romantic partners. Individuals with Attention Deficit Hyperactivity Disorder often have greater difficulty regulating their behaviour in the context of groups than in one-on-one situations.
- Attention Deficit Hyperactivity Disorder often co-occurs with other Neurodevelopmental Disorders, including Developmental Speech or Language Disorders, and Primary Tics or Tic Disorders, which are classified in the Chapter on Diseases of the Nervous System but cross-listed under Neurodevelopment Disorders. Attention Deficit Hyperactivity Disorder is associated with an increased risk of Obsessive-Compulsive Disorder and with elevated rates of epilepsy. Emotional dysregulation, low frustration tolerance, and subtle clumsiness and other minor ('soft') neurological abnormalities in sensory and motor performance in the absence of any identifiable brain pathology are also common in Attention Deficit Hyperactivity Disorder.
- Attention Deficit Hyperactivity Disorder is associated with an increased risk for physical health problems including accidents.
- Acute onset of hyperactive behaviour in a school-age child or adolescent should raise the possibility that symptoms are better accounted for by another mental disorder or by a medical condition. For example, abrupt onset of hyperactivity in adolescence or adulthood may indicate an emergent Primary Psychotic or Bipolar Disorder.
- Although Attention Deficit Hyperactivity Disorder tends to run in families with evidence of high heritability, the predominant symptom pattern in Attention Deficit

Hyperactivity Disorder in a given individual often changes over time and cannot be predicted based on the predominant symptoms of other family members.

Boundary with Normality (Threshold):

- Inattention, hyperactivity and impulsivity symptoms are present in many children, adolescents and adults, especially during certain developmental periods (e.g., early childhood). The diagnosis of Attention Deficit Hyperactivity Disorder requires that these symptoms be persistent across time, pervasive across situations, significantly out of keeping with developmental level, and have a direct negative impact on academic, occupational, or social functioning.

Course Features:

- Nearly half of all children diagnosed with Attention Deficit Hyperactivity Disorder will continue to exhibit symptoms into adolescence. Predictors of persistence into adolescence and adulthood include: co-occurring childhood onset Mental, Behavioural or Neurodevelopmental Disorders, lower intellectual functioning, poorer social functioning, and behavioural problems.
- Attention Deficit Hyperactivity Disorder symptoms tend to remain stable throughout adolescence with approximately one third of individuals diagnosed in childhood continuing to experience impairment in adulthood.
- Although symptoms of hyperactivity become less overt during adolescence and adulthood, individuals may still experience difficulties with inattention, impulsivity, and restlessness.

Developmental Presentations:

- Adolescents and adults may only seek clinical services after age 12 once symptoms become more limiting with increasing social, emotional, and academic demands or in the context of an evolving co-occurring Mental, Behavioural, or Neurodevelopmental Disorders that results in an exacerbation of Attention Deficit Hyperactivity Disorder symptoms.

Culture-Related Features:

- The symptoms of Attention Deficit Hyperactivity Disorder consistently fall into two separate dimensions across cultures: inattention and hyperactivity/impulsivity. However, culture can influence acceptability of symptoms as well as how caregivers respond to them.
- The assessment of hyperactivity should take into account cultural norms of age and gender-appropriate behaviour. For example, in some countries hyperactive behaviour may be seen as a sign of strength in a boy (e.g., 'boiling blood') while being perceived very negatively in a girl.
- Symptoms of inattention or hyperactivity/impulsivity may occur in response to exposure to traumatic events and grief reactions during childhood particularly in

highly vulnerable and disadvantaged populations, including in post-conflict areas. In these settings, clinicians should consider whether the diagnosis of Attention Deficit Hyperactivity Disorder is warranted.

Sex- and/or Gender-Related Features:

- Attention Deficit Hyperactivity Disorder is more common in males.
- Females are more likely to exhibit inattentive symptoms whereas males are more likely to exhibit symptoms of hyperactivity and impulsivity particularly at younger ages.

Boundaries with Other Disorders and Conditions (Differential Diagnosis):

- **Boundary with Disorders of Intellectual Development:** Co-occurrence of Attention Deficit Hyperactivity Disorder and Disorders of Intellectual Development is common, and both diagnoses may be assigned if warranted. However, symptoms of inattention and hyperactivity (e.g., restlessness) are common in children without Attention Deficit Hyperactivity Disorder who are placed in academic settings that are out of keeping with their intellectual abilities. A diagnosis of Attention Deficit Hyperactivity Disorder in individuals with Disorders of Intellectual Development requires that Attention Deficit Hyperactivity Disorder symptoms are disproportionate to the individual's level of intellectual functioning.
- **Boundary with Autism Spectrum Disorder:** Specific abnormalities in attention (e.g., being overly focused or easily distracted), impulsivity, and physical hyperactivity are often observed in individuals with Autism Spectrum Disorder and may sometimes dominate the clinical presentation. Unlike individuals with Autism Spectrum Disorder, those with Attention Deficit Hyperactivity Disorder do not exhibit the persistent deficits in initiating and sustaining social communication and reciprocal social interactions or the persistent restricted, repetitive, and inflexible patterns of behaviour, interests, or activities that are the defining features of Autism Spectrum Disorder. However, Co-occurrence of these disorders is common.
- **Boundary with Developmental Learning Disorder:** Individuals with Developmental Learning Disorder without Attention Deficit Hyperactivity Disorder may exhibit symptoms of inattention and hyperactivity when asked to focus on specific academic activities that correspond to their areas of difficulty (i.e., reading, mathematics, or writing). If difficulty in sustaining attention on academic tasks or appropriately modulating activity level occurs only in response to these tasks and there is evidence of limitations in acquisition of academic skills in the specific corresponding area, a diagnosis of Developmental Learning Disorder and not Attention Deficit Hyperactivity Disorder should be assigned.
- **Boundary with Developmental Motor Coordination Disorder:** Co-occurrence of Attention Deficit Hyperactivity Disorder and Developmental Motor Coordination Disorder is common, and both diagnoses may be assigned if warranted. However, apparent clumsiness in some individuals with Attention Deficit Hyperactivity Disorder (e.g., bumping into obstacles, knocking things over) that is due to distractibility and

impulsiveness should not be diagnosed as Developmental Motor Coordination Disorder.

- **Boundary with Mood Disorders and Anxiety or Fear-Related Disorders:** Attention Deficit Hyperactivity Disorder can co-occur with Mood Disorders and Anxiety or Fear-Related Disorders, but inattention, hyperactivity, and impulsivity can also be features of these disorders in individuals without Attention Deficit Hyperactivity Disorder. For example, symptoms such as restlessness, pacing, and impaired concentration can be features of a Depressive Episode, and should not be considered as part of the diagnosis of Attention Deficit Hyperactivity Disorder unless they have been present since childhood and persist after the resolution of the Depressive Episode. Inattention, impulsivity, and hyperactivity are typical features of Manic and Hypomanic Episodes. At the same time, mood lability and irritability may be associated features of Attention Deficit Hyperactivity Disorder. Late adolescent or adult onset, episodicity, and intensity of mood elevation characteristic of Bipolar Disorders are features that assist in differentiation from Attention Deficit Hyperactivity Disorder. Fidgeting, restlessness, and tension in the context of Anxiety or Fear-Related Disorders may resemble hyperactivity. Furthermore, anxious preoccupations or reaction to anxiety-provoking stimuli in individuals with Anxiety or Fear-Related Disorders can be associated with difficulties concentrating. To qualify for an Attention Deficit Hyperactivity Disorder diagnosis in the presence of a Mood Disorder or Anxiety or Fear-Related Disorder, inattention and/or hyperactivity should not be exclusively associated with Mood Episodes, be solely attributable to anxious preoccupations, or occur specifically in response to anxiety-provoking situations.
- **Boundary with Intermittent Explosive Disorder:** Attention Deficit Hyperactivity Disorder and Intermittent Explosive Disorder are both characterized by impulsive behaviour. However, Intermittent Explosive Disorder is specifically characterized by intermittent severe impulsive outbursts or aggression rather than ongoing generalized behavioural impulsivity that may be seen in Attention Deficit Hyperactivity Disorder.
- **Boundary with Oppositional Defiant Disorder:** Individuals with Attention Deficit Hyperactivity Disorder often have difficulty following instructions, complying with rules, and getting along with others, but these difficulties are primarily accounted for by symptoms of inattention and/or hyperactivity-impulsivity (e.g., failure to follow long and complicated instructions, difficulty remaining seated or staying on task). In contrast, noncompliance in individuals with Oppositional Defiant Disorder is characterized by deliberate defiance or disobedience and not by problems with inattention or with controlling behavioural impulses or inhibiting inappropriate behaviours. However, Co-occurrence of these disorders is common.
- **Boundary with Conduct Dissocial Disorder:** In adolescents and adults with Attention Deficit Hyperactivity Disorder, some behaviours that are manifestations of impulsivity such as grabbing objects, reckless driving, or impulsive decision making such as suddenly walking out of jobs or relationships may bring the individual in conflict with other people and the law. In contrast, individuals with Conduct Dissocial Disorder typically lack the symptoms of inattention and hyperactivity and exhibit a repetitive and persistent pattern of behaviour in which the basic rights of others or

major age-appropriate societal norms, rules, or laws are violated. However, Co-occurrence of these disorders is common.

- **Boundary with Personality Disorder:** Individuals with Attention Deficit Hyperactivity Disorder often experience problems with psychosocial functioning and interpersonal relationships, including regulation of emotions and negative emotionality. If Attention Deficit Hyperactivity Disorder persists into adolescence and adulthood, it may be difficult to distinguish from Personality Disorder with prominent personality features of Disinhibition, which includes irresponsibility, impulsivity, distractibility, and recklessness, and Negative Emotionality, which refers to a habitual tendency to manifest a broad range of distressing emotions including anxiety, anger, self-loathing, irritability, and increased sensitivity to negative stimuli. The utility of assigning an additional diagnosis of Personality Disorder in situations where there is an established diagnosis of Attention Deficit Hyperactivity Disorder depends on the specific clinical situation.
- **Boundary with Disorders Due to Substance Use and the effects of certain prescribed medications:** Abuse of alcohol, nicotine, cannabis and stimulants is common among individuals with Attention Deficit Hyperactivity Disorder, particularly adolescents and adults. However, the effects of these substances can also mimic the symptoms of Attention Deficit Hyperactivity Disorder in individuals without the diagnosis. Symptoms of inattention, hyperactivity, or impulsivity are also associated with the effects of certain prescribed medications (e.g., anticonvulsants such as carbamazepine and valproate, antipsychotics such as risperidone, and somatic treatments such as bronchodilators and thyroid replacement medication). The temporal order of onset and the persistence of inattention, hyperactivity and impulsivity in the absence of intoxication or continued medication use are important in differentiating between Attention Deficit Hyperactivity Disorder and Disorders Due to Substance Use or the effects of prescribed medications. A review of current medications and informants who knew the individual before they started using the substances or medications in question are critical in making this distinction.
- **Boundary with attentional symptoms due to other medical conditions:** A variety of other medical conditions may influence attentional processes (e.g., hypoglycemia, hyperthyroidism or hypothyroidism, exposure to toxins, Sleep-Wake Disorders), resulting in temporary or persistent symptoms that resemble or interact with those of Attention Deficit Hyperactivity Disorder. As a basis for appropriate management, it is important to evaluate in such cases whether the symptoms are secondary to the medical condition or are more indicative of comorbid Attention Deficit Hyperactivity Disorder.