Hallucinogen Persisting Perception Disorder

Diagnostic Criteria **292.89 (F16.983)**

A. Following cessation of use of a hallucinogen, the reexperiencing of one or more of the perceptual symptoms that were experienced while intoxicated with the hallucinogen (e.g., geometric hallucinations, false perceptions of movement in the peripheral visual fields, flashes of color, intensified colors, trails of images of moving objects, positive afterimages, halos around objects, macropsia and micropsia).
B. The symptoms in Criterion A cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
C. The symptoms are not attributable to another medical condition (e.g., anatomical lesions and infections of the brain, visual epilepsies) and are not better explained by another mental disorder (e.g., delirium, major neurocognitive disorder, schizophrenia) or hypnopompic hallucinations.

Diagnostic Features

The hallmark of hallucinogen persisting perception disorder is the reexperiencing, when the individual is sober, of the perceptual disturbances that were experienced while the individual was intoxicated with the hallucinogen (Criterion A). The symptoms may include any perceptual perturbations, but visual disturbances tend to be predominant. Typical of the abnormal visual perceptions are geometric hallucinations, false perceptions of movement in the peripheral visual fields, flashes of color, intensified colors, trails of images of moving objects (i.e., images left suspended in the path of a moving object as seen in stroboscopic photography), perceptions of entire objects, positive afterimages (i.e., a same-colored or complementary-colored "shadow" of an object remaining after removal of the object), halos around objects, or misperception of images as too large (macropsia) or too small (micropsia). Duration of the visual disturbances may be episodic or nearly continuous and must cause clinically significant distress or impairment in social, occupational, or other important areas of functioning (Criterion B). The disturbances may last for weeks, months, or years. Other explanations for the disturbances (e.g., brain lesions, preexisting psychosis, seizure disorders, migraine aura without headaches) must be ruled out (Criterion C).

Hallucinogen persisting perception disorder occurs primarily after LSD (lysergic acid diethylamide) use, but not exclusively. There does not appear to be a strong correlation between hallucinogen persisting perception disorder and number of occasions of hallucinogen use, with some instances of hallucinogen persisting perception disorder occurring in individuals with minimal exposure to hallucinogens. Some instances of hallucinogen persisting perception disorder may be triggered by use of other substances (e.g., cannabis or alcohol) or in adaptation to dark environments.

Associated Features Supporting Diagnosis

Reality testing remains intact in individuals with hallucinogen persisting perception disorder (i.e., the individual is aware that the disturbance is linked to the effect of the drug). If this is not the case, another disorder might better explain the abnormal perceptions.

Prevalence

Prevalence estimates of hallucinogen persisting perception disorder are unknown. Initial prevalence estimates of the disorder among individuals who use hallucinogens is approximately 4.2%.

Development and Course

Little is known about the development of hallucinogen persisting perception disorder. Its course, as suggested by its name, is persistent, lasting for weeks, months, or even years in certain individuals.

Risk and Prognostic Factors

There is little evidence regarding risk factors for hallucinogen persisting perception disorder, although genetic factors have been suggested as a possible explanation underlying the susceptibility to LSD effects in this condition.

Functional Consequences of Hallucinogen Persisting Perception Disorder

Although hallucinogen persisting perception disorder remains a chronic condition in some cases, many individuals with the disorder are able to suppress the disturbances and continue to function normally.

Differential Diagnosis

Conditions to be ruled out include schizophrenia, other drug effects, neurodegenerative disorders, stroke, brain tumors, infections, and head trauma. Neuroimaging results in hallucinogen persisting perception disorder cases are typically negative. As noted earlier, reality testing remains intact (i.e., the individual is aware that the disturbance is linked to the effect of the drug); if this is not the case, another disorder (e.g., psychotic disorder, another medical condition) might better explain the abnormal perceptions.

Comorbidity

Common comorbid mental disorders accompanying hallucinogen persisting perception disorder are panic disorder, alcohol use disorder, and major depressive disorder.

Other Phencyclidine-Induced Disorders

Other phencyclidine-induced disorders are described in other chapters of the manual with disorders with which they share phenomenology (see the substance/medication-induced mental disorders in these chapters): phencyclidine-induced psychotic disorder ("Schizophrenia Spectrum and Other Psychotic Disorders"); phencyclidine-induced bipolar disorder ("Bipolar and Related Disorders"); phencyclidine-induced depressive disorder ("Depressive Disorders"); and phencyclidine-induced anxiety disorder ("Anxiety Disorders"). For phencyclidine-induced intoxication delirium, see the criteria and discussion of delirium in the chapter "Neurocognitive Disorders." These phencyclidine-induced disorders are diagnosed instead of phencyclidine intoxication only when the symptoms are sufficiently severe to warrant independent clinical attention.

Other Hallucinogen-Induced Disorders

The following other hallucinogen-induced disorders are described in other chapters of the manual with disorders with which they share phenomenology (see the substance/medication-induced mental disorders in these chapters): other hallucinogen–induced psychotic disorder ("Schizophrenia Spectrum and Other Psychotic Disorders"); other hallucinogen–induced bipolar disorder ("Bipolar and Related Disorders"); other hallucinogen–induced

depressive disorder ("Depressive Disorders"); and other hallucinogen–induced anxiety disorder ("Anxiety Disorders"). For other hallucinogen intoxication delirium, see the criteria and discussion of delirium in the chapter "Neurocognitive Disorders." These hallucinogen-induced disorders are diagnosed instead of other hallucinogen intoxication only when the symptoms are sufficiently severe to warrant independent clinical attention.

Unspecified Phencyclidine-Related Disorder

292.9 (F16.99)

This category applies to presentations in which symptoms characteristic of a phencyclidine-related disorder that cause clinically significant distress or impairment in social, occupational, or other important areas of functioning predominate but do not meet the full criteria for any specific phencyclidine-related disorder or any of the disorders in the substance-related and addictive disorders diagnostic class.

Unspecified Hallucinogen-Related Disorder

292.9 (F16.99)

This category applies to presentations in which symptoms characteristic of a hallucinogen-related disorder that cause clinically significant distress or impairment in social, occupational, or other important areas of functioning predominate but do not meet the full criteria for any specific hallucinogen-related disorder or any of the disorders in the substance-related and addictive disorders diagnostic class.

Inhalant-Related Disorders

Inhalant Use Disorder
Inhalant Intoxication
Other Inhalant-Induced Disorders
Unspecified Inhalant-Related Disorder

Inhalant Use Disorder

Diagnostic Criteria

A. A problematic pattern of use of a hydrocarbon-based inhalant substance leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:

1. The inhalant substance is often taken in larger amounts or over a longer period than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control use of the inhalant substance.

3. A great deal of time is spent in activities necessary to obtain the inhalant substance, use it, or recover from its effects.
4. Craving, or a strong desire or urge to use the inhalant substance.
5. Recurrent use of the inhalant substance resulting in a failure to fulfill major role obligations at work, school, or home.
6. Continued use of the inhalant substance despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of its use.
7. Important social, occupational, or recreational activities are given up or reduced because of use of the inhalant substance.
8. Recurrent use of the inhalant substance in situations in which it is physically hazardous.
9. Use of the inhalant substance is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.
10. Tolerance, as defined by either of the following:
    a. A need for markedly increased amounts of the inhalant substance to achieve intoxication or desired effect.
    b. A markedly diminished effect with continued use of the same amount of the inhalant substance.

Specify **the particular inhalant:** When possible, the particular substance involved should be named (e.g., "solvent use disorder").

Specify if:

In early remission: After full criteria for inhalant use disorder were previously met, none of the criteria for inhalant use disorder have been met for at least 3 months but for less than 12 months (with the exception that Criterion A4, "Craving, or a strong desire or urge to use the inhalant substance," may be met).

In sustained remission: After full criteria for inhalant use disorder were previously met, none of the criteria for inhalant use disorder have been met at any time during a period of 12 months or longer (with the exception that Criterion A4, "Craving, or a strong desire or urge to use the inhalant substance," may be met).

Specify if:

In a controlled environment: This additional specifier is used if the individual is in an environment where access to inhalant substances is restricted.

Coding based on current severity: Note for ICD-10-CM codes: If an inhalant intoxication or another inhalant-induced mental disorder is also present, do not use the codes below for inhalant use disorder. Instead, the comorbid inhalant use disorder is indicated in the 4th character of the inhalant-induced disorder code (see the coding note for inhalant intoxication or a specific inhalant-induced mental disorder). For example, if there is comorbid inhalant-induced depressive disorder and inhalant use disorder, only the inhalant-induced depressive disorder code is given, with the 4th character indicating whether the comorbid inhalant use disorder is mild, moderate, or severe: F18.14 for mild inhalant use disorder with inhalant-induced depressive disorder or F18.24 for a moderate or severe inhalant use disorder with inhalant-induced depressive disorder.

Specify current severity:

305.90 (F18.10) Mild: Presence of 2–3 symptoms.

304.60 (F18.20) Moderate: Presence of 4–5 symptoms.

304.60 (F18.20) Severe: Presence of 6 or more symptoms.

Specifiers

This manual recognizes volatile hydrocarbon use meeting the above diagnostic criteria as inhalant use disorder. Volatile hydrocarbons are toxic gases from glues, fuels, paints, and other volatile compounds. When possible, the particular substance involved should be named (e.g., "toluene use disorder"). However, most compounds that are inhaled are a mixture of several substances that can produce psychoactive effects, and it is often difficult to ascertain the exact substance responsible for the disorder. Unless there is clear evidence that a single, unmixed substance has been used, the general term inhalant should be used in recording the diagnosis. Disorders arising from inhalation of nitrous oxide or of amyl-, butyl-, or isobutylnitrite are considered as other (or unknown) substance use disorder.

"In a controlled environment" applies as a further specifier of remission if the individual is both in remission and in a controlled environment (i.e., in early remission in a controlled environment or in sustained remission in a controlled environment). Examples of these environments are closely supervised and substance-free jails, therapeutic communities, and locked hospital units.

The severity of individuals' inhalant use disorder is assessed by the number of diagnostic criteria endorsed. Changing severity of individuals' inhalant use disorder across time is reflected by reductions in the frequency (e.g., days used per month) and/or dose (e.g., tubes of glue per day) used, as assessed by the individual's self-report, report of others, clinician's observations, and biological testing (when practical).

Diagnostic Features

Features of inhalant use disorder include repeated use of an inhalant substance despite the individual's knowing that the substance is causing serious problems for the individual (Criterion A9). Those problems are reflected in the diagnostic criteria.

Missing work or school or inability to perform typical responsibilities at work or school (Criterion A5), and continued use of the inhalant substance even though it causes arguments with family or friends, fights, and other social or interpersonal problems (Criterion A6), may be seen in inhalant use disorder. Limiting family contact, work or school obligations, or recreational activities (e.g., sports, games, hobbies) may also occur (Criterion A7). Use of inhalants when driving or operating dangerous equipment (Criterion A8) is also seen.

Tolerance (Criterion A10) and mild withdrawal are each reported by about 10% of individuals who use inhalants, and a few individuals use inhalants to avoid withdrawal. However, because the withdrawal symptoms are mild, this manual neither recognizes a diagnosis of inhalant withdrawal nor counts withdrawal complaints as a diagnostic criterion for inhalant use disorder.

Associated Features Supporting Diagnosis

A diagnosis of inhalant use disorder is supported by recurring episodes of intoxication with negative results in standard drug screens (which do not detect inhalants); possession, or lingering odors, of inhalant substances; peri-oral or peri-nasal "glue-sniffer's rash"; association with other individuals known to use inhalants; membership in groups with prevalent inhalant use (e.g., some native or aboriginal communities, homeless children in street gangs); easy access to certain inhalant substances; paraphernalia possession; presence of the disorder's characteristic medical complications (e.g., brain white matter pathology, rhabdomyolysis); and the presence of multiple substance use disorders. Inhalant use and inhalant use disorder are associated with past suicide attempts, especially among adults reporting previous episodes of low mood or anhedonia.

Prevalence

About 0.4% of Americans ages 12–17 years have a pattern of use that meets criteria for inhalant use disorder in the past 12 months. Among those youths, the prevalence is highest

in Native Americans and lowest in African Americans. Prevalence falls to about 0.1% among Americans ages 18–29 years, and only 0.02% when all Americans 18 years or older are considered, with almost no females and a preponderance of European Americans. Of course, in isolated subgroups, prevalence may differ considerably from these overall rates.

Development and Course

About 10% of 13-year-old American children report having used inhalants at least once; that percentage remains stable through age 17 years. Among those 12- to 17-year-olds who use inhalants, the more-used substances include glue, shoe polish, or toluene; gasoline or lighter fluid; or spray paints.

Only 0.4% of 12- to 17-year-olds progress to inhalant use disorder; those youths tend to exhibit multiple other problems. The declining prevalence of inhalant use disorder after adolescence indicates that this disorder usually remits in early adulthood.

Volatile hydrocarbon use disorder is rare in prepubertal children, most common in adolescents and young adults, and uncommon in older persons. Calls to poison-control centers for "intentional abuse" of inhalants peak with calls involving individuals at age 14 years. Of adolescents who use inhalants, perhaps one-fifth develop inhalant use disorder; a few die from inhalant-related accidents, or "sudden sniffing death". But the disorder apparently remits in many individuals after adolescence. Prevalence declines dramatically among individuals in their 20s. Those with inhalant use disorder extending into adulthood often have severe problems: substance use disorders, antisocial personality disorder, and suicidal ideation with attempts.

Risk and Prognostic Factors

Temperamental. Predictors of progression from nonuse of inhalants, to use, to inhalant use disorder include comorbid non-inhalant substance use disorders and either conduct disorder or antisocial personality disorder. Other predictors are earlier onset of inhalant use and prior use of mental health services.

Environmental. Inhalant gases are widely and legally available, increasing the risk of misuse. Childhood maltreatment or trauma also is associated with youthful progression from inhalant non-use to inhalant use disorder.

Genetic and physiological. *Behavioral disinhibition* is a highly heritable general propensity to not constrain behavior in socially acceptable ways, to break social norms and rules, and to take dangerous risks, pursuing rewards excessively despite dangers of adverse consequences. Youths with strong behavioral disinhibition show risk factors for inhalant use disorder: early-onset substance use disorder, multiple substance involvement, and early conduct problems. Because behavioral disinhibition is under strong genetic influence, youths in families with substance and antisocial problems are at elevated risk for inhalant use disorder.

Culture-Related Diagnostic Issues

Certain native or aboriginal communities have experienced a high prevalence of inhalant problems. Also, in some countries, groups of homeless children in street gangs have extensive inhalant use problems.

Gender-Related Diagnostic Issues

Although the prevalence of inhalant use disorder is almost identical in adolescent males and females, the disorder is very rare among adult females.

Diagnostic Markers

Urine, breath, or saliva tests may be valuable for assessing concurrent use of non-inhalant substances by individuals with inhalant use disorder. However, technical problems and

the considerable expense of analyses make frequent biological testing for inhalants themselves impractical.

Functional Consequences of Inhalant Use Disorder

Because of inherent toxicity, use of butane or propane is not infrequently fatal. Moreover, any inhaled volatile hydrocarbons may produce "sudden sniffing death" from cardiac arrhythmia. Fatalities may occur even on the first inhalant exposure and are not thought to be dose-related. Volatile hydrocarbon use impairs neurobehavioral function and causes various neurological, gastrointestinal, cardiovascular, and pulmonary problems.

Long-term inhalant users are at increased risk for tuberculosis, HIV/AIDS, sexually transmitted diseases, depression, anxiety, bronchitis, asthma, and sinusitis. Deaths may occur from respiratory depression, arrhythmias, asphyxiation, aspiration of vomitus, or accident and injury.

Differential Diagnosis

Inhalant exposure (unintentional) from industrial or other accidents. This designation is used when findings suggest repeated or continuous inhalant exposure but the involved individual and other informants deny any history of purposeful inhalant use.

Inhalant use (intentional), without meeting criteria for inhalant use disorder. Inhalant use is common among adolescents, but for most of those individuals, the inhalant use does not meet the diagnostic standard of two or more Criterion A items for inhalant use disorder in the past year.

Inhalant intoxication, without meeting criteria for inhalant use disorder. Inhalant intoxication occurs frequently during inhalant use disorder but also may occur among individuals whose use does not meet criteria for inhalant use disorder, which requires at least two of the 10 diagnostic criteria in the past year.

Inhalant-induced disorders (i.e., inhalant-induced psychotic disorder, depressive disorder, anxiety disorder, neurocognitive disorder, other inhalant-induced disorders) without meeting criteria for inhalant use disorder. Criteria are met for a psychotic, depressive, anxiety, or major neurocognitive disorder, and there is evidence from history, physical examination, or laboratory findings that the deficits are etiologically related to the effects of inhalant substances. Yet, criteria for inhalant use disorder may not be met (i.e., fewer than 2 of the 10 criteria were present).

Other substance use disorders, especially those involving sedating substances (e.g., alcohol, benzodiazepines, barbiturates). Inhalant use disorder commonly co-occurs with other substance use disorders, and the symptoms of the disorders may be similar and overlapping. To disentangle symptom patterns, it is helpful to inquire about which symptoms persisted during periods when some of the substances were not being used.

Other toxic, metabolic, traumatic, neoplastic, or infectious disorders impairing central or peripheral nervous system function. Individuals with inhalant use disorder may present with symptoms of pernicious anemia, subacute combined degeneration of the spinal cord, psychosis, major or minor cognitive disorder, brain atrophy, leukoencephalopathy, and many other nervous system disorders. Of course, these disorders also may occur in the absence of inhalant use disorder. A history of little or no inhalant use helps to exclude inhalant use disorder as the source of these problems.

Disorders of other organ systems. Individuals with inhalant use disorder may present with symptoms of hepatic or renal damage, rhabdomyolysis, methemoglobinemia, or symptoms of other gastrointestinal, cardiovascular, or pulmonary diseases. A history of little or no inhalant use helps to exclude inhalant use disorder as the source of such medical problems.

Comorbidity

Individuals with inhalant use disorder receiving clinical care often have numerous other substance use disorders. Inhalant use disorder commonly co-occurs with adolescent conduct disorder and adult antisocial personality disorder. Adult inhalant use and inhalant use disorder also are strongly associated with suicidal ideation and suicide attempts.

Inhalant Intoxication

Diagnostic Criteria

A. Recent intended or unintended short-term, high-dose exposure to inhalant substances, including volatile hydrocarbons such as toluene or gasoline.

B. Clinically significant problematic behavioral or psychological changes (e.g., belligerence, assaultiveness, apathy, impaired judgment) that developed during, or shortly after, exposure to inhalants.

C. Two (or more) of the following signs or symptoms developing during, or shortly after, inhalant use or exposure:

1. Dizziness.
2. Nystagmus.
3. Incoordination.
4. Slurred speech.
5. Unsteady gait.
6. Lethargy.
7. Depressed reflexes.
8. Psychomotor retardation.
9. Tremor.
10. Generalized muscle weakness.
11. Blurred vision or diplopia.
12. Stupor or coma.
13. Euphoria.

D. The signs or symptoms are not attributable to another medical condition and are not better explained by another mental disorder, including intoxication with another substance.

Coding note: The ICD-9-CM code is **292.89.** The ICD-10-CM code depends on whether there is a comorbid inhalant use disorder. If a mild inhalant use disorder is comorbid, the ICD-10-CM code is **F18.129,** and if a moderate or severe inhalant use disorder is comorbid, the ICD-10-CM code is **F18.229.** If there is no comorbid inhalant use disorder, then the ICD-10-CM code is **F18.929.**

Note: For information on Development and Course, Risk and Prognostic Factors, Culture-Related Diagnostic Issues, and Diagnostic Markers, see the corresponding sections in inhalant use disorder.

Diagnostic Features

Inhalant intoxication is an inhalant-related, clinically significant mental disorder that develops during, or immediately after, intended or unintended inhalation of a volatile hydrocarbon substance. Volatile hydrocarbons are toxic gases from glues, fuels, paints, and other volatile compounds. When it is possible to do so, the particular substance involved should be named (e.g., toluene intoxication). Among those who do, the intoxication clears within a few minutes to a few hours after the exposure ends. Thus, inhalant intoxication usually occurs in brief episodes that may recur.

Associated Features Supporting Diagnosis

Inhalant intoxication may be indicated by evidence of possession, or lingering odors, of inhalant substances (e.g., glue, paint thinner, gasoline, butane lighters); apparent intoxication occurring in the age range with the highest prevalence of inhalant use (12–17 years); and apparent intoxication with negative results from the standard drug screens that usually fail to identify inhalants.

Prevalence

The prevalence of actual episodes of inhalant intoxication in the general population is unknown, but it is probable that most inhalant users would at some time exhibit use that would meet criteria for inhalant intoxication disorder. Therefore, the prevalence of inhalant use and the prevalence of inhalant intoxication disorder are likely similar. In 2009 and 2010, inhalant use in the past year was reported by 0.8% of all Americans older than 12 years; the prevalence was highest in younger age groups (3.6% for individuals 12 to 17 years old, and 1.7% for individuals 18 to 25 years old).

Gender-Related Diagnostic Issues

Gender differences in the prevalence of inhalant intoxication in the general population are unknown. However, if it is assumed that most inhalant users eventually experience inhalant intoxication, gender differences in the prevalence of inhalant *users* likely approximate those in the proportions of males and females experiencing inhalant intoxication. Regarding gender differences in the prevalence of inhalant users in the United States, 1% of males older than 12 years and 0.7% of females older than 12 years have used inhalants in the previous year, but in the younger age groups more females than males have used inhalants (e.g., among 12- to 17-year-olds, 3.6% of males and 4.2% of females).

Functional Consequences of Inhalant Intoxication

Use of inhaled substances in a closed container, such as a plastic bag over the head, may lead to unconsciousness, anoxia, and death. Separately, "sudden sniffing death," likely from cardiac arrhythmia or arrest, may occur with various volatile inhalants. The enhanced toxicity of certain volatile inhalants, such as butane or propane, also causes fatalities. Although inhalant intoxication itself is of short duration, it may produce persisting medical and neurological problems, especially if the intoxications are frequent.

Differential Diagnosis

Inhalant exposure, without meeting the criteria for inhalant intoxication disorder. The individual intentionally or unintentionally inhaled substances, but the dose was insufficient for the diagnostic criteria for inhalant use disorder to be met.

Intoxication and other substance/medication-induced disorders from other substances, especially from sedating substances (e.g., alcohol, benzodiazepines, barbiturates). These disorders may have similar signs and symptoms, but the intoxication is attributable to other intoxicants that may be identified via a toxicology screen. Differentiating the source of the intoxication may involve discerning evidence of inhalant exposure as described for inhalant use disorder. A diagnosis of inhalant intoxication may be suggested by possession, or lingering odors, of inhalant substances (e.g., glue, paint thinner, gasoline, butane lighters,); paraphernalia possession (e.g., rags or bags for concentrating glue fumes); perioral or perinasal "glue-sniffer's rash"; reports from family or friends that the intoxicated individual possesses or uses inhalants; apparent intoxication despite negative results on standard drug screens (which usually fail to identify inhalants); apparent intoxication occurring in that age range with the highest prevalence of inhalant use (12–17

years); association with others known to use inhalants; membership in certain small communities with prevalent inhalant use (e.g., some native or aboriginal communities, homeless street children and adolescents); or unusual access to certain inhalant substances.

Other inhalant-related disorders. Episodes of inhalant intoxication do occur during, but are not identical with, other inhalant-related disorders. Those inhalant-related disorders are recognized by their respective diagnostic criteria: inhalant use disorder, inhalant-induced neurocognitive disorder, inhalant-induced psychotic disorder, inhalant-induced depressive disorder, inhalant-induced anxiety disorder, and other inhalant-induced disorders.

Other toxic, metabolic, traumatic, neoplastic, or infectious disorders that impair brain function and cognition. Numerous neurological and other medical conditions may produce the clinically significant behavioral or psychological changes (e.g., belligerence, assaultiveness, apathy, impaired judgment) that also characterize inhalant intoxication.

Other Inhalant-Induced Disorders

The following inhalant-induced disorders are described in other chapters of the manual with disorders with which they share phenomenology (see the substance/medication-induced mental disorders in these chapters): inhalant-induced psychotic disorder ("Schizophrenia Spectrum and Other Psychotic Disorders"); inhalant-induced depressive disorder ("Depressive Disorders"); inhalant-induced anxiety disorder ("Anxiety Disorders"); and inhalant-induced major or mild neurocognitive disorder ("Neurocognitive Disorders"). For inhalant intoxication delirium, see the criteria and discussion of delirium in the chapter "Neurocognitive Disorders." These inhalant-induced disorders are diagnosed instead of inhalant intoxication only when symptoms are sufficiently severe to warrant independent clinical attention.

Unspecified Inhalant-Related Disorder

292.9 (F18.99)

This category applies to presentations in which symptoms characteristic of an inhalant-related disorder that cause clinically significant distress or impairment in social, occupational, or other important areas of functioning predominate but do not meet the full criteria for any specific inhalant-related disorder or any of the disorders in the substance-related and addictive disorders diagnostic class.

Opioid-Related Disorders

Opioid Use Disorder
Opioid Intoxication
Opioid Withdrawal
Other Opioid-Induced Disorders
Unspecified Opioid-Related Disorder

Opioid Use Disorder

Diagnostic Criteria

A. A problematic pattern of opioid use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:

1. Opioids are often taken in larger amounts or over a longer period than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control opioid use.
3. A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects.
4. Craving, or a strong desire or urge to use opioids.
5. Recurrent opioid use resulting in a failure to fulfill major role obligations at work, school, or home.
6. Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids.
7. Important social, occupational, or recreational activities are given up or reduced because of opioid use.
8. Recurrent opioid use in situations in which it is physically hazardous.
9. Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.
10. Tolerance, as defined by either of the following:
    a. A need for markedly increased amounts of opioids to achieve intoxication or desired effect.
    b. A markedly diminished effect with continued use of the same amount of an opioid.

    Note: This criterion is not considered to be met for those taking opioids solely under appropriate medical supervision.
11. Withdrawal, as manifested by either of the following:
    a. The characteristic opioid withdrawal syndrome (refer to Criteria A and B of the criteria set for opioid withdrawal, pp. 547–548).
    b. Opioids (or a closely related substance) are taken to relieve or avoid withdrawal symptoms.

    Note: This criterion is not considered to be met for those individuals taking opioids solely under appropriate medical supervision.

Specify if:

In early remission: After full criteria for opioid use disorder were previously met, none of the criteria for opioid use disorder have been met for at least 3 months but for less than 12 months (with the exception that Criterion A4, "Craving, or a strong desire or urge to use opioids," may be met).

In sustained remission: After full criteria for opioid use disorder were previously met, none of the criteria for opioid use disorder have been met at any time during a period of 12 months or longer (with the exception that Criterion A4, "Craving, or a strong desire or urge to use opioids," may be met).

Specify if:

On maintenance therapy: This additional specifier is used if the individual is taking a prescribed agonist medication such as methadone or buprenorphine and none of the criteria for opioid use disorder have been met for that class of medication (except tolerance to, or withdrawal from, the agonist). This category also applies to those individ-

uals being maintained on a partial agonist, an agonist/antagonist, or a full antagonist such as oral naltrexone or depot naltrexone.

In a controlled environment: This additional specifier is used if the individual is in an environment where access to opioids is restricted.

Coding based on current severity: Note for ICD-10-CM codes: If an opioid intoxication, opioid withdrawal, or another opioid-induced mental disorder is also present, do not use the codes below for opioid use disorder. Instead, the comorbid opioid use disorder is indicated in the 4th character of the opioid-induced disorder code (see the coding note for opioid intoxication, opioid withdrawal, or a specific opioid-induced mental disorder). For example, if there is comorbid opioid-induced depressive disorder and opioid use disorder, only the opioid-induced depressive disorder code is given, with the 4th character indicating whether the comorbid opioid use disorder is mild, moderate, or severe: F11.14 for mild opioid use disorder with opioid-induced depressive disorder or F11.24 for a moderate or severe opioid use disorder with opioid-induced depressive disorder.

Specify current severity:

305.50 (F11.10) Mild: Presence of 2–3 symptoms.

304.00 (F11.20) Moderate: Presence of 4–5 symptoms.

304.00 (F11.20) Severe: Presence of 6 or more symptoms.

Specifiers

The "on maintenance therapy" specifier applies as a further specifier of remission if the individual is both in remission and receiving maintenance therapy. "In a controlled environment" applies as a further specifier of remission if the individual is both in remission and in a controlled environment (i.e., in early remission in a controlled environment or in sustained remission in a controlled environment). Examples of these environments are closely supervised and substance-free jails, therapeutic communities, and locked hospital units.

Changing severity across time in an individual is also reflected by reductions in the frequency (e.g., days of use per month) and/or dose (e.g., injections or number of pills) of an opioid, as assessed by the individual's self-report, report of knowledgeable others, clinician's observations, and biological testing.

Diagnostic Features

Opioid use disorder includes signs and symptoms that reflect compulsive, prolonged self-administration of opioid substances that are used for no legitimate medical purpose or, if another medical condition is present that requires opioid treatment, that are used in doses greatly in excess of the amount needed for that medical condition. (For example, an individual prescribed analgesic opioids for pain relief at adequate dosing will use significantly more than prescribed and not only because of persistent pain.) Individuals with opioid use disorder tend to develop such regular patterns of compulsive drug use that daily activities are planned around obtaining and administering opioids. Opioids are usually purchased on the illegal market but may also be obtained from physicians by falsifying or exaggerating general medical problems or by receiving simultaneous prescriptions from several physicians. Health care professionals with opioid use disorder will often obtain opioids by writing prescriptions for themselves or by diverting opioids that have been prescribed for patients or from pharmacy supplies. Most individuals with opioid use disorder have significant levels of tolerance and will experience withdrawal on abrupt discontinuation of opioid substances. Individuals with opioid use disorder often develop conditioned responses to drug-related stimuli (e.g., craving on seeing any heroin powder–like substance)—a phenomenon that occurs with most drugs that cause intense psychological changes. These responses probably contribute to relapse, are difficult to extinguish, and typically persist long after detoxification is completed.

Associated Features Supporting Diagnosis

Opioid use disorder can be associated with a history of drug-related crimes (e.g., possession or distribution of drugs, forgery, burglary, robbery, larceny, receiving stolen goods). Among health care professionals and individuals who have ready access to controlled substances, there is often a different pattern of illegal activities involving problems with state licensing boards, professional staffs of hospitals, or other administrative agencies. Marital difficulties (including divorce), unemployment, and irregular employment are often associated with opioid use disorder at all socioeconomic levels.

Prevalence

The 12-month prevalence of opioid use disorder is approximately 0.37% among adults age 18 years and older in the community population. This may be an underestimate because of the large number of incarcerated individuals with opioid use disorders. Rates are higher in males than in females (0.49% vs. 0.26%), with the male-to-female ratio typically being 1.5:1 for opioids other than heroin (i.e., available by prescription) and 3:1 for heroin. Female adolescents may have a higher likelihood of developing opioid use disorders. The prevalence decreases with age, with the prevalence highest (0.82%) among adults age 29 years or younger, and decreasing to 0.09% among adults age 65 years and older. Among adults, the prevalence of opioid use disorder is lower among African Americans at 0.18% and overrepresented among Native Americans at 1.25%. It is close to average among whites (0.38%), Asian or Pacific Islanders (0.35%), and Hispanics (0.39%).

Among individuals in the United States ages 12–17 years, the overall 12-month prevalence of opioid use disorder in the community population is approximately 1.0%, but the prevalence of heroin use disorder is less than 0.1%. By contrast, analgesic use disorder is prevalent in about 1.0% of those ages 12–17 years, speaking to the importance of opioid analgesics as a group of substances with significant health consequences.

The 12-month prevalence of problem opioid use in European countries in the community population ages 15–64 years is between 0.1% and 0.8%. The average prevalence of problem opioid use in the European Union and Norway is between 0.36% and 0.44%.

Development and Course

Opioid use disorder can begin at any age, but problems associated with opioid use are most commonly first observed in the late teens or early 20s. Once opioid use disorder develops, it usually continues over a period of many years, even though brief periods of abstinence are frequent. In treated populations, relapse following abstinence is common. Even though relapses do occur, and while some long-term mortality rates may be as high as 2% per year, about 20%–30% of individuals with opioid use disorder achieve long-term abstinence. An exception concerns that of military service personnel who became dependent on opioids in Vietnam; over 90% of this population who had been dependent on opioids during deployment in Vietnam achieved abstinence after they returned, but they experienced increased rates of alcohol or amphetamine use disorder as well as increased suicidality.

Increasing age is associated with a decrease in prevalence as a result of early mortality and the remission of symptoms after age 40 years (i.e., "maturing out"). However, many individuals continue have presentations that meet opioid use disorder criteria for decades.

Risk and Prognostic Factors

Genetic and physiological. The risk for opiate use disorder can be related to individual, family, peer, and social environmental factors, but within these domains, genetic factors play a particularly important role both directly and indirectly. For instance, impulsivity and novelty seeking are individual temperaments that relate to the propensity to develop

a substance use disorder but may themselves be genetically determined. Peer factors may relate to genetic predisposition in terms of how an individual selects his or her environment.

Culture-Related Diagnostic Issues

Despite small variations regarding individual criterion items, opioid use disorder diagnostic criteria perform equally well across most race/ethnicity groups. Individuals from ethnic minority populations living in economically deprived areas have been overrepresented among individuals with opioid use disorder. However, over time, opioid use disorder is seen more often among white middle-class individuals, especially females, suggesting that differences in use reflect the availability of opioid drugs and that other social factors may impact prevalence. Medical personnel who have ready access to opioids may be at increased risk for opioid use disorder.

Diagnostic Markers

Routine urine toxicology test results are often positive for opioid drugs in individuals with opioid use disorder. Urine test results remain positive for most opioids (e.g., heroin, morphine, codeine, oxycodone, propoxyphene) for 12–36 hours after administration. Fentanyl is not detected by standard urine tests but can be identified by more specialized procedures for several days. Methadone, buprenorphine (or buprenorphine/naloxone combination), and LAAM (L-alpha-acetylmethadol) have to be specifically tested for and will not cause a positive result on routine tests for opiates. They can be detected for several days up to more than 1 week. Laboratory evidence of the presence of other substances (e.g., cocaine, marijuana, alcohol, amphetamines, benzodiazepines) is common. Screening test results for hepatitis A, B, and C virus are positive in as many as 80%–90% of injection opioid users, either for hepatitis antigen (signifying active infection) or for hepatitis antibody (signifying past infection). HIV is prevalent in injection opioid users as well. Mildly elevated liver function test results are common, either as a result of resolving hepatitis or from toxic injury to the liver due to contaminants that have been mixed with the injected opioid. Subtle changes in cortisol secretion patterns and body temperature regulation have been observed for up to 6 months following opioid detoxification.

Suicide Risk

Similar to the risk generally observed for all substance use disorders, opioid use disorder is associated with a heightened risk for suicide attempts and completed suicides. Particularly notable are both accidental and deliberate opioid overdoses. Some suicide risk factors overlap with risk factors for an opioid use disorder. In addition, repeated opioid intoxication or withdrawal may be associated with severe depressions that, although temporary, can be intense enough to lead to suicide attempts and completed suicides. Available data suggest that nonfatal accidental opioid overdose (which is common) and attempted suicide are distinct clinically significant problems that should not be mistaken for each other.

Functional Consequences of Opioid Use Disorder

Opioid use is associated with a lack of mucous membrane secretions, causing dry mouth and nose. Slowing of gastrointestinal activity and a decrease in gut motility can produce severe constipation. Visual acuity may be impaired as a result of pupillary constriction with acute administration. In individuals who inject opioids, sclerosed veins (“tracks”) and puncture marks on the lower portions of the upper extremities are common. Veins sometimes become so severely sclerosed that peripheral edema develops, and individuals switch to injecting in veins in the legs, neck, or groin. When these veins become unusable, individuals often inject directly into their subcutaneous tissue (“skin-popping”), resulting

in cellulitis, abscesses, and circular-appearing scars from healed skin lesions. Tetanus and *Clostridium botulinum* infections are relatively rare but extremely serious consequences of injecting opioids, especially with contaminated needles. Infections may also occur in other organs and include bacterial endocarditis, hepatitis, and HIV infection. Hepatitis C infections, for example, may occur in up to 90% of persons who inject opioids. In addition, the prevalence of HIV infection can be high among individuals who inject drugs, a large proportion of whom are individuals with opioid use disorder. HIV infection rates have been reported to be as high as 60% among heroin users with opioid use disorder in some areas of the United States or the Russian Federation. However, the incidence may also be 10% or less in other areas, especially those where access to clean injection material and paraphernalia is facilitated.

Tuberculosis is a particularly serious problem among individuals who use drugs intravenously, especially those who are dependent on heroin; infection is usually asymptomatic and evident only by the presence of a positive tuberculin skin test. However, many cases of active tuberculosis have been found, especially among those who are infected with HIV. These individuals often have a newly acquired infection but also are likely to experience reactivation of a prior infection because of impaired immune function.

Individuals who sniff heroin or other opioids into the nose ("snorting") often develop irritation of the nasal mucosa, sometimes accompanied by perforation of the nasal septum. Difficulties in sexual functioning are common. Males often experience erectile dysfunction during intoxication or chronic use. Females commonly have disturbances of reproductive function and irregular menses.

In relation to infections such as cellulitis, hepatitis, HIV infection, tuberculosis, and endocarditis, opioid use disorder is associated with a mortality rate as high as 1.5%–2% per year. Death most often results from overdose, accidents, injuries, AIDS, or other general medical complications. Accidents and injuries due to violence that is associated with buying or selling drugs are common. In some areas, violence accounts for more opioid-related deaths than overdose or HIV infection. Physiological dependence on opioids may occur in about half of the infants born to females with opioid use disorder; this can produce a severe withdrawal syndrome requiring medical treatment. Although low birth weight is also seen in children of mothers with opioid use disorder, it is usually not marked and is generally not associated with serious adverse consequences.

Differential Diagnosis

Opioid-induced mental disorders. Opioid-induced disorders occur frequently in individuals with opioid use disorder. Opioid-induced disorders may be characterized by symptoms (e.g., depressed mood) that resemble primary mental disorders (e.g., persistent depressive disorder [dysthymia] vs. opioid-induced depressive disorder, with depressive features, with onset during intoxication). Opioids are less likely to produce symptoms of mental disturbance than are most other drugs of abuse. Opioid intoxication and opioid withdrawal are distinguished from the other opioid-induced disorders (e.g., opioid-induced depressive disorder, with onset during intoxication) because the symptoms in these latter disorders predominate the clinical presentation and are severe enough to warrant independent clinical attention.

Other substance intoxication. Alcohol intoxication and sedative, hypnotic, or anxiolytic intoxication can cause a clinical picture that resembles that for opioid intoxication. A diagnosis of alcohol or sedative, hypnotic, or anxiolytic intoxication can usually be made based on the absence of pupillary constriction or the lack of a response to naloxone challenge. In some cases, intoxication may be due both to opioids and to alcohol or other sedatives. In these cases, the naloxone challenge will not reverse all of the sedative effects.

Other withdrawal disorders. The anxiety and restlessness associated with opioid withdrawal resemble symptoms seen in sedative-hypnotic withdrawal. However, opioid withdrawal is also accompanied by rhinorrhea, lacrimation, and pupillary dilation, which

are not seen in sedative-type withdrawal. Dilated pupils are also seen in hallucinogen intoxication and stimulant intoxication. However, other signs or symptoms of opioid withdrawal, such as nausea, vomiting, diarrhea, abdominal cramps, rhinorrhea, or lacrimation, are not present.

Comorbidity

The most common medical conditions associated with opioid use disorder are viral (e.g., HIV, hepatitis C virus) and bacterial infections, particularly among users of opioids by injection. These infections are less common in opioid use disorder with prescription opioids. Opioid use disorder is often associated with other substance use disorders, especially those involving tobacco, alcohol, cannabis, stimulants, and benzodiazepines, which are often taken to reduce symptoms of opioid withdrawal or craving for opioids, or to enhance the effects of administered opioids. Individuals with opioid use disorder are at risk for the development of mild to moderate depression that meets symptomatic and duration criteria for persistent depressive disorder (dysthymia) or, in some cases, for major depressive disorder. These symptoms may represent an opioid-induced depressive disorder or an exacerbation of a preexisting primary depressive disorder. Periods of depression are especially common during chronic intoxication or in association with physical or psychosocial stressors that are related to the opioid use disorder. Insomnia is common, especially during withdrawal. Antisocial personality disorder is much more common in individuals with opioid use disorder than in the general population. Posttraumatic stress disorder is also seen with increased frequency. A history of conduct disorder in childhood or adolescence has been identified as a significant risk factor for substance-related disorders, especially opioid use disorder.

Opioid Intoxication

Diagnostic Criteria

A. Recent use of an opioid.

B. Clinically significant problematic behavioral or psychological changes (e.g., initial euphoria followed by apathy, dysphoria, psychomotor agitation or retardation, impaired judgment) that developed during, or shortly after, opioid use.

C. Pupillary constriction (or pupillary dilation due to anoxia from severe overdose) and one (or more) of the following signs or symptoms developing during, or shortly after, opioid use:

   1. Drowsiness or coma.
   2. Slurred speech.
   3. Impairment in attention or memory.

D. The signs or symptoms are not attributable to another medical condition and are not better explained by another mental disorder, including intoxication with another substance.

Specify if:

With perceptual disturbances: This specifier may be noted in the rare instance in which hallucinations with intact reality testing or auditory, visual, or tactile illusions occur in the absence of a delirium.

Coding note: The ICD-9-CM code is **292.89.** The ICD-10-CM code depends on whether or not there is a comorbid opioid use disorder and whether or not there are perceptual disturbances.

For opioid intoxication without perceptual disturbances: If a mild opioid use disorder is comorbid, the ICD-10-CM code is **F11.129,** and if a moderate or severe opioid

use disorder is comorbid, the ICD-10-CM code is **F11.229.** If there is no comorbid opioid use disorder, then the ICD-10-CM code is **F11.929.**

For opioid intoxication with perceptual disturbances: If a mild opioid use disorder is comorbid, the ICD-10-CM code is **F11.122,** and if a moderate or severe opioid use disorder is comorbid, the ICD-10-CM code is **F11.222.** If there is no comorbid opioid use disorder, then the ICD-10-CM code is **F11.922.**

Diagnostic Features

The essential feature of opioid intoxication is the presence of clinically significant problematic behavioral or psychological changes (e.g., initial euphoria followed by apathy, dysphoria, psychomotor agitation or retardation, impaired judgment) that develop during, or shortly after, opioid use (Criteria A and B). Intoxication is accompanied by pupillary constriction (unless there has been a severe overdose with consequent anoxia and pupillary dilation) and one or more of the following signs: drowsiness (described as being "on the nod"), slurred speech, and impairment in attention or memory (Criterion C); drowsiness may progress to coma. Individuals with opioid intoxication may demonstrate inattention to the environment, even to the point of ignoring potentially harmful events. The signs or symptoms must not be attributable to another medical condition and are not better explained by another mental disorder (Criterion D).

Differential Diagnosis

Other substance intoxication. Alcohol intoxication and sedative-hypnotic intoxication can cause a clinical picture that resembles opioid intoxication. A diagnosis of alcohol or sedative-hypnotic intoxication can usually be made based on the absence of pupillary constriction or the lack of a response to a naloxone challenge. In some cases, intoxication may be due both to opioids and to alcohol or other sedatives. In these cases, the naloxone challenge will not reverse all of the sedative effects.

Other opioid-related disorders. Opioid intoxication is distinguished from the other opioid-induced disorders (e.g., opioid-induced depressive disorder, with onset during intoxication) because the symptoms in the latter disorders predominate in the clinical presentation and meet full criteria for the relevant disorder.

Opioid Withdrawal

Diagnostic Criteria **292.0 (F11.23)**

A. Presence of either of the following:
   1. Cessation of (or reduction in) opioid use that has been heavy and prolonged (i.e., several weeks or longer).
   2. Administration of an opioid antagonist after a period of opioid use.

B. Three (or more) of the following developing within minutes to several days after Criterion A:
   1. Dysphoric mood.
   2. Nausea or vomiting.
   3. Muscle aches.
   4. Lacrimation or rhinorrhea.
   5. Pupillary dilation, piloerection, or sweating.

6. Diarrhea.
7. Yawning.
8. Fever.
9. Insomnia.

C. The signs or symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

D. The signs or symptoms are not attributable to another medical condition and are not better explained by another mental disorder, including intoxication or withdrawal from another substance.

Coding note: The ICD-9-CM code is 292.0. The ICD-10-CM code for opioid withdrawal is F11.23. Note that the ICD-10-CM code indicates the comorbid presence of a moderate or severe opioid use disorder, reflecting the fact that opioid withdrawal can only occur in the presence of a moderate or severe opioid use disorder. It is not permissible to code a comorbid mild opioid use disorder with opioid withdrawal.

Diagnostic Features

The essential feature of opioid withdrawal is the presence of a characteristic withdrawal syndrome that develops after the cessation of (or reduction in) opioid use that has been heavy and prolonged (Criterion A1). The withdrawal syndrome can also be precipitated by administration of an opioid antagonist (e.g., naloxone or naltrexone) after a period of opioid use (Criterion A2). This may also occur after administration of an opioid partial agonist such as buprenorphine to a person currently using a full opioid agonist.

Opioid withdrawal is characterized by a pattern of signs and symptoms that are opposite to the acute agonist effects. The first of these are subjective and consist of complaints of anxiety, restlessness, and an "achy feeling" that is often located in the back and legs, along with irritability and increased sensitivity to pain. Three or more of the following must be present to make a diagnosis of opioid withdrawal: dysphoric mood; nausea or vomiting; muscle aches; lacrimation or rhinorrhea; pupillary dilation, piloerection, or increased sweating; diarrhea; yawning; fever; and insomnia (Criterion B). Piloerection and fever are associated with more severe withdrawal and are not often seen in routine clinical practice because individuals with opioid use disorder usually obtain substances before withdrawal becomes that far advanced. These symptoms of opioid withdrawal must cause clinically significant distress or impairment in social, occupational, or other important areas of functioning (Criterion C). The symptoms must not be attributable to another medical condition and are not better explained by another mental disorder (Criterion D). Meeting diagnostic criteria for opioid withdrawal alone is not sufficient for a diagnosis of opioid use disorder, but concurrent symptoms of craving and drug-seeking behavior are suggestive of comorbid opioid use disorder. ICD-10-CM codes only allow a diagnosis of opioid withdrawal in the presence of comorbid moderate to severe opioid use disorder.

The speed and severity of withdrawal associated with opioids depend on the half-life of the opioid used. Most individuals who are physiologically dependent on short-acting drugs such as heroin begin to have withdrawal symptoms within 6–12 hours after the last dose. Symptoms may take 2–4 days to emerge in the case of longer-acting drugs such as methadone, LAAM (L-alpha-acetylmethadol), or buprenorphine. Acute withdrawal symptoms for a short-acting opioid such as heroin usually peak within 1–3 days and gradually subside over a period of 5–7 days. Less acute withdrawal symptoms can last for weeks to months. These more chronic symptoms include anxiety, dysphoria, anhedonia, and insomnia.

Associated Features Supporting Diagnosis

Males with opioid withdrawal may experience piloerection, sweating, and spontaneous ejaculations while awake. Opioid withdrawal is distinct from opioid use disorder and does not necessarily occur in the presence of the drug-seeking behavior associated with opioid use disorder. Opioid withdrawal may occur in any individual after cessation of repeated use of an opioid, whether in the setting of medical management of pain, during opioid agonist therapy for opioid use disorder, in the context of private recreational use, or following attempts to self-treat symptoms of mental disorders with opioids.

Prevalence

Among individuals from various clinical settings, opioid withdrawal occurred in 60% of individuals who had used heroin at least once in the prior 12 months.

Development and Course

Opioid withdrawal is typical in the course of an opioid use disorder. It can be part of an escalating pattern in which an opioid is used to reduce withdrawal symptoms, in turn leading to more withdrawal at a later time. For persons with an established opioid use disorder, withdrawal and attempts to relieve withdrawal are typical.

Differential Diagnosis

Other withdrawal disorders. The anxiety and restlessness associated with opioid withdrawal resemble symptoms seen in sedative-hypnotic withdrawal. However, opioid withdrawal is also accompanied by rhinorrhea, lacrimation, and pupillary dilation, which are not seen in sedative-type withdrawal.

Other substance intoxication. Dilated pupils are also seen in hallucinogen intoxication and stimulant intoxication. However, other signs or symptoms of opioid withdrawal, such as nausea, vomiting, diarrhea, abdominal cramps, rhinorrhea, and lacrimation, are not present.

Other opioid-induced disorders. Opioid withdrawal is distinguished from the other opioid-induced disorders (e.g., opioid-induced depressive disorder, with onset during withdrawal) because the symptoms in these latter disorders are in excess of those usually associated with opioid withdrawal and meet full criteria for the relevant disorder.

Other Opioid-Induced Disorders

The following opioid-induced disorders are described in other chapters of the manual with disorders with which they share phenomenology (see the substance/medication-induced mental disorders in these chapters): opioid-induced depressive disorder ("Depressive Disorders"); opioid-induced anxiety disorder ("Anxiety Disorders"); opioid-induced sleep disorder ("Sleep-Wake Disorders"); and opioid-induced sexual dysfunction ("Sexual Dysfunctions"). For opioid intoxication delirium and opioid withdrawal delirium, see the criteria and discussion of delirium in the chapter "Neurocognitive Disorders." These opioid-induced disorders are diagnosed instead of opioid intoxication or opioid withdrawal only when the symptoms are sufficiently severe to warrant independent clinical attention.

Unspecified Opioid-Related Disorder

292.9 (F11.99)

This category applies to presentations in which symptoms characteristic of an opioid-related disorder that cause clinically significant distress or impairment in social, occupational, or other important areas of functioning predominate but do not meet the full criteria for any specific opioid-related disorder or any of the disorders in the substance-related and addictive disorders diagnostic class.

Sedative-, Hypnotic-, or Anxiolytic-Related Disorders

Sedative, Hypnotic, or Anxiolytic Use Disorder
Sedative, Hypnotic, or Anxiolytic Intoxication
Sedative, Hypnotic, or Anxiolytic Withdrawal
Other Sedative-, Hypnotic-, or Anxiolytic-Induced Disorders
Unspecified Sedative-, Hypnotic-, or Anxiolytic-Related Disorder

Sedative, Hypnotic, or Anxiolytic Use Disorder

Diagnostic Criteria

A. A problematic pattern of sedative, hypnotic, or anxiolytic use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:

1. Sedatives, hypnotics, or anxiolytics are often taken in larger amounts or over a longer period than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control sedative, hypnotic, or anxiolytic use.
3. A great deal of time is spent in activities necessary to obtain the sedative, hypnotic, or anxiolytic; use the sedative, hypnotic, or anxiolytic; or recover from its effects.
4. Craving, or a strong desire or urge to use the sedative, hypnotic, or anxiolytic.
5. Recurrent sedative, hypnotic, or anxiolytic use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences from work or poor work performance related to sedative, hypnotic, or anxiolytic use; sedative-, hypnotic-, or anxiolytic-related absences, suspensions, or expulsions from school; neglect of children or household).
6. Continued sedative, hypnotic, or anxiolytic use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of sedatives, hypnotics, or anxiolytics (e.g., arguments with a spouse about consequences of intoxication; physical fights).
7. Important social, occupational, or recreational activities are given up or reduced because of sedative, hypnotic, or anxiolytic use.

8. Recurrent sedative, hypnotic, or anxiolytic use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by sedative, hypnotic, or anxiolytic use).
9. Sedative, hypnotic, or anxiolytic use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the sedative, hypnotic, or anxiolytic.
10. Tolerance, as defined by either of the following:
    a. A need for markedly increased amounts of the sedative, hypnotic, or anxiolytic to achieve intoxication or desired effect.
    b. A markedly diminished effect with continued use of the same amount of the sedative, hypnotic, or anxiolytic.

    Note: This criterion is not considered to be met for individuals taking sedatives, hypnotics, or anxiolytics under medical supervision.
11. Withdrawal, as manifested by either of the following:
    a. The characteristic withdrawal syndrome for sedatives, hypnotics, or anxiolytics (refer to Criteria A and B of the criteria set for sedative, hypnotic, or anxiolytic withdrawal, pp. 557–558).
    b. Sedatives, hypnotics, or anxiolytics (or a closely related substance, such as alcohol) are taken to relieve or avoid withdrawal symptoms.

    Note: This criterion is not considered to be met for individuals taking sedatives, hypnotics, or anxiolytics under medical supervision.

Specify if:

In early remission: After full criteria for sedative, hypnotic, or anxiolytic use disorder were previously met, none of the criteria for sedative, hypnotic, or anxiolytic use disorder have been met for at least 3 months but for less than 12 months (with the exception that Criterion A4, "Craving, or a strong desire or urge to use the sedative, hypnotic, or anxiolytic," may be met).

In sustained remission: After full criteria for sedative, hypnotic, or anxiolytic use disorder were previously met, none of the criteria for sedative, hypnotic, or anxiolytic use disorder have been met at any time during a period of 12 months or longer (with the exception that Criterion A4, "Craving, or a strong desire or urge to use the sedative, hypnotic, or anxiolytic," may be met).

Specify if:

In a controlled environment: This additional specifier is used if the individual is in an environment where access to sedatives, hypnotics, or anxiolytics is restricted.

Coding based on current severity: Note for ICD-10-CM codes: If a sedative, hypnotic, or anxiolytic intoxication; sedative, hypnotic, or anxiolytic withdrawal; or another sedative-, hypnotic-, or anxiolytic-induced mental disorder is also present, do not use the codes below for sedative, hypnotic, or anxiolytic use disorder. Instead the comorbid sedative, hypnotic, or anxiolytic use disorder is indicated in the 4th character of the sedative-, hypnotic-, or anxiolytic-induced disorder (see the coding note for sedative, hypnotic, or anxiolytic intoxication; sedative, hypnotic, or anxiolytic withdrawal; or specific sedative-, hypnotic-, or anxiolytic-induced mental disorder). For example, if there is comorbid sedative-, hypnotic-, or anxiolytic-induced depressive disorder and sedative, hypnotic, or anxiolytic use disorder, only the sedative-, hypnotic-, or anxiolytic-induced depressive disorder code is given with the 4th character indicating whether the comorbid sedative, hypnotic, or anxiolytic use disorder is mild, moderate, or severe: F13.14 for mild sedative, hypnotic, or anxiolytic use disorder with sedative-, hypnotic-, or anxiolytic-induced depressive disorder or F13.24 for a moderate or severe sedative, hypnotic, or anxiolytic use disorder with sedative-, hypnotic-, or anxiolytic-induced depressive disorder.

Specify current severity:

305.40 (F13.10) Mild: Presence of 2–3 symptoms.

304.10 (F13.20) Moderate: Presence of 4–5 symptoms.

304.10 (F13.20) Severe: Presence of 6 or more symptoms.

Specifiers

"In a controlled environment" applies as a further specifier of remission if the individual is both in remission and in a controlled environment (i.e., in early remission in a controlled environment or in sustained remission in a controlled environment). Examples of these environments are closely supervised and substance-free jails, therapeutic communities, and locked hospital units.

Diagnostic Features

Sedative, hypnotic, or anxiolytic substances include benzodiazepines, benzodiazepine-like drugs (e.g., zolpidem, zaleplon), carbamates (e.g., glutethimide, meprobamate), barbiturates (e.g., secobarbital), and barbiturate-like hypnotics (e.g., glutethimide, methaqualone). This class of substances includes all prescription sleeping medications and almost all prescription antianxiety medications. Nonbenzodiazepine antianxiety agents (e.g., buspirone, gepirone) are not included in this class because they do not appear to be associated with significant misuse.

Like alcohol, these agents are brain depressants and can produce similar substance/medication-induced and substance use disorders. Sedative, hypnotic, or anxiolytic substances are available both by prescription and illegally. Some individuals who obtain these substances by prescription will develop a sedative, hypnotic, or anxiolytic use disorder, while others who misuse these substances or use them for intoxication will not develop a use disorder. In particular, sedatives, hypnotics, or anxiolytics with rapid onset and/or short to intermediate lengths of action may be taken for intoxication purposes, although longer acting substances in this class may be taken for intoxication as well.

Craving (Criterion A4), either while using or during a period of abstinence, is a typical feature of sedative, hypnotic, or anxiolytic use disorder. Misuse of substances from this class may occur on its own or in conjunction with use of other substances. For example, individuals may use intoxicating doses of sedatives or benzodiazepines to "come down" from cocaine or amphetamines or use high doses of benzodiazepines in combination with methadone to "boost" its effects.

Repeated absences or poor work performance, school absences, suspensions or expulsions, and neglect of children or household (Criterion A5) may be related to sedative, hypnotic, or anxiolytic use disorder, as may the continued use of the substances despite arguments with a spouse about consequences of intoxication or despite physical fights (Criterion A6). Limiting contact with family or friends, avoiding work or school, or stopping participation in hobbies, sports, or games (Criterion A7) and recurrent sedative, hypnotic, or anxiolytic use when driving an automobile or operating a machine when impaired by sedative, hypnotic, or anxiolytic use (Criterion A8) are also seen in sedative, hypnotic, or anxiolytic use disorder.

Very significant levels of tolerance and withdrawal can develop to the sedative, hypnotic, or anxiolytic. There may be evidence of tolerance and withdrawal in the absence of a diagnosis of a sedative, hypnotic, or anxiolytic use disorder in an individual who has abruptly discontinued use of benzodiazepines that were taken for long periods of time at prescribed and therapeutic doses. In these cases, an additional diagnosis of sedative, hypnotic, or anxiolytic use disorder is made only if other criteria are met. That is, sedative, hypnotic, or anxiolytic medications may be prescribed for appropriate medical purposes, and depending on the dose regimen, these drugs may then produce tolerance and with-

drawal. If these drugs are prescribed or recommended for appropriate medical purposes, and if they are used as prescribed, the resulting tolerance or withdrawal does not meet the criteria for diagnosing a substance use disorder. However, it is necessary to determine whether the drugs were appropriately prescribed and used (e.g., falsifying medical symptoms to obtain the medication; using more medication than prescribed; obtaining the medication from several doctors without informing them of the others' involvement).

Given the unidimensional nature of the symptoms of sedative, hypnotic, or anxiolytic use disorder, severity is based on the number of criteria endorsed.

Associated Features Supporting Diagnosis

Sedative, hypnotic, or anxiolytic use disorder is often associated with other substance use disorders (e.g., alcohol, cannabis, opioid, stimulant use disorders). Sedatives are often used to alleviate the unwanted effects of these other substances. With repeated use of the substance, tolerance develops to the sedative effects, and a progressively higher dose is used. However, tolerance to brain stem depressant effects develops much more slowly, and as the individual takes more substance to achieve euphoria or other desired effects, there may be a sudden onset of respiratory depression and hypotension, which may result in death. Intense or repeated sedative, hypnotic, or anxiolytic intoxication may be associated with severe depression that, although temporary, can lead to suicide attempt and completed suicide.

Prevalence

The 12-month prevalences of DSM-IV sedative, hypnotic, or anxiolytic use disorder are estimated to be 0.3% among 12- to 17-year-olds and 0.2% among adults age 18 years and older. Rates of DSM-IV sedative, hypnotic, or anxiolytic use disorder are slightly greater among adult males (0.3%) than among adult females, but for 12- to 17-year-olds, the rate for females (0.4%) exceeds that for males (0.2%). The 12-month prevalence of DSM-IV sedative, hypnotic, or anxiolytic use disorder decreases as a function of age and is greatest among 18- to 29-year-olds (0.5%) and lowest among individuals 65 years and older (0.04%).

Twelve-month prevalence of sedative, hypnotic, or anxiolytic use disorder varies across racial/ethnic subgroups of the U.S. population. For 12- to 17-year-olds, rates are greatest among whites (0.3%) relative to African Americans (0.2%), Hispanics (0.2%), Native Americans (0.1%), and Asian Americans and Pacific Islanders (0.1%). Among adults, 12-month prevalence is greatest among Native Americans and Alaska Natives (0.8%), with rates of approximately 0.2% among African Americans, whites, and Hispanics and 0.1% among Asian Americans and Pacific Islanders.

Development and Course

The usual course of sedative, hypnotic, or anxiolytic use disorder involves individuals in their teens or 20s who escalate their occasional use of sedative, hypnotic, or anxiolytic agents to the point at which they develop problems that meet criteria for a diagnosis. This pattern may be especially likely among individuals who have other substance use disorders (e.g., alcohol, opioids, stimulants). An initial pattern of intermittent use socially (e.g., at parties) can lead to daily use and high levels of tolerance. Once this occurs, an increasing level of interpersonal difficulties, as well as increasingly severe episodes of cognitive dysfunction and physiological withdrawal, can be expected.

The second and less frequently observed clinical course begins with an individual who originally obtained the medication by prescription from a physician, usually for the treatment of anxiety, insomnia, or somatic complaints. As either tolerance or a need for higher doses of the medication develops, there is a gradual increase in the dose and frequency of self-administration. The individual is likely to continue to justify use on the basis of his or her original symptoms of anxiety or insomnia, but substance-seeking behavior becomes

more prominent, and the individual may seek out multiple physicians to obtain sufficient supplies of the medication. Tolerance can reach high levels, and withdrawal (including seizures and withdrawal delirium) may occur.

As with many substance use disorders, sedative, hypnotic, or anxiolytic use disorder generally has an onset during adolescence or early adult life. There is an increased risk for misuse and problems from many psychoactive substances as individuals age. In particular, cognitive impairment increases as a side effect with age, and the metabolism of sedatives, hypnotics, or anxiolytics decreases with age among older individuals. Both acute and chronic toxic effects of these substances, especially effects on cognition, memory, and motor coordination, are likely to increase with age as a consequence of pharmacodynamic and pharmacokinetic age-related changes. Individuals with major neurocognitive disorder (dementia) are more likely to develop intoxication and impaired physiological functioning at lower doses.

Deliberate intoxication to achieve a "high" is most likely to be observed in teenagers and individuals in their 20s. Problems associated with sedatives, hypnotics, or anxiolytics are also seen in individuals in their 40s and older who escalate the dose of prescribed medications. In older individuals, intoxication can resemble a progressive dementia.

Risk and Prognostic Factors

Temperamental. Impulsivity and novelty seeking are individual temperaments that relate to the propensity to develop a substance use disorder but may themselves be genetically determined.

Environmental. Since sedatives, hypnotics, or anxiolytics are all pharmaceuticals, a key risk factor relates to availability of the substances. In the United States, the historical patterns of sedative, hypnotic, or anxiolytic misuse relate to the broad prescribing patterns. For instance, a marked decrease in prescription of barbiturates was associated with an increase in benzodiazepine prescribing. Peer factors may relate to genetic predisposition in terms of how individuals select their environment. Other individuals at heightened risk might include those with alcohol use disorder who may receive repeated prescriptions in response to their complaints of alcohol-related anxiety or insomnia.

Genetic and physiological. As for other substance use disorders, the risk for sedative, hypnotic, or anxiolytic use disorder can be related to individual, family, peer, social, and environmental factors. Within these domains, genetic factors play a particularly important role both directly and indirectly. Overall, across development, genetic factors seem to play a larger role in the onset of sedative, hypnotic, or anxiolytic use disorder as individuals age through puberty into adult life.

Course modifiers. Early onset of use is associated with greater likelihood for developing a sedative, hypnotic, or anxiolytic use disorder.

Culture-Related Diagnostic Issues

There are marked variations in prescription patterns (and availability) of this class of substances in different countries, which may lead to variations in prevalence of sedative, hypnotic, or anxiolytic use disorders.

Gender-Related Diagnostic Issues

Females may be at higher risk than males for prescription drug misuse of sedative, hypnotic, or anxiolytic substances.

Diagnostic Markers

Almost all sedative, hypnotic, or anxiolytic substances can be identified through laboratory evaluations of urine or blood (the latter of which can quantify the amounts of these

agents in the body). Urine tests are likely to remain positive for up to approximately 1 week after the use of long-acting substances, such as diazepam or flurazepam.

Functional Consequences of Sedative, Hypnotic, or Anxiolytic Use Disorder

The social and interpersonal consequences of sedative, hypnotic, or anxiolytic use disorder mimic those of alcohol in terms of the potential for disinhibited behavior. Accidents, interpersonal difficulties (such as arguments or fights), and interference with work or school performance are all common outcomes. Physical examination is likely to reveal evidence of a mild decrease in most aspects of autonomic nervous system functioning, including a slower pulse, a slightly decreased respiratory rate, and a slight drop in blood pressure (most likely to occur with postural changes). At high doses, sedative, hypnotic, or anxiolytic substances can be lethal, particularly when mixed with alcohol, although the lethal dosage varies considerably among the specific substances. Overdoses may be associated with a deterioration in vital signs that signals an impending medical emergency (e.g., respiratory arrest from barbiturates). There may be consequences of trauma (e.g., internal bleeding or a subdural hematoma) from accidents that occur while intoxicated. Intravenous use of these substances can result in medical complications related to the use of contaminated needles (e.g., hepatitis and HIV).

Acute intoxication can result in accidental injuries and automobile accidents. For elderly individuals, even short-term use of these sedating medications at prescribed doses can be associated with an increased risk for cognitive problems and falls. The disinhibiting effects of these agents, like alcohol, may potentially contribute to overly aggressive behavior, with subsequent interpersonal and legal problems. Accidental or deliberate overdoses, similar to those observed for alcohol use disorder or repeated alcohol intoxication, can occur. In contrast to their wide margin of safety when used alone, benzodiazepines taken in combination with alcohol can be particularly dangerous, and accidental overdoses are reported commonly. Accidental overdoses have also been reported in individuals who deliberately misuse barbiturates and other nonbenzodiazepine sedatives (e.g., methaqualone), but since these agents are much less available than the benzodiazepines, the frequency of overdosing is low in most settings.

Differential Diagnosis

Other mental disorders or medical conditions. Individuals with sedative-, hypnotic-, or anxiolytic-induced disorders may present with symptoms (e.g., anxiety) that resemble primary mental disorders (e.g., generalized anxiety disorder vs. sedative-, hypnotic-, or anxiolytic-induced anxiety disorder, with onset during withdrawal). The slurred speech, incoordination, and other associated features characteristic of sedative, hypnotic, or anxiolytic intoxication could be the result of another medical condition (e.g., multiple sclerosis) or of a prior head trauma (e.g., a subdural hematoma).

Alcohol use disorder. Sedative, hypnotic, or anxiolytic use disorder must be differentiated from alcohol use disorder.

Clinically appropriate use of sedative, hypnotic, or anxiolytic medications. Individuals may continue to take benzodiazepine medication according to a physician's direction for a legitimate medical indication over extended periods of time. Even if physiological signs of tolerance or withdrawal are manifested, many of these individuals do not develop symptoms that meet the criteria for sedative, hypnotic, or anxiolytic use disorder because they are not preoccupied with obtaining the substance and its use does not interfere with their performance of usual social or occupational roles.

Comorbidity

Nonmedical use of sedative, hypnotic, or anxiolytic agents is associated with alcohol use disorder, tobacco use disorder, and, generally, illicit drug use. There may also be an over-

lap between sedative, hypnotic, or anxiolytic use disorder and antisocial personality disorder; depressive, bipolar, and anxiety disorders; and other substance use disorders, such as alcohol use disorder and illicit drug use disorders. Antisocial behavior and antisocial personality disorder are especially associated with sedative, hypnotic, or anxiolytic use disorder when the substances are obtained illegally.

Sedative, Hypnotic, or Anxiolytic Intoxication

Diagnostic Criteria

A. Recent use of a sedative, hypnotic, or anxiolytic.
B. Clinically significant maladaptive behavioral or psychological changes (e.g., inappropriate sexual or aggressive behavior, mood lability, impaired judgment) that developed during, or shortly after, sedative, hypnotic, or anxiolytic use.
C. One (or more) of the following signs or symptoms developing during, or shortly after, sedative, hypnotic, or anxiolytic use:
    1. Slurred speech.
    2. Incoordination.
    3. Unsteady gait.
    4. Nystagmus.
    5. Impairment in cognition (e.g., attention, memory).
    6. Stupor or coma.
D. The signs or symptoms are not attributable to another medical condition and are not better explained by another mental disorder, including intoxication with another substance.

Coding note: The ICD-9-CM code is **292.89.** The ICD-10-CM code depends on whether there is a comorbid sedative, hypnotic, or anxiolytic use disorder. If a mild sedative, hypnotic, or anxiolytic use disorder is comorbid, the ICD-10-CM code is **F13.129,** and if a moderate or severe sedative, hypnotic, or anxiolytic use disorder is comorbid, the ICD-10-CM code is **F13.229.** If there is no comorbid sedative, hypnotic, or anxiolytic use disorder, then the ICD-10-CM code is **F13.929.**

Note: For information on Development and Course; Risk and Prognostic Factors; Culture-Related Diagnostic Issues; Diagnostic Markers; Functional Consequences of Sedative, Hypnotic, or Anxiolytic Intoxication; and Comorbidity, see the corresponding sections in sedative, hypnotic, or anxiolytic use disorder.

Diagnostic Features

The essential feature of sedative, hypnotic, or anxiolytic intoxication is the presence of clinically significant maladaptive behavioral or psychological changes (e.g., inappropriate sexual or aggressive behavior, mood lability, impaired judgment, impaired social or occupational functioning) that develop during, or shortly after, use of a sedative, hypnotic, or anxiolytic (Criteria A and B). As with other brain depressants, such as alcohol, these behaviors may be accompanied by slurred speech, incoordination (at levels that can interfere with driving abilities and with performing usual activities to the point of causing falls or automobile accidents), an unsteady gait, nystagmus, impairment in cognition (e.g., attentional or memory problems), and stupor or coma (Criterion C). Memory impairment is a prominent feature of sedative, hypnotic, or anxiolytic intoxication and is most often characterized by an anterograde amnesia that resembles "alcoholic blackouts," which can be disturbing to the individual. The symptoms must not be attributable to another medical condition and are not better explained by another

mental disorder (Criterion D). Intoxication may occur in individuals who are receiving these substances by prescription, are borrowing the medication from friends or relatives, or are deliberately taking the substance to achieve intoxication.

Associated Features Supporting Diagnosis

Associated features include taking more medication than prescribed, taking multiple different medications, or mixing sedative, hypnotic, or anxiolytic agents with alcohol, which can markedly increase the effects of these agents.

Prevalence

The prevalence of sedative, hypnotic, or anxiolytic intoxication in the general population is unclear. However, it is probable that most nonmedical users of sedatives, hypnotics, or anxiolytics would at some time have signs or symptoms that meet criteria for sedative, hypnotic, or anxiolytic intoxication; if so, then the prevalence of nonmedical sedative, hypnotic, or anxiolytic use in the general population may be similar to the prevalence of sedative, hypnotic, or anxiolytic intoxication. For example, tranquilizers are used nonmedically by 2.2% of Americans older than 12 years.

Differential Diagnosis

Alcohol use disorders. Since the clinical presentations may be identical, distinguishing sedative, hypnotic, or anxiolytic intoxication from alcohol use disorders requires evidence for recent ingestion of sedative, hypnotic, or anxiolytic medications by self-report, informant report, or toxicological testing. Many individuals who misuse sedatives, hypnotics, or anxiolytics may also misuse alcohol and other substances, and so multiple intoxication diagnoses are possible.

Alcohol intoxication. Alcohol intoxication may be distinguished from sedative, hypnotic, or anxiolytic intoxication by the smell of alcohol on the breath. Otherwise, the features of the two disorders may be similar.

Other sedative-, hypnotic-, or anxiolytic-induced disorders. Sedative, hypnotic, or anxiolytic intoxication is distinguished from the other sedative-, hypnotic-, or anxiolytic-induced disorders (e.g., sedative-, hypnotic-, or anxiolytic-induced anxiety disorder, with onset during withdrawal) because the symptoms in the latter disorders predominate in the clinical presentation and are severe enough to warrant clinical attention.

Neurocognitive disorders. In situations of cognitive impairment, traumatic brain injury, and delirium from other causes, sedatives, hypnotics, or anxiolytics may be intoxicating at quite low dosages. The differential diagnosis in these complex settings is based on the predominant syndrome. An additional diagnosis of sedative, hypnotic, or anxiolytic intoxication may be appropriate even if the substance has been ingested at a low dosage in the setting of these other (or similar) co-occurring conditions.

Sedative, Hypnotic, or Anxiolytic Withdrawal

Diagnostic Criteria

A. Cessation of (or reduction in) sedative, hypnotic, or anxiolytic use that has been prolonged.
B. Two (or more) of the following, developing within several hours to a few days after the cessation of (or reduction in) sedative, hypnotic, or anxiolytic use described in Criterion A:
   1. Autonomic hyperactivity (e.g., sweating or pulse rate greater than 100 bpm).
   2. Hand tremor.

3. Insomnia.
4. Nausea or vomiting.
5. Transient visual, tactile, or auditory hallucinations or illusions.
6. Psychomotor agitation.
7. Anxiety.
8. Grand mal seizures.

C. The signs or symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

D. The signs or symptoms are not attributable to another medical condition and are not better explained by another mental disorder, including intoxication or withdrawal from another substance.

Specify if:

With perceptual disturbances: This specifier may be noted when hallucinations with intact reality testing or auditory, visual, or tactile illusions occur in the absence of a delirium.

Coding note: The ICD-9-CM code is **292.0.** The ICD-10-CM code for sedative, hypnotic, or anxiolytic withdrawal depends on whether or not there is a comorbid moderate or severe sedative, hypnotic, or anxiolytic use disorder and whether or not there are perceptual disturbances. For sedative, hypnotic, or anxiolytic withdrawal without perceptual disturbances, the ICD-10-CM code is **F13.239.** For sedative, hypnotic, or anxiolytic withdrawal with perceptual disturbances, the ICD-10-CM code is **F13.232.** Note that the ICD-10-CM codes indicate the comorbid presence of a moderate or severe sedative, hypnotic, or anxiolytic use disorder, reflecting the fact that sedative, hypnotic, or anxiolytic withdrawal can only occur in the presence of a moderate or severe sedative, hypnotic, or anxiolytic use disorder. It is not permissible to code a comorbid mild sedative, hypnotic, or anxiolytic use disorder with sedative, hypnotic, or anxiolytic withdrawal.

Note: For information on Development and Course; Risk and Prognostic Factors; Culture-Related Diagnostic Issues; Functional Consequences of Sedative, Hypnotic, or Anxiolytic Withdrawal; and Comorbidity, see the corresponding sections in sedative, hypnotic, or anxiolytic use disorder.

Diagnostic Features

The essential feature of sedative, hypnotic, or anxiolytic withdrawal is the presence of a characteristic syndrome that develops after a marked decrease in or cessation of intake after several weeks or more of regular use (Criteria A and B). This withdrawal syndrome is characterized by two or more symptoms (similar to alcohol withdrawal) that include autonomic hyperactivity (e.g., increases in heart rate, respiratory rate, blood pressure, or body temperature, along with sweating); a tremor of the hands; insomnia; nausea, sometimes accompanied by vomiting; anxiety; and psychomotor agitation. A grand mal seizure may occur in perhaps as many as 20%–30% of individuals undergoing untreated withdrawal from these substances. In severe withdrawal, visual, tactile, or auditory hallucinations or illusions can occur but are usually in the context of a delirium. If the individual's reality testing is intact (i.e., he or she knows the substance is causing the hallucinations) and the illusions occur in a clear sensorium, the specifier "with perceptual disturbances" can be noted. When hallucinations occur in the absence of intact reality testing, a diagnosis of substance/medication-induced psychotic disorder should be considered. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning (Criterion C). The symptoms must not be attributable to another medical condition and are not better explained by another mental disorder (e.g., alcohol withdrawal or generalized anxiety disorder) (Criterion D). Relief of withdrawal symptoms with administration of any sedative-hypnotic agent would support a diagnosis of sedative, hypnotic, or anxiolytic withdrawal.

Associated Features Supporting Diagnosis

The timing and severity of the withdrawal syndrome will differ depending on the specific substance and its pharmacokinetics and pharmacodynamics. For example, withdrawal from shorter-acting substances that are rapidly absorbed and that have no active metabolites (e.g., triazolam) can begin within hours after the substance is stopped; withdrawal from substances with long-acting metabolites (e.g., diazepam) may not begin for 1–2 days or longer. The withdrawal syndrome produced by substances in this class may be characterized by the development of a delirium that can be life-threatening. There may be evidence of tolerance and withdrawal in the absence of a diagnosis of a substance use disorder in an individual who has abruptly discontinued benzodiazepines that were taken for long periods of time at prescribed and therapeutic doses. However, ICD-10-CM codes only allow a diagnosis of sedative, hypnotic, or anxiolytic withdrawal in the presence of comorbid moderate to severe sedative, hypnotic, or anxiolytic use disorder.

The time course of the withdrawal syndrome is generally predicted by the half-life of the substance. Medications whose actions typically last about 10 hours or less (e.g., lorazepam, oxazepam, temazepam) produce withdrawal symptoms within 6–8 hours of decreasing blood levels that peak in intensity on the second day and improve markedly by the fourth or fifth day. For substances with longer half-lives (e.g., diazepam), symptoms may not develop for more than 1 week, peak in intensity during the second week, and decrease markedly during the third or fourth week. There may be additional longer-term symptoms at a much lower level of intensity that persist for several months.

The longer the substance has been taken and the higher the dosages used, the more likely it is that there will be severe withdrawal. However, withdrawal has been reported with as little as 15 mg of diazepam (or its equivalent in other benzodiazepines) when taken daily for several months. Doses of approximately 40 mg of diazepam (or its equivalent) daily are more likely to produce clinically relevant withdrawal symptoms, and even higher doses (e.g., 100 mg of diazepam) are more likely to be followed by withdrawal seizures or delirium. Sedative, hypnotic, or anxiolytic withdrawal delirium is characterized by disturbances in consciousness and cognition, with visual, tactile, or auditory hallucinations. When present, sedative, hypnotic, or anxiolytic withdrawal delirium should be diagnosed instead of withdrawal.

Prevalence

The prevalence of sedative, hypnotic, or anxiolytic withdrawal is unclear.

Diagnostic Markers

Seizures and autonomic instability in the setting of a history of prolonged exposure to sedative, hypnotic, or anxiolytic medications suggest a high likelihood of sedative, hypnotic, or anxiolytic withdrawal.

Differential Diagnosis

Other medical disorders. The symptoms of sedative, hypnotic, or anxiolytic withdrawal may be mimicked by other medical conditions (e.g., hypoglycemia, diabetic ketoacidosis). If seizures are a feature of the sedative, hypnotic, or anxiolytic withdrawal, the differential diagnosis includes the various causes of seizures (e.g., infections, head injury, poisonings).

Essential tremor. Essential tremor, a disorder that frequently runs in families, may erroneously suggest the tremulousness associated with sedative, hypnotic, or anxiolytic withdrawal.

Alcohol withdrawal. Alcohol withdrawal produces a syndrome very similar to that of sedative, hypnotic, or anxiolytic withdrawal.

Other sedative-, hypnotic-, or anxiolytic-induced disorders. Sedative, hypnotic, or anxiolytic withdrawal is distinguished from the other sedative-, hypnotic-, or anxiolytic-induced disorders (e.g., sedative-, hypnotic-, or anxiolytic-induced anxiety disorder, with onset during withdrawal) because the symptoms in the latter disorders predominate in the clinical presentation and are severe enough to warrant clinical attention.

Anxiety disorders. Recurrence or worsening of an underlying anxiety disorder produces a syndrome similar to sedative, hypnotic, or anxiolytic withdrawal. Withdrawal would be suspected with an abrupt reduction in the dosage of a sedative, hypnotic, or anxiolytic medication. When a taper is under way, distinguishing the withdrawal syndrome from the underlying anxiety disorder can be difficult. As with alcohol, lingering withdrawal symptoms (e.g., anxiety, moodiness, and trouble sleeping) can be mistaken for non-substance/medication-induced anxiety or depressive disorders (e.g., generalized anxiety disorder).

Other Sedative-, Hypnotic-, or Anxiolytic-Induced Disorders

The following sedative-, hypnotic-, or anxiolytic-induced disorders are described in other chapters of the manual with disorders with which they share phenomenology (see the substance/medication-induced mental disorders in these chapters): sedative-, hypnotic-, or anxiolytic-induced psychotic disorder ("Schizophrenia Spectrum and Other Psychotic Disorders"); sedative-, hypnotic-, or anxiolytic-induced bipolar disorder ("Bipolar and Related Disorders"); sedative-, hypnotic-, or anxiolytic-induced depressive disorder ("Depressive Disorders"); sedative-, hypnotic-, or anxiolytic-induced anxiety disorder ("Anxiety Disorders"); sedative-, hypnotic-, or anxiolytic-induced sleep disorder ("Sleep-Wake Disorders"); sedative-, hypnotic-, or anxiolytic-induced sexual dysfunction ("Sexual Dysfunctions"); and sedative-, hypnotic-, or anxiolytic-induced major or mild neurocognitive disorder ("Neurocognitive Disorders"). For sedative, hypnotic, or anxiolytic intoxication delirium and sedative, hypnotic, or anxiolytic withdrawal delirium, see the criteria and discussion of delirium in the chapter "Neurocognitive Disorders." These sedative-, hypnotic-, or anxiolytic-induced disorders are diagnosed instead of sedative, hypnotic, or anxiolytic intoxication or sedative, hypnotic, or anxiolytic withdrawal only when the symptoms are sufficiently severe to warrant independent clinical attention.

Unspecified Sedative-, Hypnotic-, or Anxiolytic-Related Disorder

292.9 (F13.99)

This category applies to presentations in which symptoms characteristic of a sedative-, hypnotic-, or anxiolytic-related disorder that cause clinically significant distress or impairment in social, occupational, or other important areas of functioning predominate but do not meet the full criteria for any specific sedative-, hypnotic-, or anxiolytic-related disorder or any of the disorders in the substance-related and addictive disorders diagnostic class.

Stimulant-Related Disorders

Stimulant Use Disorder
Stimulant Intoxication
Stimulant Withdrawal
Other Stimulant-Induced Disorders
Unspecified Stimulant-Related Disorder

Stimulant Use Disorder

Diagnostic Criteria

A. A pattern of amphetamine-type substance, cocaine, or other stimulant use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:

1. The stimulant is often taken in larger amounts or over a longer period than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control stimulant use.
3. A great deal of time is spent in activities necessary to obtain the stimulant, use the stimulant, or recover from its effects.
4. Craving, or a strong desire or urge to use the stimulant.
5. Recurrent stimulant use resulting in a failure to fulfill major role obligations at work, school, or home.
6. Continued stimulant use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the stimulant.
7. Important social, occupational, or recreational activities are given up or reduced because of stimulant use.
8. Recurrent stimulant use in situations in which it is physically hazardous.
9. Stimulant use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the stimulant.
10. Tolerance, as defined by either of the following:
    a. A need for markedly increased amounts of the stimulant to achieve intoxication or desired effect.
    b. A markedly diminished effect with continued use of the same amount of the stimulant.

    Note: This criterion is not considered to be met for those taking stimulant medications solely under appropriate medical supervision, such as medications for attention-deficit/hyperactivity disorder or narcolepsy.
11. Withdrawal, as manifested by either of the following:
    a. The characteristic withdrawal syndrome for the stimulant (refer to Criteria A and B of the criteria set for stimulant withdrawal, p. 569).
    b. The stimulant (or a closely related substance) is taken to relieve or avoid withdrawal symptoms.

Note: This criterion is not considered to be met for those taking stimulant medications solely under appropriate medical supervision, such as medications for attention-deficit/hyperactivity disorder or narcolepsy.

Specify if:

In early remission: After full criteria for stimulant use disorder were previously met, none of the criteria for stimulant use disorder have been met for at least 3 months but for less than 12 months (with the exception that Criterion A4, "Craving, or a strong desire or urge to use the stimulant," may be met).

In sustained remission: After full criteria for stimulant use disorder were previously met, none of the criteria for stimulant use disorder have been met at any time during a period of 12 months or longer (with the exception that Criterion A4, "Craving, or a strong desire or urge to use the stimulant," may be met).

Specify if:

In a controlled environment: This additional specifier is used if the individual is in an environment where access to stimulants is restricted.

Coding based on current severity: Note for ICD-10-CM codes: If an amphetamine intoxication, amphetamine withdrawal, or another amphetamine-induced mental disorder is also present, do not use the codes below for amphetamine use disorder. Instead, the comorbid amphetamine use disorder is indicated in the 4th character of the amphetamine-induced disorder code (see the coding note for amphetamine intoxication, amphetamine withdrawal, or a specific amphetamine-induced mental disorder). For example, if there is comorbid amphetamine-type or other stimulant-induced depressive disorder and amphetamine-type or other stimulant use disorder, only the amphetamine-type or other stimulant-induced depressive disorder code is given, with the 4th character indicating whether the comorbid amphetamine-type or other stimulant use disorder is mild, moderate, or severe: F15.14 for mild amphetamine-type or other stimulant use disorder with amphetamine-type or other stimulant-induced depressive disorder or F15.24 for a moderate or severe amphetamine-type or other stimulant use disorder with amphetamine-type or other stimulant-induced depressive disorder. Similarly, if there is comorbid cocaine-induced depressive disorder and cocaine use disorder, only the cocaine-induced depressive disorder code is given, with the 4th character indicating whether the comorbid cocaine use disorder is mild, moderate, or severe: F14.14 for mild cocaine use disorder with cocaine-induced depressive disorder or F14.24 for a moderate or severe cocaine use disorder with cocaine-induced depressive disorder.

Specify current severity:

Mild: Presence of 2–3 symptoms.

305.70 (F15.10) Amphetamine-type substance
305.60 (F14.10) Cocaine
305.70 (F15.10) Other or unspecified stimulant

Moderate: Presence of 4–5 symptoms.

304.40 (F15.20) Amphetamine-type substance
304.20 (F14.20) Cocaine
304.40 (F15.20) Other or unspecified stimulant

Severe: Presence of 6 or more symptoms.

304.40 (F15.20) Amphetamine-type substance
304.20 (F14.20) Cocaine
304.40 (F15.20) Other or unspecified stimulant

Specifiers

"In a controlled environment" applies as a further specifier of remission if the individual is both in remission and in a controlled environment (i.e., in early remission in a controlled environment or in sustained remission in a controlled environment). Examples of these environments are closely supervised and substance-free jails, therapeutic communities, and locked hospital units.

Diagnostic Features

The amphetamine and amphetamine-type stimulants include substances with a substituted-phenylethylamine structure, such as amphetamine, dextroamphetamine, and methamphetamine. Also included are those substances that are structurally different but have similar effects, such as methylphenidate. These substances are usually taken orally or intravenously, although methamphetamine is also taken by the nasal route. In addition to the synthetic amphetamine-type compounds, there are naturally occurring, plant-derived stimulants such as *khât*. Amphetamines and other stimulants may be obtained by prescription for the treatment of obesity, attention-deficit/hyperactivity disorder, and narcolepsy. Consequently, prescribed stimulants may be diverted into the illegal market. The effects of amphetamines and amphetamine-like drugs are similar to those of cocaine, such that the criteria for stimulant use disorder are presented here as a single disorder with the ability to specify the particular stimulant used by the individual. Cocaine may be consumed in several preparations (e.g., coca leaves, coca paste, cocaine hydrochloride, and cocaine alkaloids such as freebase and crack) that differ in potency because of varying levels of purity and speed of onset. However, in all forms of the substance, cocaine is the active ingredient. Cocaine hydrochloride powder is usually "snorted" through the nostrils or dissolved in water and injected intravenously.

Individuals exposed to amphetamine-type stimulants or cocaine can develop stimulant use disorder as rapidly as 1 week, although the onset is not always this rapid. Regardless of the route of administration, tolerance occurs with repeated use. Withdrawal symptoms, particularly hypersomnia, increased appetite, and dysphoria, can occur and can enhance craving. Most individuals with stimulant use disorder have experienced tolerance or withdrawal.

Use patterns and course are similar for disorders involving amphetamine-type stimulants and cocaine, as both substances are potent central nervous system stimulants with similar psychoactive and sympathomimetic effects. Amphetamine-type stimulants are longer acting than cocaine and thus are used fewer times per day. Usage may be chronic or episodic, with binges punctuated by brief non-use periods. Aggressive or violent behavior is common when high doses are smoked, ingested, or administered intravenously. Intense temporary anxiety resembling panic disorder or generalized anxiety disorder, as well as paranoid ideation and psychotic episodes that resemble schizophrenia, is seen with high-dose use.

Withdrawal states are associated with temporary but intense depressive symptoms that can resemble a major depressive episode; the depressive symptoms usually resolve within 1 week. Tolerance to amphetamine-type stimulants develops and leads to escalation of the dose. Conversely, some users of amphetamine-type stimulants develop sensitization, characterized by enhanced effects.

Associated Features Supporting Diagnosis

When injected or smoked, stimulants typically produce an instant feeling of well-being, confidence, and euphoria. Dramatic behavioral changes can rapidly develop with stimulant use disorder. Chaotic behavior, social isolation, aggressive behavior, and sexual dysfunction can result from long-term stimulant use disorder.

Individuals with acute intoxication may present with rambling speech, headache, transient ideas of reference, and tinnitus. There may be paranoid ideation, auditory hallucinations in a clear sensorium, and tactile hallucinations, which the individual usually recognizes as drug effects. Threats or acting out of aggressive behavior may occur. Depression, suicidal ideation, irritability, anhedonia, emotional lability, or disturbances in attention and concentration commonly occur during withdrawal. Mental disturbances associated with cocaine use usually resolve hours to days after cessation of use but can persist for 1 month. Physiological changes during stimulant withdrawal are opposite to those of the intoxication phase, sometimes including bradycardia. Temporary depressive symptoms may meet symptomatic and duration criteria for major depressive episode. Histories consistent with repeated panic attacks, social anxiety disorder (social phobia)–like behavior, and generalized anxiety–like syndromes are common, as are eating disorders. One extreme instance of stimulant toxicity is stimulant-induced psychotic disorder, a disorder that resembles schizophrenia, with delusions and hallucinations.

Individuals with stimulant use disorder often develop conditioned responses to drug-related stimuli (e.g., craving on seeing any white powderlike substance). These responses contribute to relapse, are difficult to extinguish, and persist after detoxification.

Depressive symptoms with suicidal ideation or behavior can occur and are generally the most serious problems seen during stimulant withdrawal.

Prevalence

Stimulant use disorder: amphetamine-type stimulants. Estimated 12-month prevalence of amphetamine-type stimulant use disorder in the United States is 0.2% among 12- to 17-year-olds and 0.2% among individuals 18 years and older. Rates are similar among adult males and females (0.2%), but among 12- to 17-year-olds, the rate for females (0.3%) is greater than that for males (0.1%). Intravenous stimulant use has a male-to-female ratio of 3:1 or 4:1, but rates are more balanced among non-injecting users, with males representing 54% of primary treatment admissions. Twelve-month prevalence is greater among 18- to 29-year-olds (0.4%) compared with 45- to 64-year-olds (0.1%). For 12- to 17-year-olds, rates are highest among whites and African Americans (0.3%) compared with Hispanics (0.1%) and Asian Americans and Pacific Islanders (0.01%), with amphetamine-type stimulant use disorder virtually absent among Native Americans. Among adults, rates are highest among Native Americans and Alaska Natives (0.6%) compared with whites (0.2%) and Hispanics (0.2%), with amphetamine-type stimulant use disorder virtually absent among African Americans and Asian Americans and Pacific Islanders. Past-year nonprescribed use of prescription stimulants occurred among 5%–9% of children through high school, with 5%–35% of college-age persons reporting past-year use.

Stimulant use disorder: cocaine. Estimated 12-month prevalence of cocaine use disorder in the United States is 0.2% among 12- to 17-year-olds and 0.3% among individuals 18 years and older. Rates are higher among males (0.4%) than among females (0.1%). Rates are highest among 18- to 29-year-olds (0.6%) and lowest among 45- to 64-year-olds (0.1%). Among adults, rates are greater among Native Americans (0.8%) compared with African Americans (0.4%), Hispanics (0.3%), whites (0.2%), and Asian Americans and Pacific Islanders (0.1%). In contrast, for 12- to 17-year-olds, rates are similar among Hispanics (0.2%), whites (0.2%), and Asian Americans and Pacific Islanders (0.2%); and lower among African Americans (0.02%); with cocaine use disorder virtually absent among Native Americans and Alaska Natives.

Development and Course

Stimulant use disorders occur throughout all levels of society and are more common among individuals ages 12–25 years compared with individuals 26 years and older. First regular use

among individuals in treatment occurs, on average, at approximately age 23 years. For primary methamphetamine–primary treatment admissions, the average age is 31 years.

Some individuals begin stimulant use to control weight or to improve performance in school, work, or athletics. This includes obtaining medications such as methylphenidate or amphetamine salts prescribed to others for the treatment of attention-deficit/hyperactivity disorder. Stimulant use disorder can develop rapidly with intravenous or smoked administration; among primary admissions for amphetamine-type stimulant use, 66% reported smoking, 18% reported injecting, and 10% reported snorting.

Patterns of stimulant administration include episodic or daily (or almost daily) use. Episodic use tends to be separated by 2 or more days of non-use (e.g., intense use over a weekend or on one or more weekdays). "Binges" involve continuous high-dose use over hours or days and are often associated with physical dependence. Binges usually terminate only when stimulant supplies are depleted or exhaustion ensues. Chronic daily use may involve high or low doses, often with an increase in dose over time.

Stimulant smoking and intravenous use are associated with rapid progression to severe-level stimulant use disorder, often occurring over weeks to months. Intranasal use of cocaine and oral use of amphetamine-type stimulants result in more gradual progression occurring over months to years. With continuing use, there is a diminution of pleasurable effects due to tolerance and an increase in dysphoric effects.

Risk and Prognostic Factors

Temperamental. Comorbid bipolar disorder, schizophrenia, antisocial personality disorder, and other substance use disorders are risk factors for developing stimulant use disorder and for relapse to cocaine use in treatment samples. Also, impulsivity and similar personality traits may affect treatment outcomes. Childhood conduct disorder and adult antisocial personality disorder are associated with the later development of stimulant-related disorders.

Environmental. Predictors of cocaine use among teenagers include prenatal cocaine exposure, postnatal cocaine use by parents, and exposure to community violence during childhood. For youths, especially females, risk factors include living in an unstable home environment, having a psychiatric condition, and associating with dealers and users.

Culture-Related Diagnostic Issues

Stimulant use–attendant disorders affect all racial/ethnic, socioeconomic, age, and gender groups. Diagnostic issues may be related to societal consequences (e.g., arrest, school suspensions, employment suspension). Despite small variations, cocaine and other stimulant use disorder diagnostic criteria perform equally across gender and race/ethnicity groups.

Chronic use of cocaine impairs cardiac left ventricular function in African Americans. Approximately 66% of individuals admitted for primary methamphetamine/amphetamine-related disorders are non-Hispanic white, followed by 21% of Hispanic origin, 3% Asian and Pacific Islander, and 3% non-Hispanic black.

Diagnostic Markers

Benzoylecgonine, a metabolite of cocaine, typically remains in the urine for 1–3 days after a single dose and may be present for 7–12 days in individuals using repeated high doses. Mildly elevated liver function tests can be present in cocaine injectors or users with concomitant alcohol use. There are no neurobiological markers of diagnostic utility. Discontinuation of chronic cocaine use may be associated with electroencephalographic changes, suggesting persistent abnormalities; alterations in secretion patterns of prolactin; and downregulation of dopamine receptors.

Short-half-life amphetamine-type stimulants (MDMA [3,4-methylenedioxy-*N*-methylamphetamine], methamphetamine) can be detected for 1–3 days, and possibly up to 4 days

depending on dosage and metabolism. Hair samples can be used to detect presence of amphetamine-type stimulants for up to 90 days. Other laboratory findings, as well as physical findings and other medical conditions (e.g., weight loss, malnutrition; poor hygiene), are similar for both cocaine and amphetamine-type stimulant use disorder.

Functional Consequences of Stimulant Use Disorder

Various medical conditions may occur depending on the route of administration. Intranasal users often develop sinusitis, irritation, bleeding of the nasal mucosa, and a perforated nasal septum. Individuals who smoke the drugs are at increased risk for respiratory problems (e.g., coughing, bronchitis, and pneumonitis). Injectors have puncture marks and "tracks," most commonly on their forearms. Risk of HIV infection increases with frequent intravenous injections and unsafe sexual activity. Other sexually transmitted diseases, hepatitis, and tuberculosis and other lung infections are also seen. Weight loss and malnutrition are common.

Chest pain may be a common symptom during stimulant intoxication. Myocardial infarction, palpitations and arrhythmias, sudden death from respiratory or cardiac arrest, and stroke have been associated with stimulant use among young and otherwise healthy individuals. Seizures can occur with stimulant use. Pneumothorax can result from performing Valsalva-like maneuvers done to better absorb inhaled smoke. Traumatic injuries due to violent behavior are common among individuals trafficking drugs. Cocaine use is associated with irregularities in placental blood flow, abruptio placentae, premature labor and delivery, and an increased prevalence of infants with very low birth weights.

Individuals with stimulant use disorder may become involved in theft, prostitution, or drug dealing in order to acquire drugs or money for drugs.

Neurocognitive impairment is common among methamphetamine users. Oral health problems include "meth mouth" with gum disease, tooth decay, and mouth sores related to the toxic effects of smoking the drug and to bruxism while intoxicated. Adverse pulmonary effects appear to be less common for amphetamine-type stimulants because they are smoked fewer times per day. Emergency department visits are common for stimulant-related mental disorder symptoms, injury, skin infections, and dental pathology.

Differential Diagnosis

Primary mental disorders. Stimulant-induced disorders may resemble primary mental disorders (e.g., major depressive disorder) (for discussion of this differential diagnosis, see "Stimulant Withdrawal"). The mental disturbances resulting from the effects of stimulants should be distinguished from the symptoms of schizophrenia; depressive and bipolar disorders; generalized anxiety disorder; and panic disorder.

Phencyclidine intoxication. Intoxication with phencyclidine ("PCP" or "angel dust") or synthetic "designer drugs" such as mephedrone (known by different names, including "bath salts") may cause a similar clinical picture and can only be distinguished from stimulant intoxication by the presence of cocaine or amphetamine-type substance metabolites in a urine or plasma sample.

Stimulant intoxication and withdrawal. Stimulant intoxication and withdrawal are distinguished from the other stimulant-induced disorders (e.g., anxiety disorder, with onset during intoxication) because the symptoms in the latter disorders predominate the clinical presentation and are severe enough to warrant independent clinical attention.

Comorbidity

Stimulant-related disorders often co-occur with other substance use disorders, especially those involving substances with sedative properties, which are often taken to reduce in-

somnia, nervousness, and other unpleasant side effects. Cocaine users often use alcohol, while amphetamine-type stimulant users often use cannabis. Stimulant use disorder may be associated with posttraumatic stress disorder, antisocial personality disorder, attention-deficit/hyperactivity disorder, and gambling disorder. Cardiopulmonary problems are often present in individuals seeking treatment for cocaine-related problems, with chest pain being the most common. Medical problems occur in response to adulterants used as "cutting" agents. Cocaine users who ingest cocaine cut with levamisole, an antimicrobial and veterinary medication, may experience agranulocytosis and febrile neutropenia.

Stimulant Intoxication

Diagnostic Criteria

A. Recent use of an amphetamine-type substance, cocaine, or other stimulant.
B. Clinically significant problematic behavioral or psychological changes (e.g., euphoria or affective blunting; changes in sociability; hypervigilance; interpersonal sensitivity; anxiety, tension, or anger; stereotyped behaviors; impaired judgment) that developed during, or shortly after, use of a stimulant.
C. Two (or more) of the following signs or symptoms, developing during, or shortly after, stimulant use:
    1. Tachycardia or bradycardia.
    2. Pupillary dilation.
    3. Elevated or lowered blood pressure.
    4. Perspiration or chills.
    5. Nausea or vomiting.
    6. Evidence of weight loss.
    7. Psychomotor agitation or retardation.
    8. Muscular weakness, respiratory depression, chest pain, or cardiac arrhythmias.
    9. Confusion, seizures, dyskinesias, dystonias, or coma.
D. The signs or symptoms are not attributable to another medical condition and are not better explained by another mental disorder, including intoxication with another substance.

Specify **the specific intoxicant** (i.e., amphetamine-type substance, cocaine, or other stimulant).

Specify if:

With perceptual disturbances: This specifier may be noted when hallucinations with intact reality testing or auditory, visual, or tactile illusions occur in the absence of a delirium.

Coding note: The ICD-9-CM code is **292.89.** The ICD-10-CM code depends on whether the stimulant is an amphetamine, cocaine, or other stimulant; whether there is a comorbid amphetamine, cocaine, or other stimulant use disorder; and whether or not there are perceptual disturbances.

For amphetamine, cocaine, or other stimulant intoxication, without perceptual disturbances: If a mild amphetamine or other stimulant use disorder is comorbid, the ICD-10-CM code is **F15.129,** and if a moderate or severe amphetamine or other stimulant use disorder is comorbid, the ICD-10-CM code is **F15.229.** If there is no comorbid amphetamine or other stimulant use disorder, then the ICD-10-CM code is **F15.929.** Similarly, if a mild cocaine use disorder is comorbid, the ICD-10-CM code is **F14.129,** and if a moderate or severe cocaine use disorder is comorbid, the ICD-10-CM code is **F14.229.** If there is no comorbid cocaine use disorder, then the ICD-10-CM code is **F14.929.**

For amphetamine, cocaine, or other stimulant intoxication, with perceptual disturbances: If a mild amphetamine or other stimulant use disorder is comorbid, the ICD-10-CM code is **F15.122,** and if a moderate or severe amphetamine or other stimulant use disorder is comorbid, the ICD-10-CM code is **F15.222.** If there is no comorbid amphetamine or other stimulant use disorder, then the ICD-10-CM code is **F15.922.** Similarly, if a mild cocaine use disorder is comorbid, the ICD-10-CM code is **F14.122,** and if a moderate or severe cocaine use disorder is comorbid, the ICD-10-CM code is **F14.222.** If there is no comorbid cocaine use disorder, then the ICD-10-CM code is **F14.922.**

Diagnostic Features

The essential feature of stimulant intoxication, related to amphetamine-type stimulants and cocaine, is the presence of clinically significant behavioral or psychological changes that develop during, or shortly after, use of stimulants (Criteria A and B). Auditory hallucinations may be prominent, as may paranoid ideation, and these symptoms must be distinguished from an independent psychotic disorder such as schizophrenia. Stimulant intoxication usually begins with a "high" feeling and includes one or more of the following: euphoria with enhanced vigor, gregariousness, hyperactivity, restlessness, hypervigilance, interpersonal sensitivity, talkativeness, anxiety, tension, alertness, grandiosity, stereotyped and repetitive behavior, anger, impaired judgment, and, in the case of chronic intoxication, affective blunting with fatigue or sadness and social withdrawal. These behavioral and psychological changes are accompanied by two or more of the following signs and symptoms that develop during or shortly after stimulant use: tachycardia or bradycardia; pupillary dilation; elevated or lowered blood pressure; perspiration or chills; nausea or vomiting; evidence of weight loss; psychomotor agitation or retardation; muscular weakness, respiratory depression, chest pain, or cardiac arrhythmias; and confusion, seizures, dyskinesias, dystonias, or coma (Criterion C). Intoxication, either acute or chronic, is often associated with impaired social or occupational functioning. Severe intoxication can lead to convulsions, cardiac arrhythmias, hyperpyrexia, and death. For the diagnosis of stimulant intoxication to be made, the symptoms must not be attributable to another medical condition and not better explained by another mental disorder (Criterion D). While stimulant intoxication occurs in individuals with stimulant use disorders, intoxication is not a criterion for stimulant use disorder, which is confirmed by the presence of two of the 11 diagnostic criteria for use disorder.

Associated Features Supporting Diagnosis

The magnitude and direction of the behavioral and physiological changes depend on many variables, including the dose used and the characteristics of the individual using the substance or the context (e.g., tolerance, rate of absorption, chronicity of use, context in which it is taken). Stimulant effects such as euphoria, increased pulse and blood pressure, and psychomotor activity are most commonly seen. Depressant effects such as sadness, bradycardia, decreased blood pressure, and decreased psychomotor activity are less common and generally emerge only with chronic high-dose use.

Differential Diagnosis

Stimulant-induced disorders. Stimulant intoxication is distinguished from the other stimulant-induced disorders (e.g., stimulant-induced depressive disorder, bipolar disorder, psychotic disorder, anxiety disorder) because the severity of the intoxication symptoms exceeds that associated with the stimulant-induced disorders, and the symptoms warrant independent clinical attention. Stimulant intoxication delirium would be distinguished by a disturbance in level of awareness and change in cognition.

Other mental disorders. Salient mental disturbances associated with stimulant intoxication should be distinguished from the symptoms of schizophrenia, paranoid type; bipolar and depressive disorders; generalized anxiety disorder; and panic disorder as described in DSM-5.

Stimulant Withdrawal

Diagnostic Criteria

A. Cessation of (or reduction in) prolonged amphetamine-type substance, cocaine, or other stimulant use.
B. Dysphoric mood and two (or more) of the following physiological changes, developing within a few hours to several days after Criterion A:
    1. Fatigue.
    2. Vivid, unpleasant dreams.
    3. Insomnia or hypersomnia.
    4. Increased appetite.
    5. Psychomotor retardation or agitation.
C. The signs or symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
D. The signs or symptoms are not attributable to another medical condition and are not better explained by another mental disorder, including intoxication or withdrawal from another substance.

Specify **the specific substance that causes the withdrawal syndrome** (i.e., amphetamine-type substance, cocaine, or other stimulant).

Coding note: The ICD-9-CM code is **292.0.** The ICD-10-CM code depends on whether the stimulant is an amphetamine, cocaine, or other stimulant. The ICD-10-CM code for amphetamine or an other stimulant withdrawal is **F15.23,** and the ICD-10-CM for cocaine withdrawal is **F14.23.** Note that the ICD-10-CM code indicates the comorbid presence of a moderate or severe amphetamine, cocaine, or other stimulant use disorder, reflecting the fact that amphetamine, cocaine, or other stimulant withdrawal can only occur in the presence of a moderate or severe amphetamine, cocaine, or other stimulant use disorder. It is not permissible to code a comorbid mild amphetamine, cocaine, or other stimulant use disorder with amphetamine, cocaine, or other stimulant withdrawal.

Diagnostic Features

The essential feature of stimulant withdrawal is the presence of a characteristic withdrawal syndrome that develops within a few hours to several days after the cessation of (or marked reduction in) stimulant use (generally high dose) that has been prolonged (Criterion A). The withdrawal syndrome is characterized by the development of dysphoric mood accompanied by two or more of the following physiological changes: fatigue, vivid and unpleasant dreams, insomnia or hypersomnia, increased appetite, and psychomotor retardation or agitation (Criterion B). Bradycardia is often present and is a reliable measure of stimulant withdrawal.

Anhedonia and drug craving can often be present but are not part of the diagnostic criteria. These symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning (Criterion C). The symptoms must not be attributable to another medical condition and are not better explained by another mental disorder (Criterion D).

Associated Features Supporting Diagnosis

Acute withdrawal symptoms ("a crash") are often seen after periods of repetitive high-dose use ("runs" or "binges"). These periods are characterized by intense and unpleasant feelings of lassitude and depression and increased appetite, generally requiring several days of rest and recuperation. Depressive symptoms with suicidal ideation or behavior can occur and are generally the most serious problems seen during "crashing" or other forms of stimulant withdrawal. The majority of individuals with stimulant use disorder experience a withdrawal syndrome at some point, and virtually all individuals with the disorder report tolerance.

Differential Diagnosis

Stimulant use disorder and other stimulant-induced disorders. Stimulant withdrawal is distinguished from stimulant use disorder and from the other stimulant-induced disorders (e.g., stimulant-induced intoxication delirium, depressive disorder, bipolar disorder, psychotic disorder, anxiety disorder, sexual dysfunction, sleep disorder) because the symptoms of withdrawal predominate the clinical presentation and are severe enough to warrant independent clinical attention.

Other Stimulant-Induced Disorders

The following stimulant-induced disorders (which include amphetamine-, cocaine-, and other stimulant–induced disorders) are described in other chapters of the manual with disorders with which they share phenomenology (see the substance/medication-induced mental disorders in these chapters): stimulant-induced psychotic disorder ("Schizophrenia Spectrum and Other Psychotic Disorders"); stimulant-induced bipolar disorder ("Bipolar and Related Disorders"); stimulant-induced depressive disorder ("Depressive Disorders"); stimulant-induced anxiety disorder ("Anxiety Disorders"); stimulant-induced obsessive-compulsive disorder ("Obsessive-Compulsive and Related Disorders"); stimulant-induced sleep disorder ("Sleep-Wake Disorders"); and stimulant-induced sexual dysfunction ("Sexual Dysfunctions"). For stimulant intoxication delirium, see the criteria and discussion of delirium in the chapter "Neurocognitive Disorders." These stimulant-induced disorders are diagnosed instead of stimulant intoxication or stimulant withdrawal only when the symptoms are sufficiently severe to warrant independent clinical attention.

Unspecified Stimulant-Related Disorder

This category applies to presentations in which symptoms characteristic of a stimulant-related disorder that cause clinically significant distress or impairment in social, occupational, or other important areas of functioning predominate but do not meet the full criteria for any specific stimulant-related disorder or any of the disorders in the substance-related and addictive disorders diagnostic class.

Coding note: The ICD-9-CM code is **292.9.** The ICD-10-CM code depends on whether the stimulant is an amphetamine, cocaine, or another stimulant. The ICD-10-CM code for an unspecified amphetamine- or other stimulant-related disorder is **F15.99.** The ICD-10-CM code for an unspecified cocaine-related disorder is **F14.99.**

Tobacco-Related Disorders

Tobacco Use Disorder
Tobacco Withdrawal
Other Tobacco-Induced Disorders
Unspecified Tobacco-Related Disorder

Tobacco Use Disorder

Diagnostic Criteria

A. A problematic pattern of tobacco use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:

1. Tobacco is often taken in larger amounts or over a longer period than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control tobacco use.
3. A great deal of time is spent in activities necessary to obtain or use tobacco.
4. Craving, or a strong desire or urge to use tobacco.
5. Recurrent tobacco use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., interference with work).
6. Continued tobacco use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of tobacco (e.g., arguments with others about tobacco use).
7. Important social, occupational, or recreational activities are given up or reduced because of tobacco use.
8. Recurrent tobacco use in situations in which it is physically hazardous (e.g., smoking in bed).
9. Tobacco use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by tobacco.
10. Tolerance, as defined by either of the following:
    a. A need for markedly increased amounts of tobacco to achieve the desired effect.
    b. A markedly diminished effect with continued use of the same amount of tobacco.
11. Withdrawal, as manifested by either of the following:
    a. The characteristic withdrawal syndrome for tobacco (refer to Criteria A and B of the criteria set for tobacco withdrawal).
    b. Tobacco (or a closely related substance, such as nicotine) is taken to relieve or avoid withdrawal symptoms.

Specify if:

In early remission: After full criteria for tobacco use disorder were previously met, none of the criteria for tobacco use disorder have been met for at least 3 months but for less than 12 months (with the exception that Criterion A4, "Craving, or a strong desire or urge to use tobacco," may be met).

In sustained remission: After full criteria for tobacco use disorder were previously met, none of the criteria for tobacco use disorder have been met at any time during a period of 12 months or longer (with the exception that Criterion A4, "Craving, or a strong desire or urge to use tobacco," may be met).

Specify if:

On maintenance therapy: The individual is taking a long-term maintenance medication, such as nicotine replacement medication, and no criteria for tobacco use disorder have been met for that class of medication (except tolerance to, or withdrawal from, the nicotine replacement medication).

In a controlled environment: This additional specifier is used if the individual is in an environment where access to tobacco is restricted.

Coding based on current severity: Note for ICD-10-CM codes: If a tobacco withdrawal or tobacco-induced sleep disorder is also present, do not use the codes below for tobacco use disorder. Instead, the comorbid tobacco use disorder is indicated in the 4th character of the tobacco-induced disorder code (see the coding note for tobacco withdrawal or tobacco-induced sleep disorder). For example, if there is comorbid tobacco-induced sleep disorder and tobacco use disorder, only the tobacco-induced sleep disorder code is given, with the 4th character indicating whether the comorbid tobacco use disorder is moderate or severe: F17.208 for moderate or severe tobacco use disorder with tobacco-induced sleep disorder. It is not permissible to code a comorbid mild tobacco use disorder with a tobacco-induced sleep disorder.

Specify current severity:

305.1 (Z72.0) Mild: Presence of 2–3 symptoms.

305.1 (F17.200) Moderate: Presence of 4–5 symptoms.

305.1 (F17.200) Severe: Presence of 6 or more symptoms.

Specifiers

"On maintenance therapy" applies as a further specifier to individuals being maintained on other tobacco cessation medication (e.g., bupropion, varenicline) and as a further specifier of remission if the individual is both in remission and on maintenance therapy. "In a controlled environment" applies as a further specifier of remission if the individual is both in remission and in a controlled environment (i.e., in early remission in a controlled environment or in sustained remission in a controlled environment). Examples of these environments are closely supervised and substance-free jails, therapeutic communities, and locked hospital units.

Diagnostic Features

Tobacco use disorder is common among individuals who use cigarettes and smokeless tobacco daily and is uncommon among individuals who do not use tobacco daily or who use nicotine medications. Tolerance to tobacco is exemplified by the disappearance of nausea and dizziness after repeated intake and with a more intense effect of tobacco the first time it is used during the day. Cessation of tobacco use can produce a well-defined withdrawal syndrome. Many individuals with tobacco use disorder use tobacco to relieve or to avoid withdrawal symptoms (e.g., after being in a situation where use is restricted). Many individuals who use tobacco have tobacco-related physical symptoms or diseases and continue to smoke. The large majority report craving when they do not smoke for several hours. Spending excessive time using tobacco can be exemplified by chain-smoking (i.e., smoking one cigarette after another with no time between cigarettes). Because tobacco sources are readily and legally available, and because nicotine intoxication is very rare, spending a great deal of time attempting to procure tobacco or recovering from its effects is uncommon. Giving up important social, occupational, or recreational activities can occur when an individual forgoes an activity because it occurs in tobacco use–restricted areas. Use of tobacco rarely results in failure to fulfill major role obligations (e.g., interference with work, interference with home obligations), but persistent social or interpersonal problems (e.g., having arguments with others about tobacco use, avoiding social situations because of others' disapproval of tobacco use) or use that is physically hazardous (e.g., smoking in

bed, smoking around flammable chemicals) occur at an intermediate prevalence. Although these criteria are less often endorsed by tobacco users, if endorsed, they can indicate a more severe disorder.

Associated Features Supporting Diagnosis

Smoking within 30 minutes of waking, smoking daily, smoking more cigarettes per day, and waking at night to smoke are associated with tobacco use disorder. Environmental cues can evoke craving and withdrawal. Serious medical conditions, such as lung and other cancers, cardiac and pulmonary disease, perinatal problems, cough, shortness of breath, and accelerated skin aging, often occur.

Prevalence

Cigarettes are the most commonly used tobacco product, representing over 90% of tobacco/nicotine use. In the United States, 57% of adults have never been smokers, 22% are former smokers, and 21% are current smokers. Approximately 20% of current U.S. smokers are nondaily smokers. The prevalence of smokeless tobacco use is less than 5%, and the prevalence of tobacco use in pipes and cigars is less than 1%.

DSM-IV nicotine dependence criteria can be used to estimate the prevalence of tobacco use disorder, but since they are a subset of tobacco use disorder criteria, the prevalence of tobacco use disorder will be somewhat greater. The 12-month prevalence of DSM-IV nicotine dependence in the United States is 13% among adults age 18 years and older. Rates are similar among adult males (14%) and females (12%) and decline in age from 17% among 18- to 29-year-olds to 4% among individuals age 65 years and older. The prevalence of current nicotine dependence is greater among Native American and Alaska Natives (23%) than among whites (14%) but is less among African Americans (10%), Asian Americans and Pacific Islanders (6%), and Hispanics (6%). The prevalence among current daily smokers is approximately 50%.

In many developing nations, the prevalence of smoking is much greater in males than in females, but this is not the case in developed nations. However, there often is a lag in the demographic transition such that smoking increases in females at a later time.

Development and Course

The majority of U.S. adolescents experiment with tobacco use, and by age 18 years, about 20% smoke at least monthly. Most of these individuals become daily tobacco users. Initiation of smoking after age 21 years is rare. In general, some of the tobacco use disorder criteria symptoms occur soon after beginning tobacco use, and many individuals' pattern of use meets current tobacco use disorder criteria by late adolescence. More than 80% of individuals who use tobacco attempt to quit at some time, but 60% relapse within 1 week and less than 5% remain abstinent for life. However, most individuals who use tobacco make multiple attempts such that one-half of tobacco users eventually abstain. Individuals who use tobacco who do quit usually do not do so until after age 30 years. Although nondaily smoking in the United States was previously rare, it has become more prevalent in the last decade, especially among younger individuals who use tobacco.

Risk and Prognostic Factors

Temperamental. Individuals with externalizing personality traits are more likely to initiate tobacco use. Children with attention-deficit/hyperactivity disorder or conduct disorder, and adults with depressive, bipolar, anxiety, personality, psychotic, or other substance use disorders, are at higher risk of starting and continuing tobacco use and of tobacco use disorder.

Environmental. Individuals with low incomes and low educational levels are more likely to initiate tobacco use and are less likely to stop.

Genetic and physiological. Genetic factors contribute to the onset of tobacco use, the continuation of tobacco use, and the development of tobacco use disorder, with a degree of heritability equivalent to that observed with other substance use disorders (i.e., about 50%). Some of this risk is specific to tobacco, and some is common with the vulnerability to developing any substance use disorder.

Culture-Related Diagnostic Issues

Cultures and subcultures vary widely in their acceptance of the use of tobacco. The prevalence of tobacco use declined in the United States from the 1960s through the 1990s, but this decrease has been less evident in African American and Hispanic populations. Also, smoking in developing countries is more prevalent than in developed nations. The degree to which these cultural differences are due to income, education, and tobacco control activities in a country is unclear. Non-Hispanic white smokers appear to be more likely to develop tobacco use disorder than are smokers. Some ethnic differences may be biologically based. African American males tend to have higher nicotine blood levels for a given number of cigarettes, and this might contribute to greater difficulty in quitting. Also, the speed of nicotine metabolism is significantly different for whites compared with African Americans and can vary by genotypes associated with ethnicities.

Diagnostic Markers

Carbon monoxide in the breath, and nicotine and its metabolite cotinine in blood, saliva, or urine, can be used to measure the extent of current tobacco or nicotine use; however, these are only weakly related to tobacco use disorder.

Functional Consequences of Tobacco Use Disorder

Medical consequences of tobacco use often begin when tobacco users are in their 40s and usually become progressively more debilitating over time. One-half of smokers who do not stop using tobacco will die early from a tobacco-related illness, and smoking-related morbidity occurs in more than one-half of tobacco users. Most medical conditions result from exposure to carbon monoxide, tars, and other non-nicotine components of tobacco. The major predictor of reversibility is duration of smoking. Secondhand smoke increases the risk of heart disease and cancer by 30%. Long-term use of nicotine medications does not appear to cause medical harm.

Comorbidity

The most common medical diseases from smoking are cardiovascular illnesses, chronic obstructive pulmonary disease, and cancers. Smoking also increases perinatal problems, such as low birth weight and miscarriage. The most common psychiatric comorbidities are alcohol/substance, depressive, bipolar, anxiety, personality, and attention-deficit/hyperactivity disorders. In individuals with current tobacco use disorder, the prevalence of current alcohol, drug, anxiety, depressive, bipolar, and personality disorders ranges from 22% to 32%. Nicotine-dependent smokers are 2.7–8.1 times more likely to have these disorders than nondependent smokers, never-smokers, or ex-smokers.

Tobacco Withdrawal

Diagnostic Criteria **292.0 (F17.203)**

A. Daily use of tobacco for at least several weeks.
B. Abrupt cessation of tobacco use, or reduction in the amount of tobacco used, followed within 24 hours by four (or more) of the following signs or symptoms:
   1. Irritability, frustration, or anger.
   2. Anxiety.
   3. Difficulty concentrating.
   4. Increased appetite.
   5. Restlessness.
   6. Depressed mood.
   7. Insomnia.
C. The signs or symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
D. The signs or symptoms are not attributed to another medical condition and are not better explained by another mental disorder, including intoxication or withdrawal from another substance.

Coding note: The ICD-9-CM code is 292.0. The ICD-10-CM code for tobacco withdrawal is F17.203. Note that the ICD-10-CM code indicates the comorbid presence of a moderate or severe tobacco use disorder, reflecting the fact that tobacco withdrawal can only occur in the presence of a moderate or severe tobacco use disorder. It is not permissible to code a comorbid mild tobacco use disorder with tobacco withdrawal.

Diagnostic Features

Withdrawal symptoms impair the ability to stop tobacco use. The symptoms after abstinence from tobacco are in large part due to nicotine deprivation. Symptoms are much more intense among individuals who smoke cigarettes or use smokeless tobacco than among those who use nicotine medications. This difference in symptom intensity is likely due to the more rapid onset and higher levels of nicotine with cigarette smoking. Tobacco withdrawal is common among daily tobacco users who stop or reduce but can also occur among nondaily users. Typically, heart rate decreases by 5–12 beats per minute in the first few days after stopping smoking, and weight increases an average of 4–7 lb (2–3 kg) over the first year after stopping smoking. Tobacco withdrawal can produce clinically significant mood changes and functional impairment.

Associated Features Supporting Diagnosis

Craving for sweet or sugary foods and impaired performance on tasks requiring vigilance are associated with tobacco withdrawal. Abstinence can increase constipation, coughing, dizziness, dreaming/nightmares, nausea, and sore throat. Smoking increases the metabolism of many medications used to treat mental disorders; thus, cessation of smoking can increase the blood levels of these medications, and this can produce clinically significant outcomes. This effect appears to be due not to nicotine but rather to other compounds in tobacco.

Prevalence

Approximately 50% of tobacco users who quit for 2 or more days will have symptoms that meet criteria for tobacco withdrawal. The most commonly endorsed signs and symptoms are anxiety, irritability, and difficulty concentrating. The least commonly endorsed symptoms are depression and insomnia.

Development and Course

Tobacco withdrawal usually begins within 24 hours of stopping or cutting down on tobacco use, peaks at 2–3 days after abstinence, and lasts 2–3 weeks. Tobacco withdrawal symptoms can occur among adolescent tobacco users, even prior to daily tobacco use. Prolonged symptoms beyond 1 month are uncommon.

Risk and Prognostic Factors

Temperamental. Smokers with depressive disorders, bipolar disorders, anxiety disorders, attention-deficit/hyperactivity disorder, and other substance use disorders have more severe withdrawal.

Genetic and physiological. Genotype can influence the probability of withdrawal upon abstinence.

Diagnostic Markers

Carbon monoxide in the breath, and nicotine and its metabolite cotinine in blood, saliva, or urine, can be used to measure the extent of tobacco or nicotine use but are only weakly related to tobacco withdrawal.

Functional Consequences of Tobacco Withdrawal

Abstinence from cigarettes can cause clinically significant distress. Withdrawal impairs the ability to stop or control tobacco use. Whether tobacco withdrawal can prompt a new mental disorder or recurrence of a mental disorder is debatable, but if this occurs, it would be in a small minority of tobacco users.

Differential Diagnosis

The symptoms of tobacco withdrawal overlap with those of other substance withdrawal syndromes (e.g., alcohol withdrawal; sedative, hypnotic, or anxiolytic withdrawal; stimulant withdrawal; caffeine withdrawal; opioid withdrawal); caffeine intoxication; anxiety, depressive, bipolar, and sleep disorders; and medication-induced akathisia. Admission to smoke-free inpatient units or voluntary smoking cessation can induce withdrawal symptoms that mimic, intensify, or disguise other disorders or adverse effects of medications used to treat mental disorders (e.g., irritability thought to be due to alcohol withdrawal could be due to tobacco withdrawal). Reduction in symptoms with the use of nicotine medications confirms the diagnosis.

Other Tobacco-Induced Disorders

Tobacco-induced sleep disorder is discussed in the chapter "Sleep-Wake Disorders" (see "Substance/Medication-Induced Sleep Disorder").

Unspecified Tobacco-Related Disorder

292.9 (F17.209)

This category applies to presentations in which symptoms characteristic of a tobacco-related disorder that cause clinically significant distress or impairment in social, occupational, or other important areas of functioning predominate but do not meet the full criteria for any specific tobacco-related disorder or any of the disorders in the substance-related and addictive disorders diagnostic class.

Other (or Unknown) Substance–Related Disorders

Other (or Unknown) Substance Use Disorder
Other (or Unknown) Substance Intoxication
Other (or Unknown) Substance Withdrawal
Other (or Unknown) Substance–Induced Disorders
Unspecified Other (or Unknown) Substance–Related Disorder

Other (or Unknown) Substance Use Disorder

Diagnostic Criteria

A. A problematic pattern of use of an intoxicating substance not able to be classified within the alcohol; caffeine; cannabis; hallucinogen (phencyclidine and others); inhalant; opioid; sedative, hypnotic, or anxiolytic; stimulant; or tobacco categories and leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:

1. The substance is often taken in larger amounts or over a longer period than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control use of the substance.
3. A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects.
4. Craving, or a strong desire or urge to use the substance.
5. Recurrent use of the substance resulting in a failure to fulfill major role obligations at work, school, or home.
6. Continued use of the substance despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of its use.
7. Important social, occupational, or recreational activities are given up or reduced because of use of the substance.
8. Recurrent use of the substance in situations in which it is physically hazardous.
9. Use of the substance is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.

10. Tolerance, as defined by either of the following:
    a. A need for markedly increased amounts of the substance to achieve intoxication or desired effect.
    b. A markedly diminished effect with continued use of the same amount of the substance.
11. Withdrawal, as manifested by either of the following:
    a. The characteristic withdrawal syndrome for other (or unknown) substance (refer to Criteria A and B of the criteria sets for other [or unknown] substance withdrawal, p. 583).
    b. The substance (or a closely related substance) is taken to relieve or avoid withdrawal symptoms.

Specify if:

In early remission: After full criteria for other (or unknown) substance use disorder were previously met, none of the criteria for other (or unknown) substance use disorder have been met for at least 3 months but for less than 12 months (with the exception that Criterion A4, "Craving, or a strong desire or urge to use the substance," may be met).

In sustained remission: After full criteria for other (or unknown) substance use disorder were previously met, none of the criteria for other (or unknown) substance use disorder have been met at any time during a period of 12 months or longer (with the exception that Criterion A4, "Craving, or a strong desire or urge to use the substance," may be met).

Specify if:

In a controlled environment: This additional specifier is used if the individual is in an environment where access to the substance is restricted.

Coding based on current severity: Note for ICD-10-CM codes: If an other (or unknown) substance intoxication, other (or unknown) substance withdrawal, or another other (or unknown) substance–induced mental disorder is present, do not use the codes below for other (or unknown) substance use disorder. Instead, the comorbid other (or unknown) substance use disorder is indicated in the 4th character of the other (or unknown) substance–induced disorder code (see the coding note for other (or unknown) substance intoxication, other (or unknown) substance withdrawal, or specific other (or unknown) substance–induced mental disorder). For example, if there is comorbid other (or unknown) substance–induced depressive disorder and other (or unknown) substance use disorder, only the other (or unknown) substance–induced depressive disorder code is given, with the 4th character indicating whether the comorbid other (or unknown) substance use disorder is mild, moderate, or severe: F19.14 for other (or unknown) substance use disorder with other (or unknown) substance–induced depressive disorder or F19.24 for a moderate or severe other (or unknown) substance use disorder with other (or unknown) substance–induced depressive disorder.

Specify current severity:

305.90 (F19.10) Mild: Presence of 2–3 symptoms.
304.90 (F19.20) Moderate: Presence of 4–5 symptoms.
304.90 (F19.20) Severe: Presence of 6 or more symptoms.

Specifiers

"In a controlled environment" applies as a further specifier of remission if the individual is both in remission and in a controlled environment (i.e., in early remission in a controlled environment or in sustained remission in a controlled environment). Examples of these environments are closely supervised and substance-free jails, therapeutic communities, and locked hospital units.

Diagnostic Features

The diagnostic class other (or unknown) substance use and related disorders comprises substance-related disorders unrelated to alcohol; caffeine; cannabis; hallucinogens (phencyclidine and others); inhalants; opioids; sedative, hypnotics, or anxiolytics; stimulants (including amphetamine and cocaine); or tobacco. Such substances include anabolic steroids; nonsteroidal anti-inflammatory drugs; cortisol; antiparkinsonian medications; antihistamines; nitrous oxide; amyl-, butyl-, or isobutyl-nitrites; betel nut, which is chewed in many cultures to produce mild euphoria and a floating sensation; kava (from a South Pacific pepper plant), which produces sedation, incoordination, weight loss, mild hepatitis, and lung abnormalities; or cathinones (including *khât* plant agents and synthetic chemical derivatives) that produce stimulant effects. Unknown substance-related disorders are associated with unidentified substances, such as intoxications in which the individual cannot identify the ingested drug, or substance use disorders involving either new, black market drugs not yet identified or familiar drugs illegally sold under false names.

Other (or unknown) substance use disorder is a mental disorder in which repeated use of an other or unknown substance typically continues, despite the individual's knowing that the substance is causing serious problems for the individual. Those problems are reflected in the diagnostic criteria. When the substance is known, it should be reflected in the name of the disorder upon coding (e.g., nitrous oxide use disorder).

Associated Features Supporting Diagnosis

A diagnosis of other (or unknown) substance use disorder is supported by the individual's statement that the substance involved is not among the nine classes listed in this chapter; by recurring episodes of intoxication with negative results in standard drug screens (which may not detect new or rarely used substances); or by the presence of symptoms characteristic of an unidentified substance that has newly appeared in the individual's community.

Because of increased access to nitrous oxide ("laughing gas"), membership in certain populations is associated with diagnosis of nitrous oxide use disorder. The role of this gas as an anesthetic agent leads to misuse by some medical and dental professionals. Its use as a propellant for commercial products (e.g., whipped cream dispensers) contributes to misuse by food service workers. With recent widespread availability of the substance in "whippet" cartridges for use in home whipped cream dispensers, nitrous oxide misuse by adolescents and young adults is significant, especially among those who also inhale volatile hydrocarbons. Some continuously using individuals, inhaling from as many as 240 whippets per day, may present with serious medical complications and mental conditions, including myeloneuropathy, spinal cord subacute combined degeneration, peripheral neuropathy, and psychosis. These conditions are also associated with a diagnosis of nitrous oxide use disorder.

Use of amyl-, butyl-, and isobutyl nitrite gases has been observed among homosexual men and some adolescents, especially those with conduct disorder. Membership in these populations may be associated with a diagnosis of amyl-, butyl-, or isobutyl-nitrite use disorder. However, it has not been determined that these substances produce a substance use disorder. Despite tolerance, these gases may not alter behavior through central effects, and they may be used only for their peripheral effects.

Substance use disorders generally are associated with elevated risks of suicide, but there is no evidence of unique risk factors for suicide with other (or unknown) substance use disorder.

Prevalence

Based on extremely limited data, the prevalence of other (or unknown) substance use disorder is likely lower than that of use disorders involving the nine substance classes in this chapter.

Development and Course

No single pattern of development or course characterizes the pharmacologically varied other (or unknown) substance use disorders. Often unknown substance use disorders will be reclassified when the unknown substance eventually is identified.

Risk and Prognostic Factors

Risk and prognostic factors for other (or unknown) substance use disorders are thought to be similar to those for most substance use disorders and include the presence of any other substance use disorders, conduct disorder, or antisocial personality disorder in the individual or the individual's family; early onset of substance problems; easy availability of the substance in the individual's environment; childhood maltreatment or trauma; and evidence of limited early self-control and behavioral disinhibition.

Culture-Related Diagnostic Issues

Certain cultures may be associated with other (or unknown) substance use disorders involving specific indigenous substances within the cultural region, such as betel nut.

Diagnostic Markers

Urine, breath, or saliva tests may correctly identify a commonly used substance falsely sold as a novel product. However, routine clinical tests usually cannot identify truly unusual or new substances, which may require testing in specialized laboratories.

Differential Diagnosis

Use of other or unknown substances without meeting criteria for other (or unknown) substance use disorder. Use of unknown substances is not rare among adolescents, but most use does not meet the diagnostic standard of two or more criteria for other (or unknown) substance use disorder in the past year.

Substance use disorders. Other (or unknown) substance use disorder may co-occur with various substance use disorders, and the symptoms of the disorders may be similar and overlapping. To disentangle symptom patterns, it is helpful to inquire about which symptoms persisted during periods when some of the substances were not being used.

Other (or unknown) substance/medication-induced disorder. This diagnosis should be differentiated from instances when the individual's symptoms meet full criteria for one of the following disorders, and that disorder is caused by an other or unknown substance: delirium, major or mild neurocognitive disorder, psychotic disorder, depressive disorder, anxiety disorder, sexual dysfunction, or sleep disorder.

Other medical conditions. Individuals with substance use disorders, including other (or unknown) substance use disorder, may present with symptoms of many medical disorders. These disorders also may occur in the absence of other (or unknown) substance use disorder. A history of little or no use of other or unknown substances helps to exclude other (or unknown) substance use disorder as the source of these problems.

Comorbidity

Substance use disorders, including other (or unknown) substance use disorder, are commonly comorbid with one another, with adolescent conduct disorder and adult antisocial personality disorder, and with suicidal ideation and suicide attempts.

Other (or Unknown) Substance Intoxication

Diagnostic Criteria

A. The development of a reversible substance-specific syndrome attributable to recent ingestion of (or exposure to) a substance that is not listed elsewhere or is unknown.
B. Clinically significant problematic behavioral or psychological changes that are attributable to the effect of the substance on the central nervous system (e.g., impaired motor coordination, psychomotor agitation or retardation, euphoria, anxiety, belligerence, mood lability, cognitive impairment, impaired judgment, social withdrawal) and develop during, or shortly after, use of the substance.
C. The signs or symptoms are not attributable to another medical condition and are not better explained by another mental disorder, including intoxication with another substance.

Coding note: The ICD-9-CM code is **292.89.** The ICD-10-CM code depends on whether there is a comorbid other (or unknown) substance use disorder involving the same substance. If a mild other (or unknown) substance use disorder is comorbid, the ICD-10-CM code is **F19.129,** and if a moderate or severe other (or unknown) substance use disorder is comorbid, the ICD-10-CM code is **F19.229.** If there is no comorbid other (or unknown) substance use disorder involving the same substance, then the ICD-10-CM code is **F19.929.**

Note: For information on Risk and Prognostic Factors, Culture-Related Diagnostic Issues, and Diagnostic Markers, see the corresponding sections in other (or unknown) substance use disorder.

Diagnostic Features

Other (or unknown) substance intoxication is a clinically significant mental disorder that develops during, or immediately after, use of either a) a substance not elsewhere addressed in this chapter (i.e., alcohol; caffeine; cannabis; phencyclidine and other hallucinogens; inhalants; opioids; sedatives, hypnotics, or anxiolytics; stimulants; or tobacco) or b) an unknown substance. If the substance is known, it should be reflected in the name of the disorder upon coding.

Application of the diagnostic criteria for other (or unknown) substance intoxication is very challenging. Criterion A requires development of a reversible "substance-specific syndrome," but if the substance is unknown, that syndrome usually will be unknown. To resolve this conflict, clinicians may ask the individual or obtain collateral history as to whether the individual has experienced a similar episode after using substances with the same "street" name or from the same source. Similarly, hospital emergency departments sometimes recognize over a few days numerous presentations of a severe, unfamiliar intoxication syndrome from a newly available, previously unknown substance. Because of the great variety of intoxicating substances, Criterion B can provide only broad examples of signs and symptoms from some intoxications, with no threshold for the number of symptoms required for a diagnosis; clinical judgment guides those decisions. Criterion C requires ruling out other medical conditions, mental disorders, or intoxications.

Prevalence

The prevalence of other (or unknown) substance intoxication is unknown.

Development and Course

Intoxications usually appear and then peak minutes to hours after use of the substance, but the onset and course vary with the substance and the route of administration. Generally,

substances used by pulmonary inhalation and intravenous injection have the most rapid onset of action, while those ingested by mouth and requiring metabolism to an active product are much slower. (For example, after ingestion of certain mushrooms, the first signs of an eventually fatal intoxication may not appear for a few days.) Intoxication effects usually resolve within hours to a very few days. However, the body may completely eliminate an anesthetic gas such as nitrous oxide just minutes after use ends. At the other extreme, some "hit-and-run" intoxicating substances poison systems, leaving permanent impairments. For example, MPTP (1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine), a contaminating by-product in the synthesis of a certain opioid, kills dopaminergic cells and induces permanent parkinsonism in users who sought opioid intoxication.

Functional Consequences of Other (or Unknown) Substance Intoxication

Impairment from intoxication with any substance may have serious consequences, including dysfunction at work, social indiscretions, problems in interpersonal relationships, failure to fulfill role obligations, traffic accidents, fighting, high-risk behaviors (i.e., having unprotected sex), and substance or medication overdose. The pattern of consequences will vary with the particular substance.

Differential Diagnosis

Use of other or unknown substance, without meeting criteria for other (or unknown) substance intoxication. The individual used an other or unknown substance(s), but the dose was insufficient to produce symptoms that meet the diagnostic criteria required for the diagnosis.

Substance intoxication or other substance/medication-induced disorders. Familiar substances may be sold in the black market as novel products, and individuals may experience intoxication from those substances. History, toxicology screens, or chemical testing of the substance itself may help to identify it.

Different types of other (or unknown) substance–related disorders. Episodes of other (or unknown) substance intoxication may occur during, but are distinct from, other (or unknown) substance use disorder, unspecified other (or unknown) substance–related disorder, and other (or unknown) substance–induced disorders.

Other toxic, metabolic, traumatic, neoplastic, vascular, or infectious disorders that impair brain function and cognition. Numerous neurological and other medical conditions may produce rapid onset of signs and symptoms mimicking those of intoxications, including the examples in Criterion B. Paradoxically, drug withdrawals also must be ruled out, because, for example, lethargy may indicate withdrawal from one drug or intoxication with another drug.

Comorbidity

As with all substance-related disorders, adolescent conduct disorder, adult antisocial personality disorder, and other substance use disorders tend to co-occur with other (or unknown) substance intoxication.

Other (or Unknown) Substance Withdrawal

Diagnostic Criteria **292.0 (F19.239)**

A. Cessation of (or reduction in) use of a substance that has been heavy and prolonged.
B. The development of a substance-specific syndrome shortly after the cessation of (or reduction in) substance use.
C. The substance-specific syndrome causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
D. The symptoms are not attributable to another medical condition and are not better explained by another mental disorder, including withdrawal from another substance.
E. The substance involved cannot be classified under any of the other substance categories (alcohol; caffeine; cannabis; opioids; sedatives, hypnotics, or anxiolytics; stimulants; or tobacco) or is unknown.

Coding note: The ICD-9-CM code is 292.0. The ICD-10-CM code for other (or unknown) substance withdrawal is F19.239. Note that the ICD-10-CM code indicates the comorbid presence of a moderate or severe other (or unknown) substance use disorder. It is not permissible to code a comorbid mild other (or unknown) substance use disorder with other (or unknown) substance withdrawal.

Note: For information on Risk and Prognostic Factors and Diagnostic Markers, see the corresponding sections in other (or unknown) substance use disorder.

Diagnostic Features

Other (or unknown) substance withdrawal is a clinically significant mental disorder that develops during, or within a few hours to days after, reducing or terminating dosing with a substance (Criteria A and B). Although recent dose reduction or termination usually is clear in the history, other diagnostic procedures are very challenging if the drug is unknown. Criterion B requires development of a "substance-specific syndrome" (i.e., the individual's signs and symptoms must correspond with the known withdrawal syndrome for the recently stopped drug)—a requirement that rarely can be met with an unknown substance. Consequently, clinical judgment must guide such decisions when information is this limited. Criterion D requires ruling out other medical conditions, mental disorders, or withdrawals from familiar substances. When the substance is known, it should be reflected in the name of the disorder upon coding (e.g., betel nut withdrawal).

Prevalence

The prevalence of other (or unknown) substance withdrawal is unknown.

Development and Course

Withdrawal signs commonly appear some hours after use of the substance is terminated, but the onset and course vary greatly, depending on the dose typically used by the person and the rate of elimination of the specific substance from the body. At peak severity, withdrawal symptoms from some substances involve only moderate levels of discomfort, whereas withdrawal from other substances may be fatal. Withdrawal-associated dysphoria often motivates relapse to substance use. Withdrawal symptoms slowly abate over days, weeks, or months, depending on the particular drug and doses to which the individual became tolerant.

Culture-Related Diagnostic Issues

Culture-related issues in diagnosis will vary with the particular substance.

Functional Consequences of Other (or Unknown) Substance Withdrawal

Withdrawal from any substance may have serious consequences, including physical signs and symptoms (e.g., malaise, vital sign changes, abdominal distress, headache), intense drug craving, anxiety, depression, agitation, psychotic symptoms, or cognitive impairments. These consequences may lead to problems such as dysfunction at work, problems in interpersonal relationships, failure to fulfill role obligations, traffic accidents, fighting, high-risk behavior (e.g., having unprotected sex), suicide attempts, and substance or medication overdose. The pattern of consequences will vary with the particular substance.

Differential Diagnosis

Dose reduction after extended dosing, but not meeting the criteria for other (or unknown) substance withdrawal. The individual used other (or unknown) substances, but the dose that was used was insufficient to produce symptoms that meet the criteria required for the diagnosis.

Substance withdrawal or other substance/medication-induced disorders. Familiar substances may be sold in the black market as novel products, and individuals may experience withdrawal when discontinuing those substances. History, toxicology screens, or chemical testing of the substance itself may help to identify it.

Different types of other (or unknown) substance–related disorders. Episodes of other (or unknown) substance withdrawal may occur during, but are distinct from, other (or unknown) substance use disorder, unspecified other (or unknown) substance–related disorder, and unspecified other (or unknown) substance–induced disorders.

Other toxic, metabolic, traumatic, neoplastic, vascular, or infectious disorders that impair brain function and cognition. Numerous neurological and other medical conditions may produce rapid onset of signs and symptoms mimicking those of withdrawals. Paradoxically, drug intoxications also must be ruled out, because, for example, lethargy may indicate withdrawal from one drug or intoxication with another drug.

Comorbidity

As with all substance-related disorders, adolescent conduct disorder, adult antisocial personality disorder, and other substance use disorders likely co-occur with other (or unknown) substance withdrawal.

Other (or Unknown) Substance–Induced Disorders

Because the category of other or unknown substances is inherently ill-defined, the extent and range of induced disorders are uncertain. Nevertheless, other (or unknown) substance–induced disorders are possible and are described in other chapters of the manual with disorders with which they share phenomenology (see the substance/medication-induced mental disorders in these chapters): other (or unknown) substance–induced psychotic disorder ("Schizophrenia Spectrum and Other Psychotic Disorders"); other (or unknown substance–induced bipolar disorder ("Bipolar and Related Disorders"); other (or unknown) substance–induced depressive disorder ("Depressive Disorders"); other (or unknown) substance–induced anxiety disorders ("Anxiety Disorders"); other (or unknown) substance–induced obsessive-compulsive disorder ("Obsessive-Compulsive and Related Disorders"); other (or unknown) substance–induced sleep disorder ("Sleep-Wake

Disorders"); other (or unknown) substance–induced sexual dysfunction ("Sexual Dysfunctions"); and other (or unknown) substance/medication–induced major or mild neurocognitive disorder ("Neurocognitive Disorders"). For other (or unknown) substance–induced intoxication delirium and other (or unknown) substance–induced withdrawal delirium, see the criteria and discussion of delirium in the chapter "Neurocognitive Disorders." These other (or unknown) substance–induced disorders are diagnosed instead of other (or unknown) substance intoxication or other (or unknown) substance withdrawal only when the symptoms are sufficiently severe to warrant independent clinical attention.

Unspecified Other (or Unknown) Substance–Related Disorder

292.9 (F19.99)

This category applies to presentations in which symptoms characteristic of an other (or unknown) substance–related disorder that cause clinically significant distress or impairment in social, occupational, or other important areas of functioning predominate but do not meet the full criteria for any specific other (or unknown) substance–related disorder or any of the disorders in the substance-related disorders diagnostic class.

Non-Substance-Related Disorders

Gambling Disorder

Diagnostic Criteria **312.31 (F63.0)**

A. Persistent and recurrent problematic gambling behavior leading to clinically significant impairment or distress, as indicated by the individual exhibiting four (or more) of the following in a 12-month period:
   1. Needs to gamble with increasing amounts of money in order to achieve the desired excitement.
   2. Is restless or irritable when attempting to cut down or stop gambling.
   3. Has made repeated unsuccessful efforts to control, cut back, or stop gambling.
   4. Is often preoccupied with gambling (e.g., having persistent thoughts of reliving past gambling experiences, handicapping or planning the next venture, thinking of ways to get money with which to gamble).
   5. Often gambles when feeling distressed (e.g., helpless, guilty, anxious, depressed).
   6. After losing money gambling, often returns another day to get even ("chasing" one's losses).
   7. Lies to conceal the extent of involvement with gambling.
   8. Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling.
   9. Relies on others to provide money to relieve desperate financial situations caused by gambling.

B. The gambling behavior is not better explained by a manic episode.

Specify if:

Episodic: Meeting diagnostic criteria at more than one time point, with symptoms subsiding between periods of gambling disorder for at least several months.

Persistent: Experiencing continuous symptoms, to meet diagnostic criteria for multiple years.

Specify if:

In early remission: After full criteria for gambling disorder were previously met, none of the criteria for gambling disorder have been met for at least 3 months but for less than 12 months.

In sustained remission: After full criteria for gambling disorder were previously met, none of the criteria for gambling disorder have been met during a period of 12 months or longer.

Specify current severity:

Mild: 4–5 criteria met.

Moderate: 6–7 criteria met.

Severe: 8–9 criteria met.

Note: Although some behavioral conditions that do not involve ingestion of substances have similarities to substance-related disorders, only one disorder—gambling disorder—has sufficient data to be included in this section.

Specifiers

Severity is based on the number of criteria endorsed. Individuals with mild gambling disorder may exhibit only 4–5 of the criteria, with the most frequently endorsed criteria usually related to preoccupation with gambling and "chasing" losses. Individuals with moderately severe gambling disorder exhibit more of the criteria (i.e., 6–7). Individuals with the most severe form will exhibit all or most of the nine criteria (i.e., 8–9). Jeopardizing relationships or career opportunities due to gambling and relying on others to provide money for gambling losses are typically the least often endorsed criteria and most often occur among those with more severe gambling disorder. Furthermore, individuals presenting for treatment of gambling disorder typically have moderate to severe forms of the disorder.

Diagnostic Features

Gambling involves risking something of value in the hopes of obtaining something of greater value. In many cultures, individuals gamble on games and events, and most do so without experiencing problems. However, some individuals develop substantial impairment related to their gambling behaviors. The essential feature of gambling disorder is persistent and recurrent maladaptive gambling behavior that disrupts personal, family, and/or vocational pursuits (Criterion A). Gambling disorder is defined as a cluster of four or more of the symptoms listed in Criterion A occurring at any time in the same 12-month period.

A pattern of "chasing one's losses" may develop, with an urgent need to keep gambling (often with the placing of larger bets or the taking of greater risks) to undo a loss or series of losses. The individual may abandon his or her gambling strategy and try to win back losses all at once. Although many gamblers may "chase" for short periods of time, it is the frequent, and often long-term, "chase" that is characteristic of gambling disorder (Criterion A6). Individuals may lie to family members, therapists, or others to conceal the extent of involvement with gambling; these instances of deceit may also include, but are not limited to, covering up illegal behaviors such as forgery, fraud, theft, or embezzlement to obtain money with which to gamble (Criterion A7). Individuals may also en-