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Anxiety Disorders

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Updated 2021

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Anxiety Disorders

Anxiety Disorders – Introduction

- Fear → emotional response to real or perceived imminent threat
  - More associated with surges of autonomic arousal (fight or flight)
  - Thoughts of immediate danger, escape behavior
- Anxiety → anticipation of future threat
  - Muscle tension, vigilance in preparation for future danger
  - Cautious or avoidant behaviors
- Pervasive avoidant behaviors may reduce fear/anxiety
- Specific phobia does not have specific cognitive ideation

Separation Anxiety Disorder

Separation Anxiety Disorder – Diagnostic Criteria

A. **Fear/anxiety about separation** from those attached, **developmentally inappropriate**, characterized by **3+/8 sx:**
   1. Distress when anticipating/experiencing separation
   2. Worry about losing/harm to attachment figure
   3. Worry about event causing separation
   4. Refusal to go out (due to fear of separation)
   5. Fear of being alone or without figure
   6. Refusal to sleep away from home or away from figure
   7. Nightmares (about separation)
   8. Physical symptoms (anticipating/experiencing separation)

B. Persistent → **children ≥4 weeks, adults ≥6 months**

C. Significant distress or impairment

D. Not better explained by another mental disorder
   - (Not autism, psychosis, agoraphobia, GAD, IAD)

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Separation Anxiety Disorder – Diagnostic Features

- A1) Excessive **distress when separation** anticipated/occurs
  - Can be separation from home or **major attachment figures**
- A2) **Worry about attachment figures**
  - Well-being, death → esp if separated
  - Need to know whereabouts, want to stay in touch
- A3) Worry about **untoward events to themselves**
  - **Getting lost, kidnapped, accidents** → keeping them separated
- A4) **Refuse to go out by themselves**
- A5) **Fear about being alone** or without attachment figure
  - At home, other settings → **clinging/shadowing behavior**
  - Require someone to accompany into another room in house
- A6) Refusal to go to **sleep without attachment figure**
  - May make way to other's bed, insist someone stay with them
  - **Reluctant to attend camp, sleepover, go on errands**
  - Adults may be uncomfortable traveling independently (hotel rooms)
- A7) **Repeated nightmares**
  - Themes of separation (destruction of family, fires, murder, catastrophes)
- A8) **Physical symptoms** when separation anticipated/occurs
  - Children → headaches, abdominal complains, nausea/vomiting
  - Adolescents/adults → palpitations, dizziness, feeling faint

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Separation Anxiety Disorder – Associated Features

- Children when separated
  - Social withdrawal, apathy, sadness, concentration difficulties
  - Fears of animals, monsters, the dark, muggers, burglars, kidnappers
  - Car accidents, plane travel → **presenting danger to family**
  - Homesick, misery when away from home
  - **School refusal** → academic difficulties, social isolation
  - Anticipating separation → upset, anger, aggression
  - When alone (esp night/dark) → may report **unusual perceptions**
  - May be demanding, intrusive, needing constant attention

- As adults → may appear **dependent + overprotective**

- Excessive demands → family frustration, resentment, conflict

Separation Anxiety Disorder – Prevalence

- 12-month prevalence → decreases with age
  - **Children = 4%** → most prevalent in age <12
  - Adolescents = 1.6%
  - Adults 0.9 – 1.9%

- Gender ratio
  - Clinical sample → **equal**
  - Community → **FEMALE** > male

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Separation Anxiety Disorder – Development & Course

- Normal development
  - Periods of heightened separation anxiety normal
  - May indicate secure attachment relationship
  - **Stranger anxiety at age 1** → normal

- Separation anxiety DISORDER
  - Onset as early as **preschool age** → any time during childhood
    - More rare onset during adolescence
  - **Fluctuating course**
  - **Majority of children become free** of impairment over lifetime
    - But anxiety + avoidance can **persist into adulthood**
  - Many adults **do NOT recall childhood onset** of separation anxiety d/o
    - May recall symptoms

Separation Anxiety Disorder – Development & Course

- Younger children
  - **Avoidance of school**
  - May not express worries
  - Anxiety only when separation occurs

- Older children
  - Worries emerge → often about **specific dangers**
  - Concerns about not being reunited

- Adults
  - Limit ability to cope with changes in circumstances
  - Overly concerned about offspring + spouses
  - Continuous checking → can disrupt work + social experiences

Separation Anxiety Disorder – Risk & Prognostic Factors

- Environmental
  - **Often develops after life stress** involving separation (esp loss)
    - Death, illness, parental divorce, move, immigration, school change, disasters
  - In young adults → leaving parental home, entering romantic relationship, becoming a parent
  - May be associated with **parental overprotection + intrusiveness**

- Genetic & Physiological
  - May be heritable → **heritability = 73%** (community sample)
    - **Higher rates in girls**
  - Enhanced sensitivity to respiratory stimulation using CO2-enriched air

Separation Anxiety Disorder – Culture-Related Issues

- Variation in tolerability of separation
  - Age of leaving parental home
  - Family interdependence

Separation Anxiety Disorder – Gender-Related Issues

- More avoidance of school → **GIRLS**

- More indirect fears → **BOYS**
  - Limited independent activity
  - Reluctance to be away from home alone
  - Distress about spouse/offspring doing things independently
  - Distress when contact with spouse/offspring not possible

Separation Anxiety Disorder – Suicide Risk

- **Maybe** associated with increased risk for suicide
  - Community sample shows association with anxiety disorder
  - NOT SPECIFIC to separation anxiety disorder

Separation Anxiety Disorder – Functional Consequences

- Often limits independent activities (away from attachment figures)
  - Children → avoiding school, camp, sleeping alone
  - Adolescents → avoiding college
  - Adults → not leaving parental home, not traveling, not working outside

Separation Anxiety Disorder – Differential Diagnosis

- Other anxiety disorders
  - GAD, SAD, panic disorder, agoraphobia
- PTSD → fear of separation common after traumatic events
- Illness anxiety disorder
- Bereavement
- Depressive & bipolar disorders
- Oppositional defiant disorder
  - Oppositional behavior persists, unrelated to separation
- Conduct disorder
  - School avoidance (truancy) → usually stays away from home
- Psychotic disorders
  - Can have unusual perceptual experiences in separation anxiety disorder
    - Misperception of actual stimulus, only in certain situations (night)
    - **Reversed** by presence of attachment figure
- Personality disorders
  - Dependent personality disorder → relying on others
  - Borderline personality disorder → fear of abandonment, but also problems with identity, self-direction, interpersonal functioning, impulsivity

Separation Anxiety Disorder – Comorbidity

- Children
  - Highly comorbid with **GAD, specific phobia**

- Adults
  - GAD, specific phobia, SAD, panic disorder, agoraphobia
  - PTSD
  - OCD
  - Depressive disorders
  - Bipolar disorders
  - Personality disorders

Selective Mutism

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Selective Mutism – Diagnostic Criteria

A. Consistent **failure to speak when expected,** in specific social situations, despite speaking in other situations

B. Interferes with **educational/occupational achievement** or **social communication**

C. Duration **≥1 month** (but not first month of school)

D. Not due to lack of knowledge/comfort with spoken language

E. Not due to communication, autism or psychotic disorder

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Selective Mutism – Diagnostic Features

- In social situations
  - **Does NOT initiate speech** or **reciprocally respond**
  - Will speak at home with immediately family
  - Often will NOT speak with close friends or second-degree relatives
  - **Marked high social anxiety**

- At school
  - Often refuse to speak → **academic/educational impairment**
  - Difficult for teachers to assess skills

- May interfere with social communication
  - Children may use **non-spoken or non-verbal means**
  - May only engage in **social encounters not requiring speech**

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Selective Mutism – Associated Features

- Associated features
  - **Excessive shyness, fear of social embarrassment**
  - **Social isolation, withdrawal, clinging**
  - **Compulsive traits, negativism**
  - **Temper tantrums, mild oppositional behavior**

- Communication skills
  - Usually normal language skills
  - May have assoc communication disorder → no specific association

- Other anxiety disorder
  - Selective mutism **almost always** givens as additional dx
  - Most commonly **social anxiety disorder**

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Selective Mutism – Prevalence

- Relatively rare, not included in epidemiological studies

- Point prevalence = 0.03 – 1%
  - Depends on setting (clinic, school, general population), age
  - **NO variation** by sex, race, ethnicity
  - More likely to manifest in **young children**

Selective Mutism – Development & Course

- Onset
  - Usually **before age 5**
  - May not come to clinical attention until entry into school

- Course may be persistent (variable)
  - **Longitudinal course unknown**
  - Many may "outgrow" disorder → **social anxiety sx may remain**

Selective Mutism – Risk & Prognostic Factors

- Temperamental
  - Not well defined → potential factors
    - Neuroticism, behavioral inhibition
    - Parental hx of shyness, social isolation, social anxiety
  - May have subtle **receptive language difficulties** (but still within normal)

- Environmental
  - Parental social inhibition → model for children
  - Parents **overprotective, more controlling**

- Genetic & Physiological
  - Shared genetic factors with **SAD**

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Selective Mutism – Culture-Related Issues

- Immigration to country with different language
  - May refuse to speak due to lack of knowledge of new language
  - Only dx selective mutism if **adequate comprehension** of new language

Selective Mutism – Functional Consequences

- Social impairment
  - No reciprocal social interaction with other children
  - Increasing social isolation with age
  - Academic impairment in school
  - May result in teasing by peers

- May serve as a **compensatory strategy**
  - Decrease anxious arousal in social encounters

Selective Mutism – Differential Diagnosis

- Communication disorders
  - Language disorder, speech sound disorder, stuttering, pragmatic
  - Speech disturbance **NOT RESTRICTED** to specific social situation

- Neurodevelopmental + schizophrenia spectrum disorders
  - Selective mutism must have **ESTABLISHED CAPACITY** to speak

- Social anxiety disorder
  - Can give both dx

Selective Mutism – Comorbidity

- Most common
  - **1) Social anxiety disorder**
  - **2) Separation anxiety disorder**
  - **3) Specific phobia**

- May have **oppositional behavior** → just in speaking situations
- May have **communication delay or disorders**

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Specific Phobia

Specific Phobia – Diagnostic Criteria

A. Marked fear/anxiety about **specific object/situation**

B. Phobic stimulus → almost **always provokes immediate fear**

C. Phobic stimulus → **avoided** or **endured with intense fear**

D. Persistent (≥6 months)

E. Clinical distress or impairment

F. Not better explained by another mental disorder

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Specific Phobia – Specifiers

- *Specify phobic stimulus:*
  - **Animal**
  - **Natural environment**
  - **Blood-injection-injury**
  - **Situational**
  - **Other**

- Can have multiple specific phobias
  - Average → 3
  - 75% → multiple

Specific Phobia – Diagnostic Features

- A) **Intense fear of phobic stimulus**
  - Must differ from normal, transient fears
  - May vary with proximity, anticipation, actual presence
  - May cause **full or limited panic attack** (expected panic attack)

- B) **Evoked immediately** → response can vary by context
  - Different expressions in children (crying, tantrums, freezing, clinging)

- C) Avoidance or enduring with **intense fear**
  - Active avoidance → intentional behaviors, can be subtle

- D) **Out of proportion** to actual danger → sociocultural context
  - Often recognize disproportionate reactions

- E) Persistent → **≥6 months**

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Specific Phobia – Associated Features

- Sympathetic arousal
  - Situational, natural environment, animal specific phobias

- Blood-injection-injury → **vasovagal response (fainting)**
  - Initial brief increase in HR/BP → then drop in BP

- Role of **amygdala + related structures**

Specific Phobia – Prevalence

- 12-month community prevalence

US	**7-9%**
EU	6%
Asian African Latin Am	2-4%

Children	5%
Teens	**16%**
Older	3-5%

- **FEMALES more affected (2:1)** → varies across different stimuli
  - Animal, natural environment, situation → females more

- **Blood-injection-injury → equal**

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Specific Phobia – Development & Course

- Reasons for development → **most cannot recall**
  - Traumatic event, or observation/learning of one
  - Unexpected panic attack in feared situation

- Onset → **early childhood, majority before age 10**
  - Median onset = age 7-11 years → mean = age 10
  - Natural environment, animal, blood-injection-injury → earlier onset
  - **Situational phobias → later onset**
  - **Childhood/adolescent onset → wax + wane**
  - Persistent into adulthood → unlikely to remit

- Diagnosis in children
  - **Different expression of fear + understanding concept of avoidance**
  - Excessive fear common, usually transient, with mild impairment
  - Consider child's developmental stage

Specific Phobia – Development & Course (2)

- Older populations
  - Lower prevalence → but commonly experienced disorder in late life
  - More likely phobias of **natural environment, falling**
  - Tend to **co-occur with medical concerns**
  - Likely to **attribute anxiety to medical conditions**
  - **Atypical manifestation** (depressive + anxiety sx)
  - **Decreased quality of life**
  - **Risk factor for major NCD**

- Choking phobia
  - **Can occur at any age,** following near-choking event

Specific Phobia – Risk & Prognostic Factors

- Temperamental → same as other anxiety disorders
  - **Negative affectivity (neuroticism)**
  - **Behavioral inhibition**

- Environmental
  - **Parental overprotectiveness**
  - **Parental loss + separation**
  - **Physical/sexual abuse**
  - Negative/traumatic encounters with feared object/situation

- Genetic & Physiological
  - More likely same phobia if **first-degree relative** with specific phobia
  - Blood-injection-injury → unique tendency for vasovagal syncope

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Specific Phobia – Culture-Related Diagnostic Issues

- Within US
  - Asians, Latinos → lower rates
  - Whites, African Americans, Native Americans → higher rates

- Asian, African countries
  - Different phobia content, age of onset, gender ratios

Specific Phobia – Suicide Risk

- **60% more likely to make suicide attempt**
  - Likely due to comorbidity (personality disorders, other anxiety disorders)

Specific Phobia – Functional Consequences

- Similar pattern to other anxiety disorders, SUDs

- Older adults
  - Fear of falling → decreased mobility
  - May lead to receiving home supports

- Greater number of phobias → worse impairment + quality of life

- Blood-injection-injury → avoidance of medical care

- Fear of vomiting/choking → may affect dietary intake

Specific Phobia – Differential Diagnosis

- Agoraphobia → fear because of escape may be difficult
  - Specific phobias = fear of direct harm
  - Dx if ≥2 agoraphobic situations (if only 1 situation → dx specific phobia)

- Social Anxiety Disorder → fear of negative evaluation
- Separation Anxiety Disorder → fear of separation
- Panic Disorder → also has unexpected panic attacks
- OCD → if fear is result of obsession
- PTSD → following traumatic event + other PTSD sx
- Eating Disorders → limited to food + food-related cues
- Schizophrenia Disorders → due to delusional thinking

Specific Phobia – Comorbidity

- Rarely seen in medical settings without other psychopathology
  - More frequently seen in non-medical mental health settings
- Frequently associated with **depression in older adults**
- Usually **temporal primary disorder** (early onset)
- Increased risk of developing other disorders
  - Anxiety disorders, mood disorders
  - Substance disorders
  - Somatic symptom disorders
  - Personality disorders → esp **dependent personality disorder**

Social Anxiety Disorder

Social Anxiety Disorder – Diagnostic Criteria

A. Marked fear/anxiety about **social situations** with possible **scrutiny by others**

B. Fear of negative evaluation due to behavior or anxiety sx

C. Social situations → **almost always provoke fear/anxiety**

D. Social situations → **avoided** or **endured with intense fear**

E. Out of proportion to actual threat

F. Persistent (≥6 months)

G. Significant distress/impairment

H. Not due to AMC

I. Not better explained by another mental disorder

J. If AMC, fear is unrelated/excessive

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Social Anxiety Disorder – Specifiers

- *Specify if:*
  - **Performance only**

- Impairing in professional lives, public speaking roles
  - **Do not fear non-performance social situations**

Social Anxiety Disorder – Diagnostic Features

- A) Marked fear/anxiety, social situations, of scrutiny by others
  - Children → **must be peer settings (not just with adults)**
- B) Fear of negative evaluation
  - Judged as anxious, weak, crazy, stupid, boring, intimidating, dirty, unlikable
  - Blushing, trembling, sweating, stumbling over words, staring
  - Fear of offending others → esp in **strong collectivistic cultures**
  - Fear of urinating in public restrooms → **paruresis, "shy bladder syndrome"**
- C) Almost always provoke fear
  - Degree/type **varies by context**, can occur far in advance
  - Children → **crying, tantrums, freezing, clinging, shrinking**
- D) Avoidance or endured with intense fear
  - Can be **subtle** (overpreparing speech, diverting attention, limited eye contact)
- E) Out of proportion to actual risk (sociocultural context)
  - Tend to overestimate negative consequences
- F) Persistent (≥6 months)

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Social Anxiety Disorder – Associated Features

Social Interactions	Social Behaviors
• Inadequately assertive • **Excessively submissive** • Disclose little about self • Less commonly, highly controlling of conversation	• Rigid body posture • Poor eye contact • Overly soft voice • Shy, withdrawn, less open

Personal Life	Other
• Jobs without social contact • Live at home longer • **Men delay marriage** • Women stay as homemakers (despite desire to work outside)	• Self-medication with substances (alcohol at parties) • May exacerbate symptoms of medical illness in older adults (tremor, tachycardia) • **Blushing = hallmark response**

Social Anxiety Disorder – Prevalence

- 12-month prevalence

US	**7%**
EU	2.3%
Rest of world	0.5-2%

Children, adolescents	Same as adults
Older adults (decr with age)	**2-5%**

- Gender differences
  - **FEMALES > males** (odds ratio = 1.5-2.2)
    - More pronounced in adolescents/young adults
  - But in clinical samples → equivalent (slightly higher for males)
    - Gender roles, social expectations, help-seeking behavior in males

- Ethnicities (vs non-Hispanic whites in US)
  - Higher in American Indians
  - Lower in Asian, Latino, African American, Afro-Caribbean

Social Anxiety Disorder – Development & Course

- Onset
  - **Median age = 13 years** → 75% between 8-15 years
  - Can have onset in early childhood (hx social inhibition, shyness)

- Development
  - May follow **stressful or humiliating experience** or may be **insidious**
  - **Rarely first onset in adulthood** → stressful event, life change, new roles
  - May diminish after marriage → may re-emerge after divorce

- Adolescents → broader pattern of fear/avoidance (vs children)
- Young adults → HIGHER levels, specific situations
- Older adults → LOWER levels, but broader range
  - May concern disability, appearance, medical conditions, cognitive deficits

Social Anxiety Disorder – Development & Course

- Course (in community)
  - **30% remission within 1 year**
  - 50% remission within few years
  - 60% without specific treatment → course is several years or longer

- Older adults → detection can be challenging
  - Focus on somatic symptoms, comorbid medical illness
  - Limited insight, changes to social environment/roles
  - Reticence about describing psychological distress

Social Anxiety Disorder – Risk & Prognostic Factors

- Temperamental
  - Behavioral inhibition, fear of negative evaluation
- Environmental
  - Childhood maltreatment, adversity = risk factors (not causative)
- Genetic & Physiological
  - Strong genetic influence → subject to gene-environment influence
  - **SAD = heritable** (less so performance-only anxiety)
    - First degree relatives → 2-6x greater chance

Social Anxiety Disorder – Culture-Related Issues

- *Tai jin kyofusho* (Japan, Korea)
  - Social evaluative concerns, fulfills SAD criteria
  - Fear that individual makes **other people uncomfortable**
  - May fulfill body dysmorphic disorder or delusional disorder

- Immigration status → **lower rates of SAD**

- Strong collectivistic societies
  - High levels of **social anxiety**
  - Lower rates of **social anxiety disorder**

Social Anxiety Disorder – Gender-Related Issues

Male with SAD	Females with SAD
• More likely to **fear dating** • **Paruresis** (urinating in public restroom)	• More **social fears**
• **ODD** • **Conduct disorder** • **Alcohol + illicit drug** use	• **Depressive** disorders • **Bipolar** disorders • **Anxiety** disorders

Social Anxiety Disorder – Functional Consequences

- Elevated rates of **school dropout**
- Decreased **well-being, employment, workplace productivity**
- Lower **socioeconomic status, quality of life** (leisure activities)

- **Single, unmarried, divorced, not having children** (esp men)

- Older adults → impaired caregiving duties, volunteer activities

- Only half of individuals with SAD seek treatment
  - **After 15-20 years** of symptoms

- **Unemployment = strong predictor of SAD persistence**

Social Anxiety Disorder – Differential Diagnosis (1)

- Normative shyness ("social reticence")
  - Common trait → not itself pathological, can be positive
  - Only minority of self-identified shy people **(12%) meet SAD criteria**
- Agoraphobia
  - Fear **because escape might be difficult, no help**
  - **Less likely to be calm when left alone** (SAD more likely be calm)
- Panic Disorder
  - Concern is about panic attacks themselves
- Generalized Anxiety Disorder
  - Social worries → focus **on nature of relationships** (not negative evaluation)
  - Worries about quality of social and **non-social performance**
- Separation Anxiety Disorder
  - Fear of separation from attachment figure
  - **Comfortable** in social settings when **attachment figure present, at home**

Social Anxiety Disorder – Differential Diagnosis (2)

- Specific Phobias → generally not fear of negative evaluation
- Selective Mutism → may fail to speak d/t fear of neg eval
  - Do not fear negative evaluation where **no speaking is required**
- Major Depressive Disorder
  - Concern of neg evaluation b/c they are **bad, not worthy** of being liked
- Body Dysmorphic Disorder
  - Preoccupied with slight **defects/flaws in physical appearance**
  - Can cause social anxiety/avoidance → still **rooted in dysmorphic beliefs**
- Delusional Disorder
  - **Delusions** may focus on being rejected by/offending others
  - SAD usually have good **insight into disproportionate fears**
- Autism Spectrum Disorder
  - **Social anxiety + social communication deficits** = hallmarks of ASD
  - SAD = usually age-appropriate social r/s, social communication capacity

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Social Anxiety Disorder – Differential Diagnosis (3)

- Personality Disorders
  - **Avoidant Personality Disorder** → broader avoidance pattern
    - More comorbid than other personality disorders
    - AvPD more comorbid with SAD than other anxiety disorders
- Oppositional Defiant Disorder
  - Refusal to speak **due to opposition** (vs fear of negative evaluation)
- Other mental disorders
  - **Schizophrenia** → psychotic symptoms present too
  - **Eating disorders** → only if eating disorder sx/behaviors not sole source
  - **OCD** → only if social fears + avoidance independent of OCD
- Other medical conditions
  - **Embarrassing symptoms** (trembling in Parkinson's Disease)
  - If excessive fear of neg eval → dx SAD

Social Anxiety Disorder – Comorbidities

- Common comorbidities → other anxiety disorders, MDD, SUDs
  - **Generally PRECEDES these other disorders**
    - Except specific phobia, separation anxiety disorder
  - Chronic social isolation → may result in MDD
  - Comorbid depression → common in older adults
  - Self-medication with substance for social fears
    - Intoxication/withdrawal symptoms may be source of social fear

- Other common comorbidities
  - Bipolar disorder, body dysmorphic disorder
  - Avoidant PD → more generalized than SAD (not performance only)
  - High-functioning autism
  - Selective mutism

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Panic Disorder

Panic Disorder – Diagnostic Criteria

A. Recurrent, unexpected panic attacks **(4+/13 symptoms)**

B. **1 month** of either **persistent worry or avoidance** related to having panic attacks, following **at least one panic attack**

C. Not due to substance or AMC

D. Not better explained by another mental disorder

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Panic Disorder – Diagnostic Criteria

- A) Recurrent, unexpected panic attacks (4/13 symptoms)
  1. **Palpitations**
  2. **Sweating**
  3. **Tremor**, shaking
  4. Sensation of **shortness of breath**, smothering
  5. Feelings of **choking**
  6. **Chest pain**/discomfort
  7. **Nausea**, abdominal distress
  8. **Dizzy**, unsteady, lightheaded, faint
  9. **Chills** or heat sensations
  10. **Parasthesias**
  11. **Derealization** or depersonalization
  12. Fear of **losing control**
  13. Fear of **dying**

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Panic Disorder – Diagnostic Features

- Panic attack = abrupt surge of intense fear/discomfort
  - Peaks **within minutes**
  - **Unexpected** → no obvious cue/trigger, out of the blue (including nocturnal)
  - **Expected** → situational
  - 50% have both unexpected vs expected
    - May be influenced by cultural interpretation

- Pattern varies widely
  - **Frequency** → daily to monthly (no difference in disorder characteristics)
  - **Full-symptom** (≥4 sx) vs **limited-symptom** (<4 sx)
    - Only one unexpected full-symptom panic attack required for dx

- Worries about panic attacks
  - Physical concerns (life-threatening illness)
  - Social concerns (embarrassment, going crazy, losing control)

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Panic Disorder – Diagnostic Features

- Maladaptive behavior → minimize/avoid panic attacks
  - **Avoiding physical exertion**
  - Reorganizing daily life → **ensuring help is available**
  - Restricting usual daily activities
  - **Avoiding agoraphobia-type situations** (can be separate dx)

Panic Disorder – Associated Features

- **Nocturnal panic attack**
  - **25-33% of panic disorder** → majority also have daytime panic attacks

- Feelings of anxiety common → constant/intermittent
  - Anticipating **catastrophic outcomes from mild physical symptom**
  - Relatively intolerant of **medication side effects**
  - Concerns about ability to complete daily tasks, withstand **daily stressors**
  - May excessively use **substances** to control panic attacks
  - May have **extreme behaviors** aimed to control panic attacks

Panic Disorder – Prevalence

- 12-month prevalence = **2 – 3%** (adults + adolescents, US/EU)
  - In US, lower rates in Latinos, African Americans, Caribbean blacks, Asians
  - Asian, African, Latin American countries = **0.1 – 0.8%**

- **FEMALE** > males (2:1)
  - Gender differentiation occurs in adolescence, observable before age 14

- Children (<14) = <0.4%
- Adolescence = gradual increase
- **Adulthood = PEAK**
- Older adults (>64) = 0.7% (declining)

Panic Disorder – Development & Course

- Onset
  - Median age = **age 20-24**
  - Less common in **childhood** or **after age 45**
    - "Fearful spells" → can be traced to childhood

- Course
  - **Chronic, waxing + waning**
    - May have **episodic outbreaks** (with years of remission between)
    - Can be **continuous severe symptomatology**
  - Minority → full remission, with no relapse within few years
  - Usually complicate other anxiety, depressive, bipolar, SUD

Panic Disorder – Development & Course

- No differences between adolescent vs adult panic disorder
  - Frequently comorbid with other anxiety, depressive, bipolar disorders
  - Adolescents may be less worried or less willing to discuss

- Age-related "dampening" of autonomic nervous system
  - **Lower prevalence in older adults**
  - May be felt as "hybrid" or limited-sx panic attacks + GAD
  - May retrospectively endorse explanations for panic attacks (despite being unexpected)

Panic Disorder – Risk & Prognostic Factors

- Temperamental
  - **Neuroticism, anxiety sensitivity** → worry about panic symptoms and onset
    - Unknown if risk factors for panic disorder
  - "Fearful spells" = limited-sx attacks
    - May be risk factor for later panic attacks, panic disorder
  - Separation anxiety disorder → NOT consistent risk factor

- Environmental
  - **Sexual, physical abuse** MORE common in panic disorder
  - **Smoking** → risk factor for panic attack, panic disorder
  - Often identifiable stressor months before first panic attack

- Genetic & Physiological
  - Multiple genes, but exact genes unknown
  - **Amygdala + related structures** involved
  - Incr risk of panic disorder if **parents have anxiety, depressive, bipolar disorders**
  - Respiratory disturbance **(asthma)** → risk for panic disorder

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Panic Disorder – Culture-Related Issues

- Varies across cultures
  - Vietnamese → "hit by the wind" (atmospheric wind)
  - Latin Americans → "attack of nerves" (interpersonal arguments)
  - Cambodians → "soul loss" (types of exertion)
  - Specific worries about panic attacks vary

- Varied functional impairment
  - Non-Latino whites → less functional impairment (vs African American)
  - Non-Latino Caribbean blacks → higher severity
  - African American, Afro-Caribbean → lower rates
  - ? African descent meet criteria only when substantial severity/impairment

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Panic Disorder – Gender-Related Issues

- Clinical features **DO NOT DIFFER** by gender

- Association with COMT gene in females only

Panic Disorder – Diagnostic Markers

- In panic disorder, MORE susceptible to panic attacks from:
  - **Sodium lactate, caffeine, isoproterenol, yohimbine, CO2, CCK**
  - (vs healthy control, other anxiety disorder, mood disorders)

- Panic attacks related to hypersensitive medullary CO2 detectors
  - Result in hypocapnia

- NOT DIAGNOSTIC of panic disorder

Panic Disorder – Suicide Risk

- Panic attacks, dx panic disorder in past 12 months
  - HIGHER risk of suicide attempts, suicidal ideation in past 12 months

Panic Disorder – Functional Consequences

- High levels of social, occupational, physical disability
  - Economic costs
  - **Highest number of medical visits** among anxiety disorders
  - Strongest effect with **agoraphobia**

- Frequently absent from work/school
  - Can lead to unemployment, school drop out

- Older adults → may impair caregiving duties, volunteering

- Full-symptom panic attacks → greater morbidity

Panic Disorder – Differential Diagnosis

- Other/unspecified anxiety disorder
  - If never experienced full-symptom unexpected panic attack (only limited-sx)

- Anxiety disorder due to AMC
  - Hyperthyroidism, hyperparathyroidism, pheochromocytoma
  - Vestibular dysfunctions, seizure disorders
  - Arrhythmias, SVT, asthma, COPD

- Substance/medication-induced anxiety disorder
  - CNS stimulant intoxication, CNS depressant withdrawal
  - Atypical features (onset after age 45, atypical symptoms)

- Other mental disorders with panic attacks
  - Expected as symptom of other anxiety disorders

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Panic Disorder – Comorbidity

- Usually occurs with other psychopathology
  - Usually earlier age of onset than comorbid disorder
  - May be severity marker of comorbid disorder
  - More frequent in
    - Anxiety disorders **(esp agoraphobia), MDD, bipolar,** ? Mild AUD

- Pts with panic disorder
  - **10 – 65% have comorbid MDD** (one-third depression onset first)
  - Subset develop substance use disorder

- Significant comorbidity with numerous general medication symptoms
  - Dizziness, arrhythmias, hyperthyroidism, asthma, COPD, IBS
  - **Mitral valve prolapse, thyroid disease** → more common (vs gen pop)

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Agoraphobia

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Agoraphobia – Diagnostic Criteria

A. Marked fear/anxiety, about 2+/5 agoraphobic situations
   1. **Public transportation**
   2. **Open spaces**
   3. **Enclosed spaces**
   4. **In a crowd, standing in line**
   5. **Outside home alone**

B. Fear that **escape might be difficult, or no help** available

C. Agoraphobic situations → **almost always provoke fear**

D. Avoided, require companion, or **endured with intense fear**

E. Out of proportion to actual danger

F. Persistent (≥6 months)

G. Cause significant distress or impairment

H. If AMC, fear is clearly excessive

I. Not better explained by another mental disorder

Agoraphobia – Diagnostic Features

- A) Excessive fear triggered by agoraphobic situations
  - Thoughts something terrible may happen
- B) Believe escape might be difficult, or no help available
  - If panic attack symptoms
  - **If embarrassing symptoms** (vomiting, IBS, falling, getting lost)
- C) Almost always → intensity may vary by context
- D) Avoidance, enduring with intense fear
  - Behavioral + cognitive avoidance
  - Can become homebound → companion may help confront situations
- E) Out of proportion → consider sociocultural context
  - Older adults may overattribute fears to age-related constraints
    - Less likely to judge fears as out of proportion
- F) Persistent (≥6 months)

Agoraphobia – Associated Features

- Severe forms
  - **Completely homebound**, unable to leave home
  - **Dependent** on others, even for basic needs

- **Demoralization, depressive sx**

- **Inappropriate self-medication** (alcohol, sedatives)

Agoraphobia – Prevalence

- 12-month prevalence
  - Adolescents + adults = **1.7%**
  - Age >65 = **0.4%**

- **FEMALES** 2x likely (F>M)

- Peak incidence = **late adolescence, early adulthood**

- Prevalence does NOT vary with cultural/racial groups

Agoraphobia – Development & Course

- Preceding panic attacks/disorder (before agoraphobia onset)
  - 30% (community), 50% (clinical samples)
  - Majority of patients with panic disorder have anxiety/agoraphobia before PD onset

- Onset
  - Overall **mean age of onset = 17 years**
    - Without preceding panic attacks/disorder = 25-29 years
  - **Two-thirds before age 35** → esp late adolescence, early adulthood
  - **Second peak after age 40**
  - Childhood onset = **rare**

- Course
  - **Persistent + chronic** → complete remission 10% (untreated)
  - Increased risk of secondary MDD, PDD, SUDs

Agoraphobia – Development & Course

- Clinical features consistent across lifespan
  - Type of agoraphobic situations/cognitions may vary
  - Children – fear of getting lost, adult – worry about panic sx, older adults – fear of falls

- Fear out of proportion to real danger
  - Children → low prevalence
  - Adolescents (males) → less open discussion
  - Older adults → mainly somatic symptoms, motor disturbances

Agoraphobia – Risk & Prognostic Factors

- Temperamental
  - Behavioral inhibition + neurotic disposition
  - **Negative affectivity**
  - **Anxiety sensitivity** (believing anxiety symptoms are harmful)

- Environmental
  - Negative childhood events (separation, parent death)
  - Stressful events (attacked, mugged)
  - Family climate, child-rearing behavior → **reduced warmth, overprotection**

- Genetic & Physiological
  - Heritability = 61%
  - **Strongest + most specific association** with the genetic factor that represents **proneness to phobias** (vs other various phobias)

Agoraphobia – Gender-Related Issues

- Different pattern of comorbid disorders by gender
  - Males → more SUDs

Agoraphobia – Functional Consequences

- Considerable impairment/disability (irrespective of comorbidities)
  - Role functioning
  - Work productivity
  - Disability days

- **More than one-third = completely homebound**, unable to work

Agoraphobia – Differential Diagnosis

- Specific phobia, situational type
  - Limited to one agoraphobic situation
  - Cognitive ideation → fear of being directly harmed
- Social anxiety disorder → fear of negative evaluation
- Panic disorder → no avoidance of 2+ agoraphobic situations
- Acute stress disorder, PTSD → traumatic event
- Major depressive disorder
  - May be homebound due to apathy, low energy, low self-esteem, anhedonia
- Other medical conditions
  - Neurodegenerative disorders with motor disturbances (Parkinson's, MS)
  - Cardiovascular disorders
  - May avoid situation due to realistic concerns (only dx if clearly in excess)
    - Fainting with TIAs, diarrhea in Crohn's disease

Agoraphobia – Comorbidity

- Majority have other mental disorders
  - Most frequent:
    - Anxiety disorders → specific phobia, panic disorder, SAD
    - Depressive disorders → MDD
    - PTSD
    - AUD

- Other anxiety disorders frequently **precede**
- Depressive disorders, SUD typically **occur secondary**

Generalized Anxiety Disorder

GAD – Diagnostic Criteria

A. **Excessive anxiety/worry, ≥6 months, number of topics**
B. **Difficult to control** the worry

C. **3/6 assoc anxiety symptoms for past 6 mo (only 1 for child)**
   1. Restlessness, keyed up, on edge
   2. Easily fatigued
   3. Concentration difficulties
   4. Irritability
   5. Muscle tension
   6. Sleep disturbance

D. Significant distress/impairment
E. Not due to substance or AMC
F. Not better explained by another mental disorder

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GAD – Diagnostic Features

- A) Excessive anxiety/worry, about number of topics
  - Out of proportion to actual risk/impact of event
  - Everyday, **routine life circumstances** (job, health, finances, family members, misfortune to children, minor matters, chores, being late)
  - Children → worry about **competence, performance quality**
  - Focus of worry may shift

- B) Difficult to control worry
  - Distinguish from nonpathological anxiety
    - Not manageable → interferes with functioning/attention
    - More pervasive, pronounced, distressing, longer duration, no triggers
    - Greater range of worries → more likely meeting GAD criteria

- C) 3/6 accompanying symptoms (only 1 for children)

DSM5

GAD – Associated Features

- Muscle tension
  - Trembling, twitching, feeling shaky, muscle aches, soreness

- Somatic symptoms
  - Sweating, nausea, diarrhea, exaggerated startle response
  - Irritable bowel syndrome
  - Headaches

- Autonomic hyperarousal → **LESS COMMON in GAD**
  - Incr HR, shortness of breath, dizziness → panic disorder

GAD – Prevalence

- 12-month prevalence (US)
  - Adolescents = **1%**
  - Adults = **3%**

- Lifetime morbid risk = **9%**

- **FEMALES 2x** as likely

- Peaks in **middle age** → declines in later years

- More frequent in **European descent** (vs non-European)
- More likely in **developed countries** (vs non-developed)

GAD – Development & Course

- Onset → **median age = 30 years** (very broad range)
  - **Later than other anxiety disorders** (rarely before adolescence)
  - Excessive anxiety/worry may occur early → **anxious temperament**

- Course → chronic → **wax/wanes** across lifespan
  - **Very low rates of full remission**
  - Earlier onset → more comorbidity, more impairment
    - Younger adults → experience greater severity of symptoms

- Clinical expression relatively consistent across lifespan
  - Main difference is **content of worry (age-appropriate)**
  - Children/adolescents → performance quality, **punctuality,** catastrophes
    - May be overly conforming, perfectionist, unsure of self, redo tasks
    - Overzealous in seeking reassurance, approval
  - Elderly → worry about physical disease, **safety, falling**

DSM5

GAD – Risk & Prognostic Factors

- Temperamental
  - Negative affectivity (neuroticism)
  - Behavioral inhibition
  - Harm avoidance

- Environmental
  - Associated with childhood adversities, **parental overprotection**
  - Not necessary or sufficient for diagnosis

- Genetic & Physiological
  - Genetics = **one-third of risk**
  - Overlap with risk of neuroticism
  - Shared with other anxiety, mood disorders **(esp MDD)**

DSM5

GAD – Culture-Related Issues

- Considerable cultural variation in **expression of GAD**
  - Somatic symptoms vs cognitive symptoms
  - Differences may be more evident on initial presentation

- No clear cultural propensity for excessive worrying
  - Topic can be culture specific → consider if actually excessive

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GAD – Gender-Related Issues

- More frequently diagnosed in **FEMALES**
  - Clinical samples → 55-60% female
  - Epidemiological studies → 66% female

- **Similar symptoms in both genders**

- <u>Different comorbidity patterns</u>
  - Females → **anxiety disorders, unipolar depressive disorders**
  - Males → **SUDs**

GAD – Functional Consequences

- Takes time + energy → **effects efficiency + speed** of tasks
  - Associated symptoms contribute to impairment
  - May impair individuals to encourage confidence in their children

- Significant disability + distress → **independent of comorbidities**
  - Most community pts = moderate-seriously disabled

GAD – Differential Diagnosis

- Anxiety Disorder due to AMC
  - Eg. Pheochromocytoma, hyperthyroidism
- Sub/Med-Induced Anxiety Disorder

- Social Anxiety Disorder → negative evaluation by others
- OCD → inappropriate ideas, intrusive thoughts/urges/images
  - GAD → more forthcoming about problems & abnormal excessiveness of worry
- PTSD → anxiety often present (not GAD if PTSD better explains)
- Adjustment Disorder → identifiable stressor, not persistent

- Depressive, bipolar, psychotic disorders
  - Do not diagnose if only occurs during course of these conditions

GAD – Comorbidity

- **Other anxiety disorders, unipolar depressive disorders**
  - Shared temperament underpinnings (neuroticisms, emotional lability)

- Less common
  - Substance use, conduct, psychotic disorders
  - Neurodevelopmental, neurocognitive disorders

Substance/Medication-Induced Anxiety Disorder

Sub/Med-Induced Anxiety Disorder – Diagnostic Criteria

A. **Anxiety or panic attacks** predominate clinical picture

B. History, physical exam, lab findings of:
- Symptom onset **during/soon after** → intoxication, withdrawal, exposure
- Substance/medication **capable** of producing symptoms

C. Not non-substance/medication-induced
- Symptom onset preceding sub/med use
- Symptom persistence after cessation of sub/med use/intox/withdrawal
- Other evidence (previous non-sub/med-induced episodes)

D. Not exclusively during **delirium**

E. Significant distress or impairment

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Sub/Med-Induced Anxiety Disorder – Specifiers

- *Specify substance:*
  - Alcohol
  - Caffeine
  - Cannabis
  - PCP
  - Other hallucinogen
  - Inhalant
  - Opioid
  - Sedative, hypnotic or anxiolytic
  - Amphetamine (or other stimulant)
  - Cocaine
  - Other (or unknown) substance

- *Specify onset:*
  - **With onset during intoxication**
  - **With onset during withdrawal**

Sub/Med-Induced Anxiety Disorder – Diagnostic Features

- Anxiety or panic → due to effects of substance/medication
  - Symptoms during or soon after intoxication/withdrawal
  - Substance must be capable of producing symptoms
  - Onset while receiving medication → improve with discontinuation

Sub/Med-Induced Anxiety Disorder – Associated Features

Intoxication	Withdrawal	Both
• Caffeine • Cannabis • PCP • Hallucinogens • Inhalants	• Opioids • Sedatives • Hypnotics • Anxiolytics	• Alcohol • Stimulants • Cocaine

- Medications
  - Anesthetics, analgesics, sympathomimetics, bronchodilators, insulin, OCP
  - Anticholinergics, thyroid preparations, antihistamines, corticosteroids
  - Antiparkinsonian medications, antihypertensives, cardiovascular meds
  - Anticonvulsants, lithium, antipsychotics, antidepressants

- Heavy metals/toxins
  - Organophosphate insecticide, nerve gas, **carbon monoxide, CO2**
  - Volatile substances (gasoline, paint)

Sub/Med-Induced Anxiety Disorder – Prevalence

- 12-month prevalence = not clear
  - General population = 0.002% (rare)
  - Clinical population = likely higher

Sub/Med-Induced Anxiety Disorder – Diagnostic Marker

- May be useful to measure substance intoxication

Sub/Med-Induced Anxiety Disorder – Differential Diagnosis

- Substance intoxication/withdrawal
  - Anxiety symptoms common
  - Sub-induced anxiety disorder if sufficiently severe → can have both dx
- Other anxiety disorder
  - Sub-induced anxiety disorders → tend to have atypical symptoms (i.e. late age of onset)
- Delirium
- Anxiety disorder due to AMC
  - Can have both dx

Anxiety Disorder due to AMC

Anxiety Disorder due to AMC – Diagnostic Criteria

A. Anxiety or panic attacks predominate clinical picture

B. Evidence of **direct pathophysiological consequence** of AMC

C. Not better explained by another mental disorder

D. Not exclusively during delirium

E. Significant distress or impairment

DSM5

Anxiety Disorder due to AMC – Diagnostic Features

- Clinically significant anxiety/panic → physiological effect of AMC
  - Not adjustment disorder
  - Often prominent **physical component** (e.g. shortness of breath)

- First establish presence of general medical condition
  - Must be **etiological related**, through physiological mechanism
  - Temporal association
  - Atypical features (age of onset, no family hx)

Anxiety Disorder due to AMC – Associated Features

- <u>Known causative medical conditions</u>
  - Endocrine → hyperthyroidism, pheochromocytoma, **hypoglycemia**, hyperadrenocortisolism
  - Cardiovascular → CHF, pulmonary embolism, arrhythmias, AFib
  - Respiratory → COPD, asthma, pneumonia
  - Metabolic → B12 deficiency, **porphyria**
  - Neurological → neoplasms, **vestibular dysfunction**, encephalitis, seizures

Anxiety Disorder due to AMC – Prevalence

- Prevalence = not clear
  - Higher rates of anxiety among those with asthma, hypertension, ulcers, arthritis
  - Not necessarily “due to AMC”

Anxiety Disorder due to AMC – Development & Course

- Pertains to underlying illness
  - Does not exclude primary anxiety disorders

- Older adults
  - May develop independent anxiety disorders **(secondary to chronic illness)**

Anxiety Disorder due to AMC – Diagnostic Markers

- Pertains to underlying illness

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Anxiety Disorder due to AMC – Differential Diagnosis

- Delirium (exclusion)
- Anxiety can occur as physiological consequence of Major NCD (dementia)
- Another specific mental disorder due to AMC
- Substance/medication-induced anxiety disorder
- Other anxiety disorder → can exacerbate medical conditions
- Illness anxiety disorder
  - Worry about illness, pain, bodily perceptions
  - May or may not have diagnosed medical conditions
  - NOT physiological related medical condition
- Adjustment disorders → maladaptive stress responses
- Associated feature of another mental disorder
- Other/unspecified anxiety disorder

Other Specified Anxiety Disorders

Other Specified Anxiety Disorders

- Does not meet full criteria for any anxiety disorder
- Clinician chooses to communicate specific reason

- Limited-symptom panic attacks
- Generalized anxiety, not occurring more days than not
- Khyal cap (wind attacks)
- Ataque de nervios (attack of nerves)

Unspecified Anxiety Disorder

Unspecified Anxiety Disorder

- Does not meet full criteria for any anxiety disorder
- Clinician chooses NOT to communicate specific reason