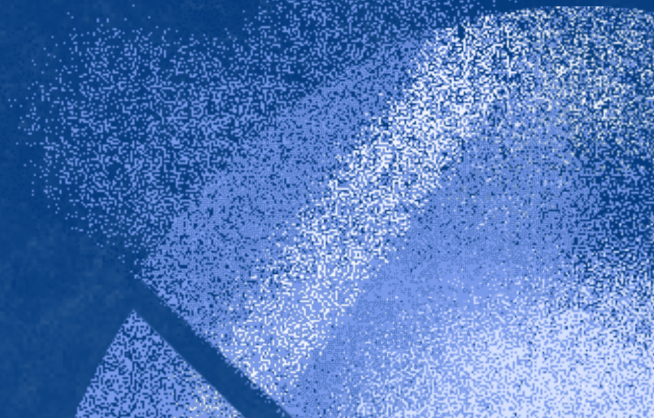




Anxiety Disorders



Fear and Anxiety Along the Continuum

FEAR: An immediate emotional response to danger or perceived threat in the environment.

ANXIETY: Future-oriented apprehension, tension, or sense of dread.

FEAR

Adaptive

Matches the real threat.
Subsides once it passes.
Drives useful action.

Mild Anxiety

Common

Somewhat unrealistic.
A bit more than warranted.
Lingers past the threat.

Likely Disorder

Watch Closely

Moderately unrealistic.
Clearly excessive.
Persists; behavior suffers.

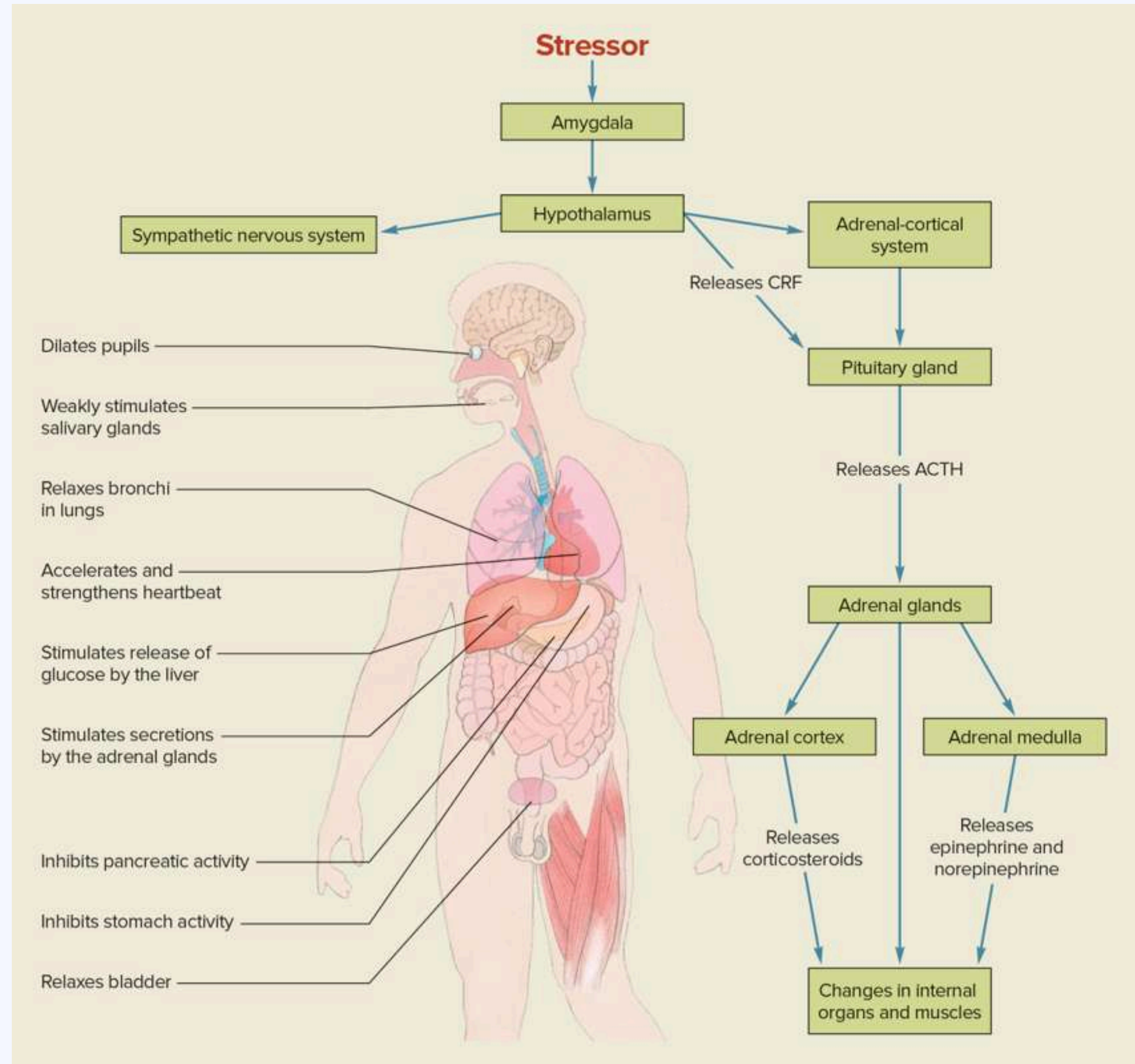
Diagnosable

Meets criteria

Completely unrealistic.
Chronic anticipatory dread.
Dangerous or impairing.

* * * The Body's Alarm System: Fight-or-Flight

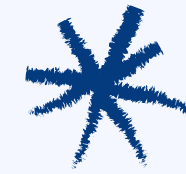
- **Fight-or-flight response:** Set of physical and psychological responses that help us fight a threat or flee from it.
- **Autonomic nervous system:** Part of the nervous system that controls bodily functions not consciously directed.
- **Adrenal-cortical system:** Hormonal system situated in the adrenal cortex and activated by the hypothalamus.
- **Cortisol:** Stress hormone released by adrenal glands.



A Shared Symptom Compass

SOMATIC

- Tense muscles
- Racing heart
- Rapid breathing
- Sweating



EMOTIONAL

- Dread
- Terror
- Irritability
- Restlessness

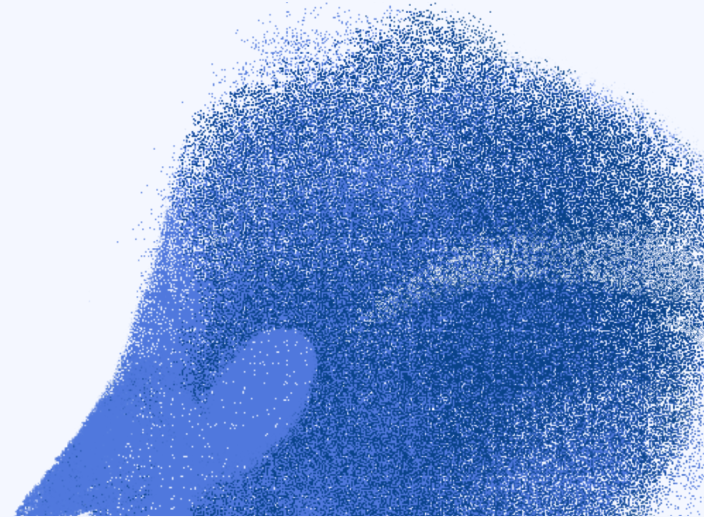
COGNITIVE

- Anticipating harm
- Exaggerating danger
- Hypervigilance
- Fear of losing control

BEHAVIORAL

- Escape
- Avoidance
- Freezing
- Aggression

Types Of Anxiety



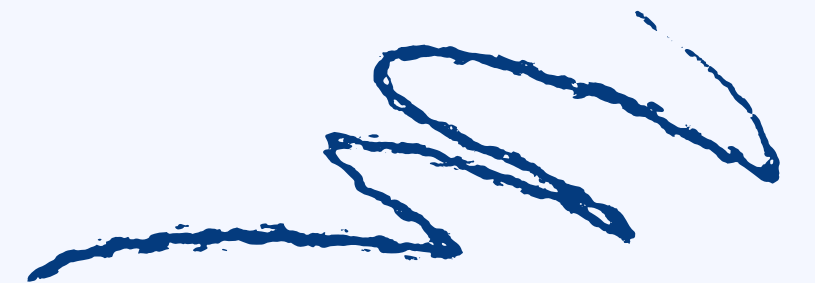
Panic Disorder

Social Anxiety
Disorder

Generalized
Anxiety Disorder (GAD)

Separation Anxiety
Disorder

Selective Mutism



The Case of Celia



Celia is a 19-year-old that was working at McDonald's. As she was handing a customer a Big Mac, the earth seemed to open up beneath her.

Her heart began to pound, she felt she was suffocating, she broke into a sweat, and she was sure she was going to have a heart attack and die.

After about 20 minutes of terror, the panic subsided. Trembling, she got in her car, raced home, and barely left the house for the next 3 months.

Since that time, Celia has had about three attacks a month. She does not know when they are coming. During them she feels dread, searing chest pain, suffocating and choking, dizziness, and shakiness. She sometimes thinks this is all not real and she is going crazy. She also thinks she is going to die.

Formalizing the Panic Attack

PANIC ATTACK

An abrupt surge of intense fear or discomfort that peaks within minutes — with 4 or more symptoms from these clusters occurring together.

It can erupt from a calm state or build from existing anxiety. Culture-specific symptoms (e.g., uncontrollable crying, neck soreness) can appear too, but don't count toward the required four.

Cardiopulmonary

Palpitations
Chest pain
Shortness of breath
Choking

Physical / Neurological

Trembling
Sweating
Dizziness
Chills or heat
Numbness

Gastrointestinal

Nausea or
Abdominal distress

Cognitive

Derealization
Fear of losing control
Fear of "going crazy"
Fear of dying

Panic Disorder

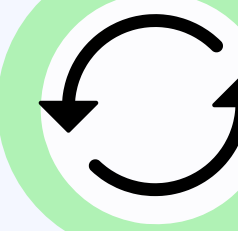
- A single panic attack isn't panic disorder.
- At least one attack must be followed by a month or more of persistent worry about future attacks (or their consequences), OR a significant, maladaptive change in behavior aimed at avoiding them.



1+ month aftermath



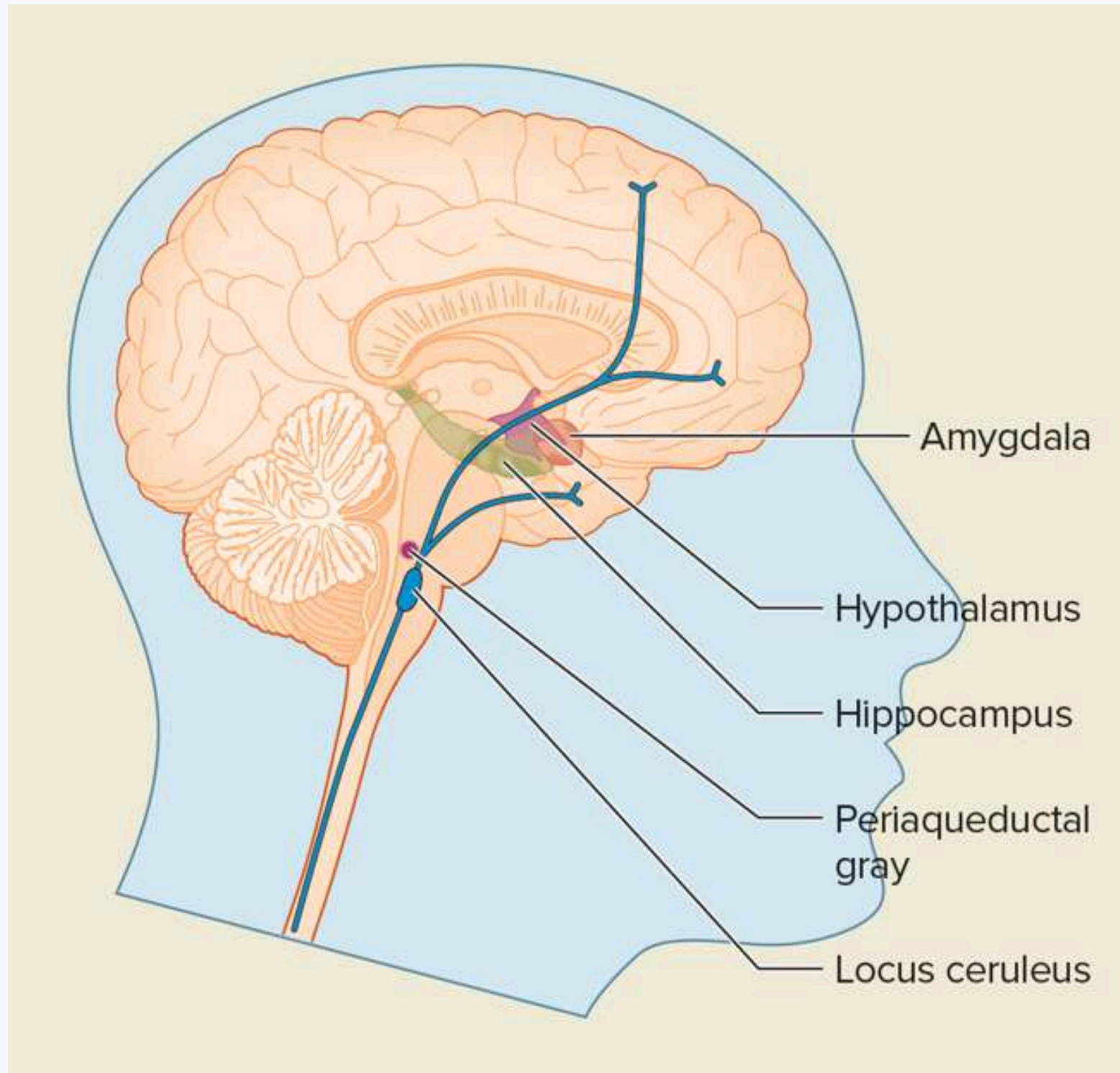
Not substance/medical



Not another disorder

Panic-like symptoms can come from hyperthyroidism, cardiac issues, or stimulant use — and panic attacks can occur inside other disorders (e.g., only in feared social situations, as part of PTSD). The diagnosis requires ruling these out first.

Biological Factors



- Autonomic branch of our alarm system appears to be dysregulated at its source.
- People with panic disorder show dysregulation of norepinephrine systems in the **locus ceruleus**, a brainstem region central to the emergency response.
- Genetics, hormones, and brain structure (amygdala, hippocampus) all contribute — which is why **anxiolytic** medications, which calm this circuitry, can reduce symptoms.

Cognitive Factors

Bodily Sensation

A racing heart, slight dizziness
— ordinary, often harmless.

Anxiety Sensitivity

Belief that anxiety symptoms
themselves are dangerous.

People prone to panic
don't just have sensitive
bodies — they have a
mind that interprets
ordinary sensations as
catastrophic.

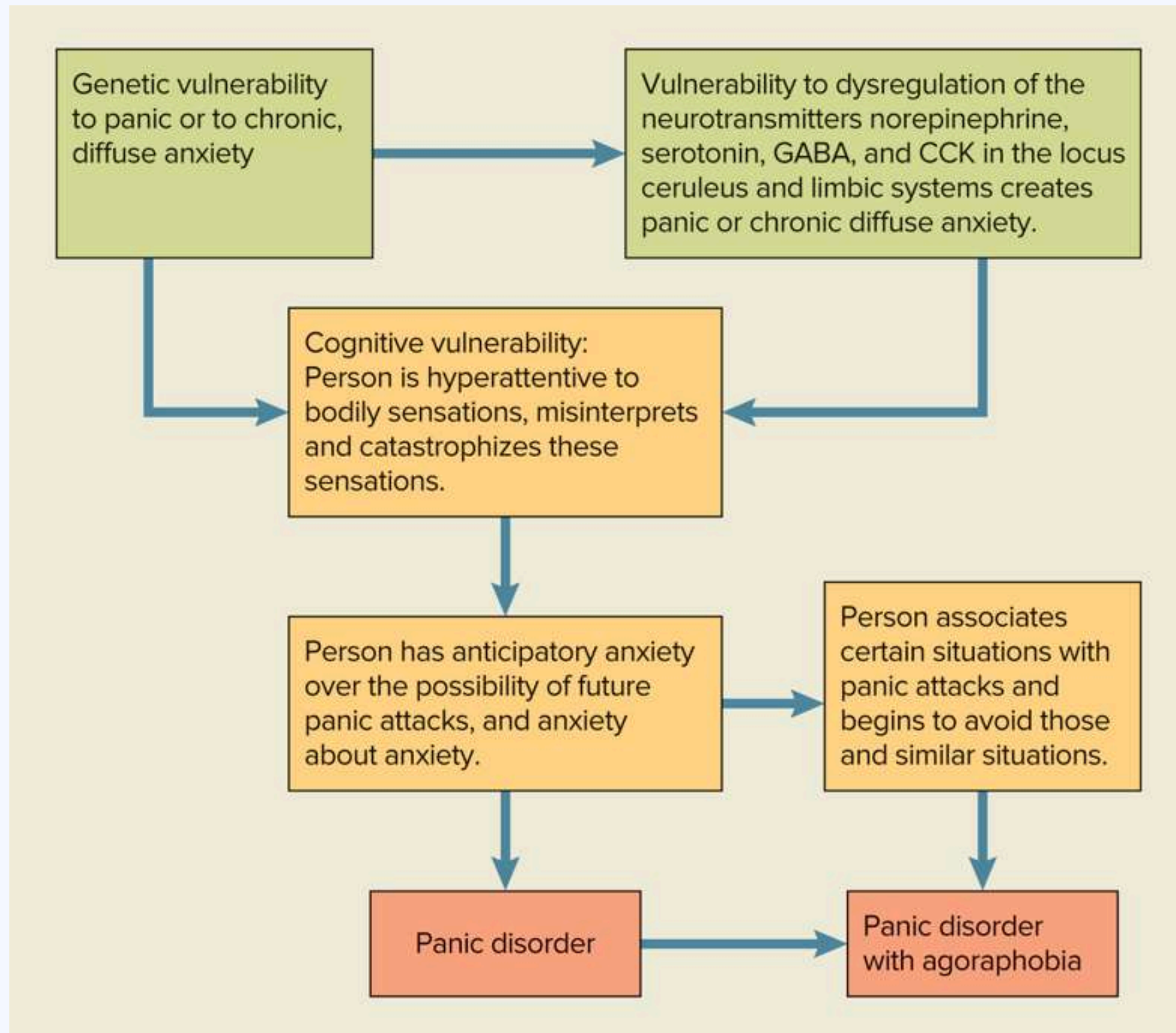
That bodily cue becomes a
learned trigger for the next
attack.

Interoceptive Conditioning

"I'm having a heart attack" —
exaggerating the sensation's
meaning.

Catastrophic Misreading

An Integrated Model of Panic Disorder



CONDITIONED AVOIDANCE RESPONSE:

- Behavior that is reinforced because it allows individuals to avoid situations that cause anxiety.
- People associate certain situations or cues with symptoms of a panic attack such that future exposure to those situations or cues triggers symptoms.
- Sufferers then prevent having symptoms by avoiding those situations or cues. The reduction in anxiety reinforces the avoidance behavior.

Treatment for Panic Disorder

BIOLOGICAL

- SSRIs, SNRIs, and tricyclic antidepressants target the serotonin/norepinephrine systems.
- Effective for many — but relapse is common when medication is discontinued.

COGNITIVE- BEHAVIORAL

- First-line recommended treatment.
- Breathing retraining, practiced while inducing panic symptoms in-session.
- Directly challenges catastrophizing thoughts about bodily sensations.

Does Celia Meet Criteria?



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When Anxiety Begins Early

Panic disorder tends to announce itself suddenly, often in adulthood. The next two conditions look almost opposite: they typically begin in early childhood, and center on attachment rather than bodily sensation.

Separation anxiety disorder and selective mutism both involve a child's alarm system firing in response to relationships, not physical danger — losing a caregiver, or being expected to speak in front of others.

Same continuum, same four-domain compass — just a very different trigger, and a developmental stage where the stakes (school, friendships, independence) are especially high.

Separation Anxiety Disorder

Syndrome of childhood and adolescence marked by abnormal fear or worry of becoming separated from one's caregiver(s) as well as clinging behaviors in the presence of caregiver(s).

WORRY ABOUT LOSS

- Distress anticipating separation.
- Fear of harm to attachment figures.
- Fear of an event causing separation (getting lost, kidnapped).

REFUSAL & CLINGING

- Won't go to school/out/elsewhere.
- Fear of being alone.
- Refuses to sleep away from attachment figure.

PHYSICAL & NIGHTTIME

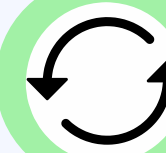
- Nightmares about separation
- Headaches, stomachaches, nausea when separation occurs or is anticipated.



4+ wks (kids) /
6+ mo (adults)

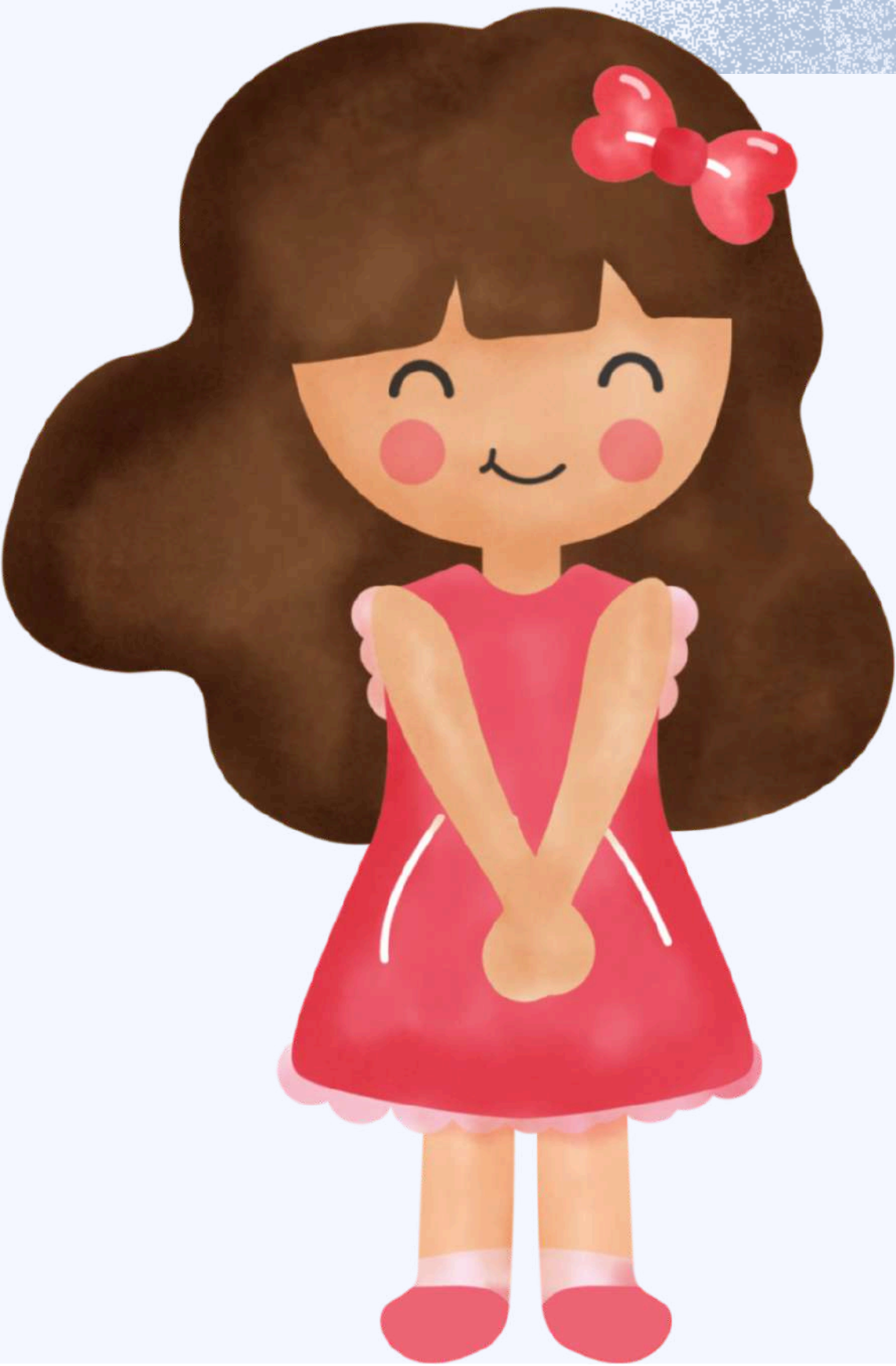


3 of 8 signs, developmentally
inappropriate



Distress or impairment
required

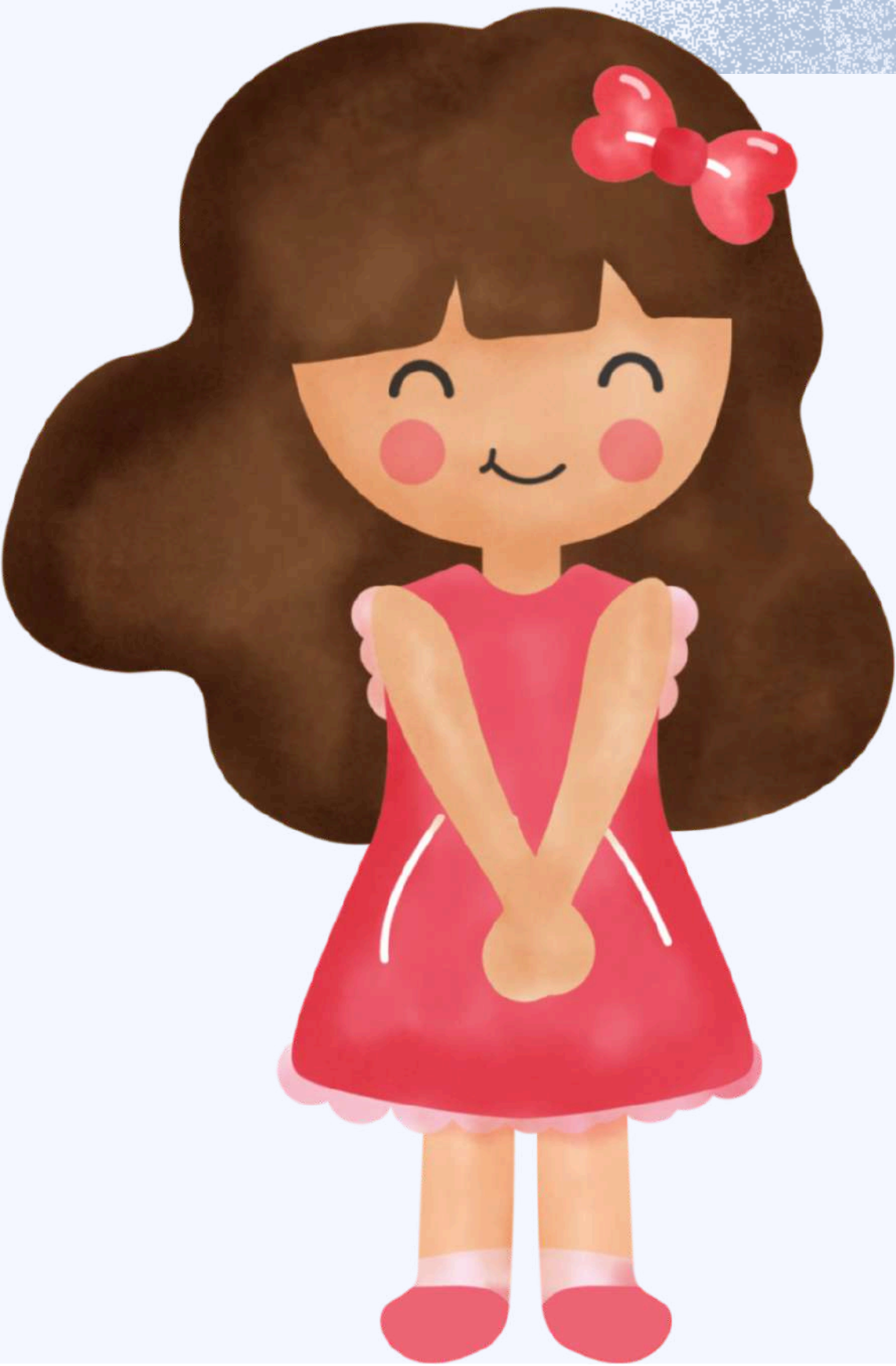
The Case of Maria



In the early morning, Maria was jolted awake by a loud rumbling and violent shaking. She called out to her sister Rosemary as their toys and books crashed from the shelves. The girls ran for their mother's room, but a cabinet fell and blocked the hallway.

"Stay in your doorway!" their mother called. They huddled together, terrified, until the shaking stopped. Everyone was frightened — but unhurt.

The Case of Maria



Maria began complaining every morning of stomachaches, headaches, and dizziness — begging to stay home. A doctor found nothing physically wrong. At school, she couldn't concentrate, kept watching the window toward home, and once cried and trembled so violently the nurse called her mother to pick her up.

Soon she refused her Brownie meeting, dance lessons, even playing in the front yard — following her mother everywhere and insisting on sleeping beside her.

Selective Mutism

A child who talks freely at home falls consistently silent in specific settings, typically school, despite having entirely normal, age-appropriate language.

It isn't shyness and it isn't a speech or language disorder — the silence is anxiety-driven, and usually emerges from a mix of genetic, temperamental, and environmental factors.

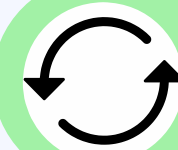
Left untreated, it can persist into adulthood, quietly limiting a child's academic and social world long after the "quiet phase" a worried teacher might expect to pass.



1+ month (not just 1st month of school).



Not a language / communication disorder



Not autism or a psychotic disorder



Theories & Treatment: SAD & Selective Mutism

WHERE IT COMES FROM

- Tendency toward anxiety is heritable.
- Behavioral inhibition: a temperament trait — shy, fearful toddlers who become cautious, quiet school-age children.
- Parents can model anxious responses; overprotection reinforces avoidance.

WHAT HELPS

- CBT: coping skills, relaxation practice for separations, challenging fearful self-talk.
- Medication: antidepressants, antianxiety drugs, stimulants, or antihistamines depending on presentation.

SAD, Selective Mutism, or Just Shy?

1

A 6-year-old chats nonstop at home but hasn't spoken a single word at school in the 3 months since starting.

2

An 8-year-old takes about two weeks to warm up in any new classroom, then participates normally for the rest of the year.

3

A 9-year-old refuses every sleepover invitation and cries for an hour if his parents leave him with a babysitter, for the past year.

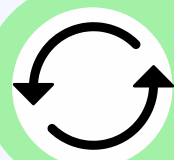
Generalized Anxiety Disorder



More days than not,
6+ months



3 of 6 symptoms (1 in
children)



Worry feels hard to
control

Notice what's missing: unlike panic disorder, there's no dramatic surge — GAD is defined by chronicity and spread, not intensity of any single moment. That's why it often goes unrecognized for years, mistaken for "just being a worrier!"

PHYSICAL / AROUSAL

- Restlessness or feeling keyed up
- Easily fatigued
- Muscle tension
- Sleep disturbance

COGNITIVE

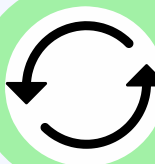
- Difficulty concentrating or mind going blank.
- Irritability.

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 - Sleep disturbance

- ## COGNITIVE
- Difficulty concentrating or mind going blank.
 - Irritability.

The Case of Claire

I just feel anxious and tense all the time. It started in high school. I was a straight-A student, and I worried constantly about my grades, whether the other kids and the teachers liked me, being prompt for classes—things like that. . . . Now I vacuum four times a week and clean the bathrooms every day. There have even been times when I've backed out of going out to dinner with my husband because the house needed to be cleaned.



The Case of Claire

I get so upset and irritated over minor things. . . . I still worry about being on time to church and to appointments. Now I find I worry a lot about my husband. He's been doing a tremendous amount of traveling for his job, some of it by car, but most of it by plane. Because he works on the northeastern seaboard, and because he frequently has to travel in the winter, I worry that he'll be stuck in bad weather and get into an accident or, God forbid, a plane crash.



The Case of Claire

Oh, and I worry about my son. He just started playing on the varsity football team, so he's bound to get an injury some time. It's so nerve-wracking to watch him play that I've stopped going to his games. I'm sure my son must be disappointed . . . , but it's simply too much for me to take.



Why Can't Claire Just Stop Worrying?

1

People with GAD often show both emotional dysregulation and specific cognitive vulnerabilities — including an attentional bias that pulls their focus toward threat-related information over neutral information.

2

Emotion regulation is the balance between understanding your thoughts/feelings and managing their impact on behavior — GAD involves a persistent struggle to strike that balance.

3

Here's the paradox: worry creates an illusion of control and predictability over bad outcomes. It feels productive. But that illusion is exactly what reinforces and normalizes the chronic worry — the "solution" becomes the problem.

Biological Factors: A Brain Tuned to Threat

If panic disorder's story centered on the locus ceruleus and norepinephrine — GAD's biology centers somewhere else: heightened amygdala reactivity to emotional stimuli, with researchers suggesting underlying amygdala inflammation.

A leading explanation involves GABA, the brain's primary "braking" neurotransmitter — people with GAD appear to have a GABA deficiency.

Less braking means excessive neuron firing across many brain regions — producing the chronic, diffuse quality of GAD, rather than panic's sudden, sharp spike.

Treatment for GAD

COGNITIVE-BEHAVIORAL

- Directly confront the most common worries rather than avoiding them.
- Challenge catastrophizing thoughts about worst-case outcomes.
- Build concrete coping strategies.
- Well-established efficacy face-to-face AND via internet-based programs.

BIOLOGICAL

- SSRIs and SNRIs: effective, recommended as first-line therapy.
- Benzodiazepines: fast-acting for acute anxiety, but not recommended for routine, ongoing use given dependence risk.

Social Anxiety Disorder



SOCIAL SITUATION

Conversation, being observed, or performing in front of others.

FEAR OF JUDGMENT

Certainty of humiliation, rejection, or offending someone.

INTENSE ANXIETY

Fear out of proportion to the actual social threat.

AVOIDANCE / ESCAPE

Situation avoided or endured with dread — relief follows.

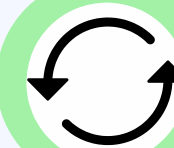
short-term relief reinforces the next avoidance



6+ months,
persistent



Distress or impairment
required



Out of proportion
to actual threat

The Case of Malcolm

Malcolm, a computer expert at a software firm, dreaded riding the elevator with coworkers. He was sure everyone was watching him, judging his rumpled clothes, noticing his every move. He held his breath the whole ride, afraid he'd say or do something embarrassing — and often climbed eight flights of stairs instead.

He rarely went anywhere but work and home. Even grocery shopping felt dangerous: he might bump a cart into someone, or say something "stupid" to a clerk. He found stores and restaurants that delivered, just to avoid talking to anyone.



The Case of Malcolm

For years, Malcolm's job let him stay quietly in his office all day. But after a company reorganization, his supervisor announced the team would need to collaborate closely on new projects — including a presentation Malcolm was expected to give.

On the day of the presentation, he called in sick. He couldn't face it. Now he's considering leaving his job entirely for solo consulting work — anything to keep working from home, alone.



Why Is Social Anxiety So Undertreated?

1

Social anxiety disorder has one of the lowest treatment-seeking rates of any anxiety disorder — which is a cruel irony, since the disorder itself is what makes seeking help (talking to a doctor, sitting in a waiting room) feel unbearable.

2

Embarrassment and aversion to social situations directly blocks the exact behavior — asking for help — that could relieve the problem.

3

Many people also meet criteria for at least one other disorder at the same time, which can complicate recognition and delay accurate diagnosis further.

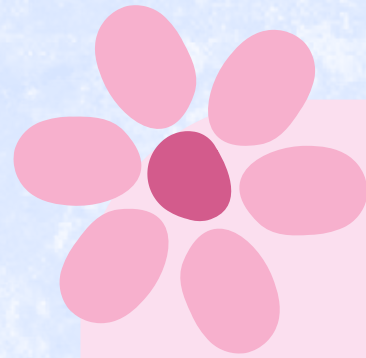
Theories: Genetics, Perfectionism, & Modeling

Genetic basis: social anxiety disorder runs in families, and tends to carry a broader tendency toward anxiety disorders generally — not just this specific one.

Cognitive perspective: people with social anxiety disorder hold excessively high standards for their own social performance, then focus on and harshly judge the negative aspects of their own behavior afterward.

Family environment matters too — parents' modeling of socially anxious behavior can shape a child's development, especially for children already temperamentally prone to shyness (echoing the behavioral inhibition trait from separation anxiety).

Treatment for Social Anxiety Disorder



- **SSRIs and SNRIs** are commonly used and effective for many patients.
- **Cognitive-behavioral therapy:** identifying the specific negative, self-judging cognitions Malcolm shows in his case, then learning to dispute and test them directly.
- **Imagery rescripting:** restructuring the meaning of aversive early peer experiences that often underlie the harsh self-evaluation pattern.
- **Mindfulness-based approaches:** learning to notice and accept anxiety as it arises, rather than judging it or immediately avoiding the situation causing it.

Comparison of Anxiety Disorders

TYPE OF ANXIETY DISORDER	CORE FEAR	DOMINANT DOMAIN	DURATION RULE
Panic Disorder	Sudden internal sensations — "something's wrong with my body".	Somatic (cardiopulmonary)	Attacks + 1mo aftermath
Separation Anxiety	Losing or being separated from an attachment figure.	Behavioral (clinging/refusal) + somatic	4+ wks (kids) / 6+ mo (adults)
Selective Mutism	Speaking in specific social settings.	Behavioral (silence)	1+ month
Generalized Anxiety	Everything, chronically — no single trigger.	Cognitive + somatic arousal	6+ months, most days
Social Anxiety	Negative judgment or scrutiny by others.	Cognitive (evaluation fear) + avoidance	6+ months