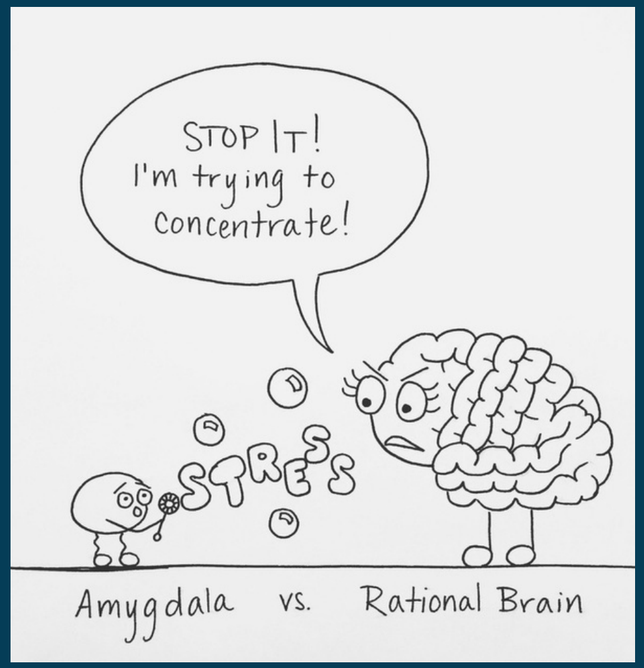
What is Anxiety?

Anxiety is our body's survival system misfiring. It's not weakness; it's biology doing its best to keep us safe

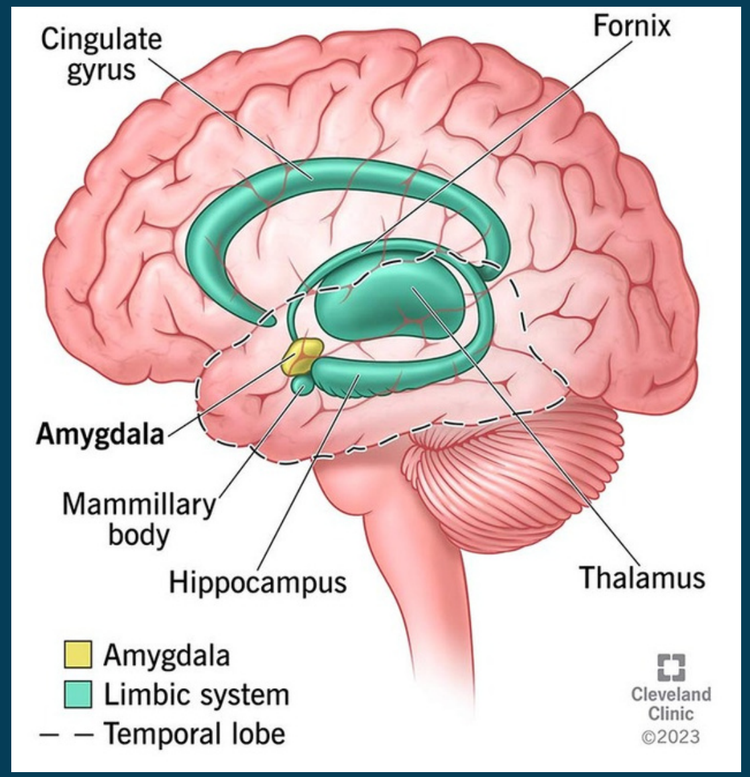


- an emotion: unpleasant state of inner turmoil tied to anticipating future events
- a body response: arousal of the HPA axis (hypothalamus–pituitary–adrenal system), our body's stress-response system, feeling keyed-up, restless, or "on edge"
- a thought pattern: fear, apprehension, or worry, dysregulated thinking ("I can't"), danger vs possibility
- a survival strategy: Fight, Flight, Freeze, or Fawn; built-in biological responses, not chosen behaviours - function safety
- a build-up: accumulation of N.U.T.S.
- a brain circuit: "scrambled connections" between the amygdala (fear/emotion center) and the prefrontal cortex (logic/planning)

Nervous vs Excited: Simon Sinek

Get Excited: Reappraising Pre-Performance Anxiety as Excitement

THE AMYGDALA
OUR BRAIN'S ALARM SYSTEM



- small, almond-shaped structure in the limbic system (brain's emotional hub)
- acts as a processing center for emotions (especially fear, threat, + strong arousal states)

Key functions:

- detects danger and triggers survival responses
- links memories with emotions, = shaping how we learn from past experiences
- guides learning through rewards + punishment
  (helps us avoid what feels unsafe, repeat what feels good)
- influences social communication + caregiving emotions (helping us respond to others' feelings)
- plays a role in implicit memory = unconscious, emotional memory (song/smell triggering feeling)
- can shape learned behaviors, including coping habits
- when overactive - impacts prefrontal cortex (logic and problem-solving)

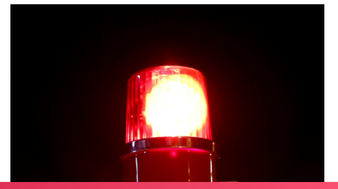
Anxiety (trauma) amygdala ("alarm system") firing constantly

A threat cue
(real or perceived)

amygdala

hypothalamus

neurotransmitter
corticotropin-releasing factor (CRF)



pituitary gland

hormone adrenocorticotropic (ACTH)

adrenal glands

hormone epinephrine + cortisol

autonomic
nervous system

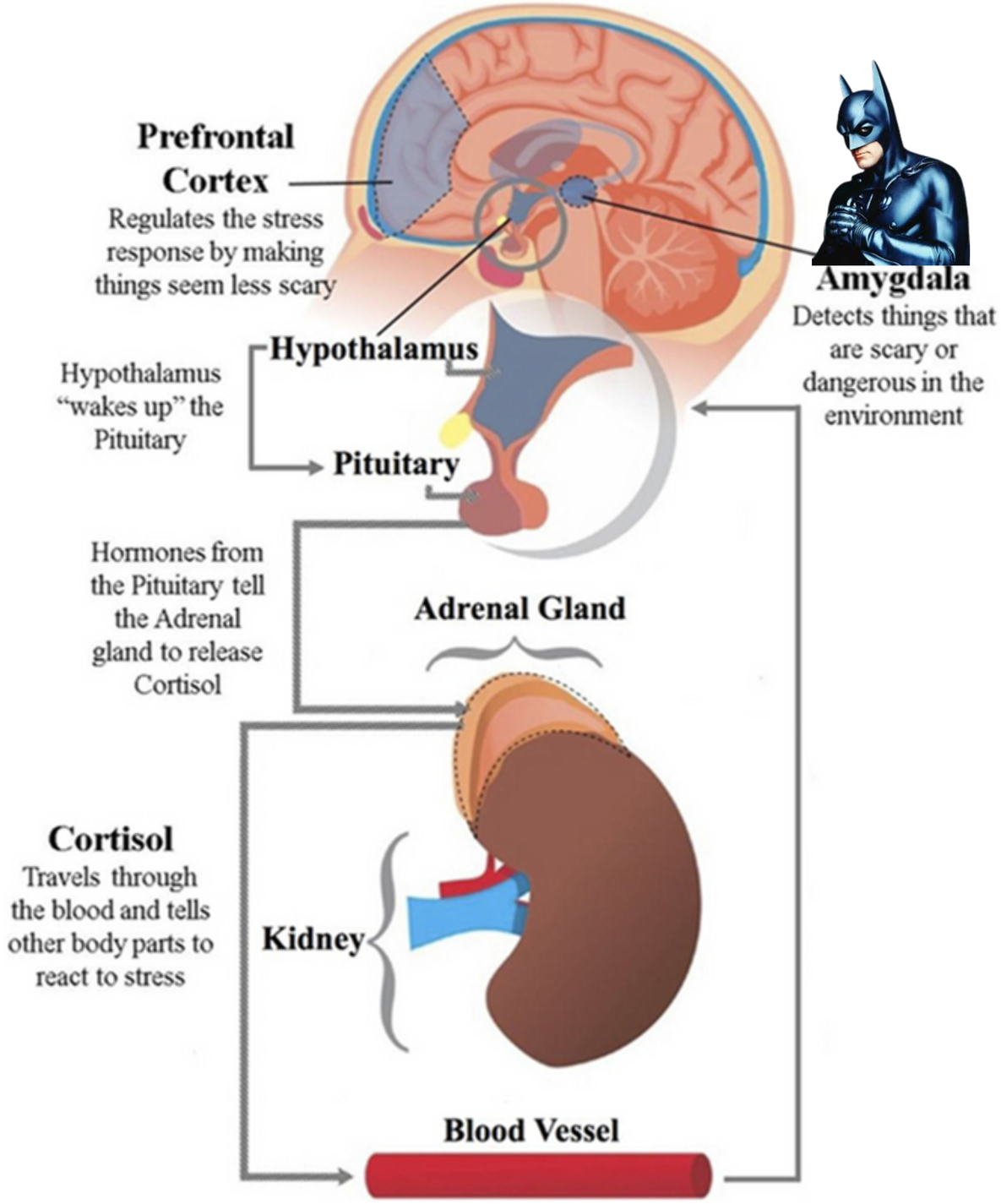
sympathetic nervous system (gas): fight or flight
parasympathetic nervous system (break): rest and digest

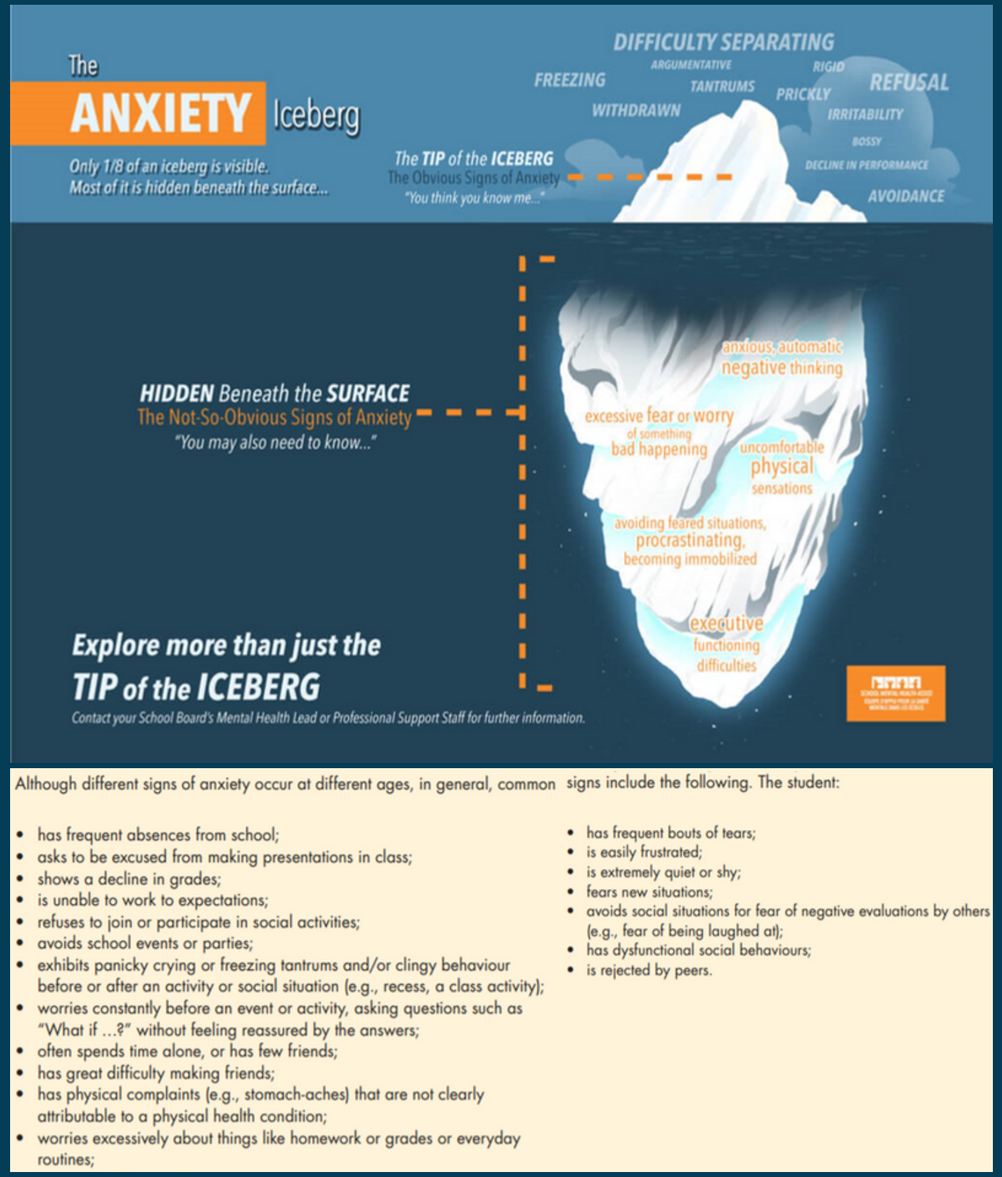
Anxiety: the stress response system

- **ALARM**: Our **amygdala** perceives a threat (environmental, emotional, biological). Action in the amygdala triggers an avalanche of physiological changes (“flight-or-fight” response), which mobilizes the body to respond
- **RESPONSE**: **Hypothalamus–Pituitary–Adrenal (HPA) Axis** signals organs to react to stress by going into survival mode. It includes the hypothalamus, the pituitary, and the adrenal gland, releasing adrenaline and cortisol into the body
- **REGULATE**: **Cortisol** helps the brain to think clearly, sends energy to important muscles, and increases heart rate and breathing. **Prefrontal cortex** calms reactions by assessing them rationally and calmly. If no threat is present signals to the amygdala defusing anxious response *(not mature till late adolescence)*

- *Anxiety = over-activation of Alarm + Response, under-regulation of Prefrontal Cortex*

BRAIN SCANS (STANFORD STUDY)





Although different signs of anxiety occur at different ages, in general, common signs include the following. The student:

- has frequent absences from school;
- asks to be excused from making presentations in class;
- shows a decline in grades;
- is unable to work to expectations;
- refuses to join or participate in social activities;
- avoids school events or parties;
- exhibits panicky crying or freezing tantrums and/or clingy behaviour before or after an activity or social situation (e.g., recess, a class activity);
- worries constantly before an event or activity, asking questions such as "What if ...?" without feeling reassured by the answers;
- often spends time alone, or has few friends;
- has great difficulty making friends;
- has physical complaints (e.g., stomach-aches) that are not clearly attributable to a physical health condition;
- worries excessively about things like homework or grades or everyday routines;
- has frequent bouts of tears;
- is easily frustrated;
- is extremely quiet or shy;
- fears new situations;
- avoids social situations for fear of negative evaluations by others (e.g., fear of being laughed at);
- has dysfunctional social behaviours;
- is rejected by peers.

COMMON CLASSROOM SIGNS

- reassurance-seeking
- difficulty concentrating
- overly self-critical; avoid activities
- panic attacks (heart palpitations, sweating, trembling, shortness of breath, chest pain, dizziness, heat sensations, chills, and feelings of choking, and being detached, extreme fear of dying, losing control)
- separation anxiety (throwing emotional tantrums, crying, holding on to the parent, not wanting to sleep alone, and refusing to go to school)

"The experience of anxiety is primarily internal.
Outward signs of anxiety may be difficult to detect because the behaviour and/or symptoms do not necessarily show themselves in obvious or disruptive ways."
Supporting Minds