

Anxiety Disorders

Anxiety disorders happen when the brain misjudges situations and sees threats that are not actually there, then triggers a panic response. Anxiety disorders can be triggered by traumatic events or crop up on their own.

Effects of Long-Term Anxiety

Our bodies were not built to be in fight or flight mode all the time. Someone with an anxiety disorder may have symptoms that seem disconnected from anxiety. These symptoms may include

- Feeling exhausted for no apparent reason
- Having trouble sleeping
- Having trouble concentrating
- Feeling irritable
- Headaches
- Digestive problems

Parts of the brain that are affected by anxiety

Frontal Lobe Involved with behavior, emotions, reactions, motivation

Cingulate Cortex Connects structures involved with emotions and pain
Affects emotional instability, depression

Parietal lobe Involved with locating things are in the environment

Temporal lobe Involved with telling what things are
Connected to the brain misinterpreting the environment

Amygdala Involved with emotions
Associated with the fight or flight response

Hypothalamus Connects brain to the endocrine system
Let's the brain control what the body is doing

Further Reading

The Brain by BrainFacts.org, 2022. <https://www.brainfacts.org/3d-brain#intro=false&focus=Brain>
An interactive digital 3D brain

Foundations of Neuroscience by Casey Henley, 2021. <https://openbooks.lib.msu.edu/neuroscience/>
A free textbook about how the brain works

Psychiatric medication A to Z by Mind, 2022. <https://www.mind.org.uk/information-support/drugs-and-treatments/medication/drug-names-a-z/>
A list of medications and their side effects

Nursing Pharmacology by Chippewa Valley Technical College, 2020. <https://wtcs.pressbooks.pub/pharmacology/>
A free textbook about medications are processed in the body

DSM-5, 2013.

The diagnostic manual for all mental disorders. It is not open access but can likely be found at your local library

Medications often used for anxiety

Anti-anxiety medications work by calming the brain. These medications will send signals that can tell your brain to turn fight or flight mode off because you are not actually in danger.

Barbiturates

- Increases GABA, inhibits glutamate
- Makes the brain less alert

Benzodiazepines

- Increases GABA
- Receptors concentrated in cortex, thalamus, cerebellum
- Makes brain less alert
- More targeted than barbiturates, which is why they're more commonly prescribed

Antihistamines

- Blocks histamine
- Makes the brain less alert

Neurotransmitters: How Does the Brain Talk to Itself?

Parts of the brain will release chemicals that tell other parts of the brain what to do. Some chemicals will make the brain more active or calm it down, and some are connected with certain moods.

Serotonin involved with mood

Norepinephrine involved with excitement, "fight or flight"

Dopamine involved with motivation and movement

Histamine involved with excitement, helps tell the body to begin the fight or flight response

Glutamate involved with increasing brain function

GABA involved with calming brain function

Panic Attacks vs Anxiety Attacks

Panic attacks and anxiety attacks share many symptoms, including increased heart rate, sweating, shaking, inability to breathe, and nausea. The difference is that panic attacks start unexpectedly and end quickly, whilst anxiety attacks are more long-term and often have clear triggers.

If you see these symptoms in yourself or a loved one, see a medical professional. You can text your zip code to 898211 to find local resources. If you are in an active crisis, call 911.

Works Cited

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