

Test Anxiety & Exams

Introduction to Test Anxiety

Test Anxiety is both a physical and emotional condition, in which physical symptoms, such as

- *headache,*
- *nausea,*
- *diarrhea,*
- *excessive sweating,*
- *shortness of breath,*
- *dilated pupils,*
- *trembling,*
- *rapid heartbeat,*
- *light-headedness,*
- *crying,*
- *fidgiting,*
- *pacing,*
- *feeling faint, and*
- *muscle tension*

accompany emotional feelings, such as

- *anxiety,*
- *anger,*
- *fear,*
- *helplessness,*
- *disappointment,*
- *worry,*
- *fear of failure,*
- *dread, and*
- *catastrophizing.*

Cognitively, test anxiety can result in

- *racing thoughts,*
- *blanking out,*
- *freezing,*
- *poor concentration,*
- *confusion, and*
- *inability to focus.*

Some amount of nervousness or anxiety before a stressful event, like an exam, is normal and can even help you stay mentally sharp and physically alert, performing tasks more quickly and accurately.

However, sometimes the amount of nervousness or anxiety tips over the line from just enough to way too much.

Fight or Flight...or...Fight, Flight, or Freeze

When that happens, the emotional feelings tell the body that it is under threat of bodily harm. This sense of threat triggers the *Fight or flight* response in the body. This response is a (necessary) survival mechanism, helping people to react quickly and seemingly “without conscious thought” to life-threatening situations. It is what enables people to lift cars off trapped people, to jump out of the way of oncoming cars, to dodge blows, and to help soldiers survive hostile situations. This response is part of our physical makeup and has been helping humans survive over millennia of physical threats.

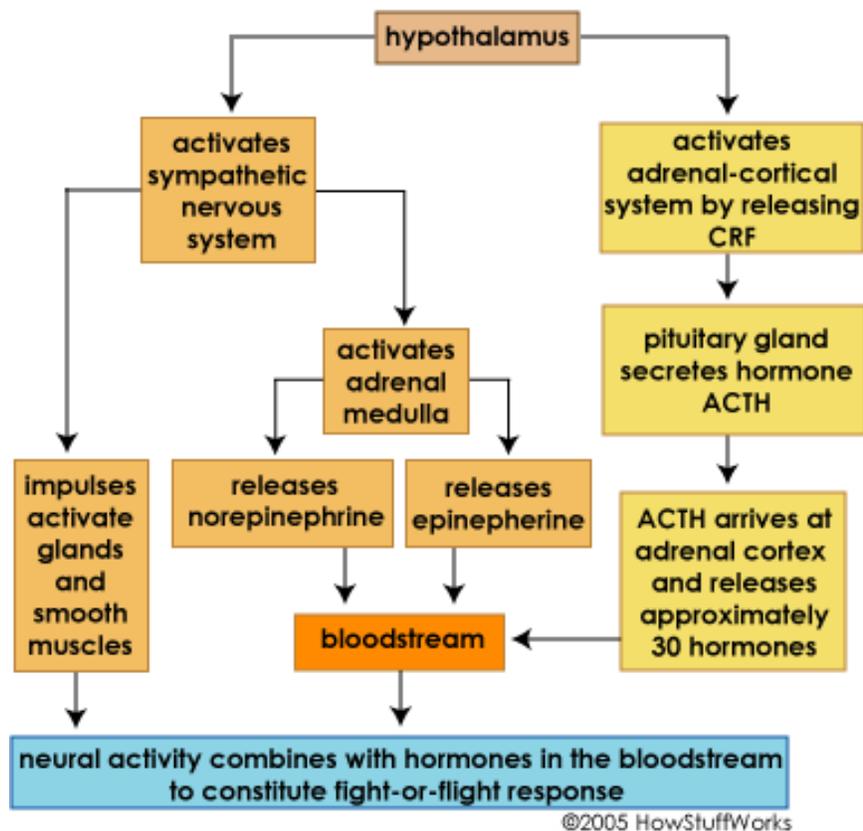
Unfortunately, some present-day situations, such as traffic jams, work pressure, and, yes, exams, can also trigger this response. These situations do NOT actually represent physical threats to the body, but the body and mind may interpret them as threats and will respond accordingly.

What Happens to The Body Under Fight or flight

In her article, "[How Fear Works](#),"¹ Julia Layton explains the Fight or Flight response:

To produce the fight-or-flight response, the hypothalamus activates two systems: the sympathetic nervous system and the adrenal-cortical system. The sympathetic nervous system uses nerve pathways to initiate reactions in the body, and the adrenal-cortical system uses the bloodstream. The combined effects of these two systems are the fight-or-flight response.

Fight-or-flight Response



¹ [Julia Layton](#) "How Fear Works" 13 September 2005.

The sudden flood of epinephrine, norepinephrine and dozens of other hormones causes changes in the body that include:

- heart rate and blood pressure increase
- [pupils](#) dilate to take in as much light as possible
- veins in skin constrict to send more blood to major muscle groups (responsible for the "chill" sometimes associated with fear—less blood in the skin to keep it warm)
- blood-glucose level increases
- [muscles](#) tense up, energized by adrenaline and glucose (responsible for goose bumps—when tiny muscles attached to each hair on surface of skin tense up, the hairs are forced upright, pulling skin with them)
- smooth muscle relaxes in order to allow more oxygen into the [lungs](#)
- nonessential systems (like digestion and [immune system](#)) shut down to allow more energy for emergency functions
- trouble focusing on small tasks (brain is directed to focus only on big picture in order to determine where threat is coming from)

All of these physical responses are intended to help you survive a dangerous situation by preparing you to either run for your life or fight for your life (thus the term "fight or flight"). Fear—and the fight-or-flight response in particular—is an instinct that every animal possesses.

These physical changes happen quickly, so quickly most people are not aware of them. The amygdala and the hypothalamus act like a command center and respond so rapidly that *not even information processed by your eyes has a chance to reach the brain before they have jumped into action.*

The body responds in a cascade of actions that result in the release of hormones and other chemicals, including cortisol, that will keep the body “revved up” until the body perceives that the threat has passed. Cortisol in particular keeps the body in this heightened state.

After experiencing a fight or flight response, it ***can take between 20 and 60 minutes for the body to return to its pre-arousal state.*** That can be a problem on an exam.

[What are the Long-Term Effects of Chronic Stress due to Fight or flight](#)

When the body is in a frequent state of fight or flight, or chronic arousal (also called chronic stress), it can have serious long-term effects on your physical and psychological health. This repeated condition can lead to high blood pressure, damage blood vessels, clog arteries, and produce chemical changes in

the brain that actually contribute to more anxiety, depression, and addiction problems. In addition, it can interfere with sleep and increase weight problems.

One of the biggest problems with frequent fight or flight responses is that they become a “habit” for the body. The more frequently they occur, the more likely it will happen again and the stronger the response. You can think of this as sort of a conditioned response from the body. You need to interrupt this cycle and stop it from starting. Once it starts, you need some methods to put your conscious brain back in the driver’s seat and tell your hypothalamus and amygdala to “stand down.”

What to do about This Fight or flight Response

It is NOT just “in your head;” it is in the body’s reaction, as well, and that makes it more difficult to address. However, there are some concrete things you can do to try to counteract test anxiety.

Some of the techniques to counteract test anxiety may sound a little crazy, but they have all been researched and proven to work.

Techniques to counter test anxiety:

- Deep Abdominal Breathing
 - Place your feet flat on the floor, no crossed legs or ankles.
 - Place the palms of your hands face-down on your thighs.
 - Close your eyes.
 - Focus on breathing like a 5-year-old child. That means allowing your stomach muscles to “poke out” and relaxing your shoulders.
 - Breathe in for a count of a slow 6 (or as long as you can, even if it is only a count of 3!). Feel your stomach move out, away from your spine as you breathe in.
 - Take one more sip of air, then pause.
 - Now feel your stomach contract as you breathe out and feel the stomach muscles come towards your spine. Try to push out all the air. Then push one more time. Try not to think; just breathe.
 - Do this for at least 10 slow breaths until you truly can breathe in for a slow count of 6.
- Focus on a Soothing Word
 - Try to fill your mind with a single word that feels calming to you. Some possibilities might include *peace* or *calm*. The word “relax” generally does NOT help people relax.
- Visualization of Calm Scenes
 - Think of a warm, sunny day at the beach, with a soft breeze blowing as you sway gently in a hammock in the shade. Visualize being calm, warm, and a bit sleepy.
 - Think of the warmth of a beloved grandparent’s kitchen as they made cookies just for you. Smell the cookies as they bake.

- Repetitive Prayer or Phrases
 - Repeating a phrase or prayer over and over may help you, but only if you repeat it calmly and deliberately.
 - The phrase “Oh, no! Oh, no! Oh, no!” running like a freight train through your brain will not calm you down.
 - Try something like “I ...can ...do ...this.” Long pause. “I ...can ...do ...this.” Long pause. Other helpful phrases might include “I’ve got this,” “I am prepared for this exam,” “I have worked problems like this before,” “I am going to be okay,” “I am safe and warm,” “I’m okay,” and “Everything is okay.”
- Yoga
 - Yoga focuses on an awareness of the mind-body connection and on improving breath. There are many different types of yoga; they are not all “sitting around humming.”
- Tai Chi
 - Tai Chi is an Asian form of exercise that combines fluid movements, deep breathing, and mental focus. Often done in parks, this has the added bonus of getting you outside.
- Go Outside
 - Being present in nature is an excellent way to counteract stress. Trees, the wind, grass, seeing the mountains...all of these things will naturally calm you. Bare feet in warm (dry!) grass is very soothing.
- Tapping
 - This technique and the next have been used to great effect with survivors of genocide, war, and natural disasters, as well as returning soldiers with PTSD.
 - One of the advantages to this method is that it can be done in public, and no one will realize what you are doing.
 - Doing something on both sides of the body in a repetitive back-and-forth manner is calming to the body. This is one of the reasons walking is a great calming activity—two legs, two feet.
 - To use tapping, tap your toes *slowly* inside your shoes, gently up and down. Right toes, left toes, right toes, left toes.... Do this for five minutes. You can also cross your arms and tap your fingers on your arms. Right fingers, left fingers, right fingers, left fingers.... Again, keep up the activity until you feel a sense of calm. This is especially helpful if combined with deep breathing.
- Shaking
 - Believe it or not, deliberate shaking is **highly** effective.
 - Go to a bathroom stall or single person bathroom so you have some privacy.
 - Now place your feet about shoulder’s width apart.
 - Bend your knees slightly, hang your arms by your sides.
 - Close your eyes and start to move.
 - Bounce gently up and down through your knees while you shake your arms.
 - Sway side to side and up and down while you push your arms back and forth in front of you.

- People unconsciously do some of this when they pace, wring their hands, and swing their arms back and forth when under extreme stress. Do it on purpose!
 - The point is to physically “use up” some of the stress hormones, like cortisol, by moving physically. If you don’t get those hormones out of the body somehow, you will find it hard to get control back.
- Regular Physical Exercise
 - This is one of the best methods for counteracting stress.
 - Just 5 minutes of movement that would produce sweat will start to break down the stress hormones. (See shaking above.)
 - You can even hide in the bathroom and do jumping jacks for 5 minutes.
 - Go for a walk, preferably outside. The presence of trees and running water is especially calming. Hike up Green Mountain and back.
- Laugh
 - Yes, I know this sounds impossible in the midst of a full-blown test anxiety episode, but it is also hard for the body to maintain a state of heightened arousal when you are amused. So, watch a five-minute video clip of some movie you find really funny before you go take a test. (The old movie *Planes, Trains, and Automobiles* with John Candy and Steve Martin always works for me.) It will help reassure your mind and body that while you are stressed, you are NOT actually under threat.

Other Things That Affect Your Ability to Stay in Control

Eating

There are foods that will make it more likely for a fight or flight response to “get away from you.” *Try to avoid*

- | | | |
|----------------------------|-----------------------|--------------------------|
| ▪ caffeine, | ▪ white bread (whole- | ▪ pizza, |
| ▪ artificial and refined | grain is okay), | ▪ cakes, |
| sugars (not fruit), | ▪ aspartame (found in | ▪ cookies, |
| ▪ alcohol, | many “light” and | ▪ Saltine-type crackers, |
| ▪ soda (including diet | “sugar-free” foods), | ▪ fried foods, and |
| soda), | ▪ ketchup (otherwise | ▪ chocolate. |
| ▪ high-fat dairy products, | known as sugar with a | |
| | little tomato sauce), | |

Do **not** reward yourself on exam day by stopping for *donuts* on your way to class. When the sugar in your bloodstream combines with your natural nervousness, it may cause your body to overshoot its response, and make it difficult for you to get control back. The same is true for *caffeine*. If you are not normally a coffee drinker, now is not the time to start. Ditto for energy drinks. Avoid the orange juice and grab the orange instead.

Other *good foods to eat* include

- whole-grain breads and cereals,
- fish,
- olive oil,
- nuts,
- avocados,
- salsa (in place of ketchup),
- vegetables,
- protein at breakfast,
- oatmeal,
- yogurt, and
- quinoa.

Sleeping

Sleeping well and enough is probably the single most important thing you can do to perform well on an exam and to help resist a fight or flight response. In one study of 621 college students, those students who get seven hours of sleep each night during the final exam period scored nearly 10% higher than students who got less sleep.

Sleep is when the brain does its work of organizing what you learned while awake and integrating it into what you already knew. It also increases your ability to think logically (which is imperative on a math test) and to resist feelings of panic.

No sleep = no long-term learning. A lack of sleep makes the brain work harder, but it accomplishes less and makes more mistakes. Mistakes on a math exam can be disastrous. Lack of sleep makes it harder to remember things and slows down reaction times. Given a choice between sleeping two more hours and studying two more hours, go to bed.

Caveat about Food and Sleep

While it is true that the foods you eat and the amount of sleep you get will affect your performance on exam day, it is also true that the body does not particularly care for change.

The basic rule of thumb is not to make any major dietary or sleep changes in the two to three weeks leading up to a major exam, such as a final exam. It usually takes a minimum of three weeks for the body to adjust to a new diet and often takes longer. If you normally get up and drink a caffeinated drink at breakfast, you should continue to do so—no more than normal and no less than normal.

It can also take anywhere from a few days to a few weeks to adjust to a change in sleep schedule. In the meantime, your body is not functioning at its best, and that includes your brain.

If you normally go to bed at midnight and get up at 7, keep doing it. Do NOT go to bed early the night before the exam. You will just toss and turn and find yourself awake well past your normal bedtime.

Likewise, do NOT stay up later to study more; an hour after your normal bedtime, you will find your body energized. Called a second wind, this is your body thinking there is something wrong, and you NEED to be awake for your safety. You will find it hard to go to sleep for another three or more hours. You have about a 2-hour window to go to bed without issues, so do it!

Other Bizarre Responses to Stresses Like Final Exams Week

Sometimes, in an effort to avoid the situation that is causing stress, the brain will attempt to divert your attention into other areas of your life. During times of great stress, people often make life-changing decisions that would have been better left to less-stressful periods.

No, It's NOT a Good Time for a Break-Up

For example, many college students make relationship changes during Final Exam Week. To avoid the real stressors—final exams, studying, and fear of not doing well—they decide that now is the time to have that talk they've been putting off for six weeks.

It...Is...Not...The...Time. Resist.

If necessary, and you think your significant other is about to do this to you, don't answer the phone. Send a text that says, "I'm so sorry I can't talk right now. I am so stressed about my math final, that I just can't deal with anything else. Thanks so much for understanding and let's talk on Saturday!" [After your finals are over.] Then put the phone on silent and put...it...down.

No, It's NOT a Good Time to Change Your Major...or Your Life Plan

This is not the time to begin rethinking your life plan or college major. You can do that next week or next month. For now, stay the course and push any intrusive thoughts unrelated to preparing for your finals out of your brain. Visualize putting them in a box, closing the lid, and putting them away in the bottom of the hall closet. Plan to get them out the day AFTER Final Exams are finished.

Yes, It's a Good Time to Get Out of Town

Final Exam Week can be a very stressful time for college students. At a four-year college or university, you can almost feel the tension in the air. It becomes a palpable thing that you can feel even when you are not on campus. The weekend before finals begin is, therefore, a great time to go visit your parents or grandparents. Go somewhere quiet, where you will not be expected to do much, where you are not around a lot of other students, and where you can quietly calm your mind and prepare for the week ahead. You can study just as much and just as hard on their couch as in the library of your college, surrounded by other highly anxious, caffeine-strung out, candy-bar eating, sleep-deprived students.

...But you won't be as stressed doing it.



This document was written by [Johanna Debrecht](#), Red Rocks CC, licensed under [CC BY-NC-SA 4.0](#).