

**THE**  
**ANXIETY**  
**ENCYCLOPEDIA**  
YOUR PATH TO RECOVERY



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## **The Anxiety Encyclopedia**

### Sample Chapters

Areas with “...” will be available with the full book on January 5<sup>th</sup>.

## Introduction

“My heart is beating so fast. Am I having a heart attack?”

“What are all of these weird thoughts? Am I going crazy?”

“My chest feels like it’s about to explode. What if I am dying?”

If you have had high anxiety before, these thoughts and symptoms probably sound familiar. On the lower end of the spectrum, anxiety can cause a rise in heart rate, muscle tightness, and dizziness, negatively impacting our life. On the severe end, familiar to far fewer of us, things get a lot scarier. Shortness of breath so intense it feels as if we could faint at any moment. Heart rate nearing its peak without moving a muscle. Nausea strong enough to prevent us from eating for days. Then there are the mental symptoms. The feeling that the world is closing in on us. Dissociation causing us to feel disconnected from our surroundings. Bizarre thoughts about violent, depraved, or nonsensical things that make it seem as if we are losing touch with reality. And sometimes worst of all, the fear that, even in our better moments, it will come back.

I want to start by addressing the question you have probably asked yourself a hundred times: Will this anxiety I am experiencing last forever? The answer, which I say with absolute confidence, is *no*. An anxiety disorder, when treated properly, is nothing more than a temporary period.

Googling “is anxiety curable” will bring up plenty of conflicting answers, with an even split of “yes, anxiety is curable,” and “no, it is only manageable.” So let me clear things up: the mechanism of anxiety is like the mechanism behind physical pain—a sensation our body makes when it is driven out of equilibrium. When we lift too much weight or run too quickly, pain is our body’s way of telling us to slow down. In the same way, when we are in danger or need to focus, anxiety is our body’s way of giving us a boost. Since experiencing pain and anxiety in this way can be helpful, they are not something we want to eliminate completely.

However, there are times when our body is driven so far out of equilibrium that these mechanisms bring us great discomfort. Just like we feel overwhelming pain when we maintain bad posture for years, certain behaviors will cause us to experience overwhelming anxious symptoms—symptoms that may come up in random and inappropriate situations (or if you are like I was, all day every day), and far more intensely than those around us.

In these cases, the symptoms are not the problem. Rather, there is a separate problem that *causes* us to experience them. When we work on our posture, doing

physical therapy and choosing to sit upright more often, our body gradually returns to normal, and the pain slowly goes away as a result. Anxiety is the same—there are problems that *cause* our body to produce anxious symptoms far more than is necessary. When we address these problems, our body slowly returns to normal, reducing the strength of anxious symptoms until they only pop up occasionally and at low strength. In that sense, anxiety disorders—periods of uncomfortably high anxiety—are *absolutely* curable.

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## **The Science of Anxiety**

## The Biological and Psychological Roots of Anxiety

Before we get into how to treat anxious symptoms, we must first understand how they work. The reason for this is simple but vitally important: all of the therapies we will use build on this understanding. The better our understanding, the more effective these therapies will be.

To understand why our body works the way it does, scientists usually study our evolution. They look at why our ancestors might have needed to be anxious and what role this mechanism is supposed to have in our lives today. For this, the following chapter will help answer the question: what exactly is the mechanism behind anxiety?

### The Amygdala and Fight or Flight

If we look back hundreds of millions of years ago, before our brains developed the mechanism for anxiety, the only way animals could defend themselves from their environment was through preventative measures; they had thick skin, spines, or size to stop other animals from attacking them. The problem with these mechanisms was that eventually evolution caught up—animals evolved strong teeth to pierce thick skin and spines, and some formed groups to take down large prey.

For this reason, preventative measures were just not enough to guarantee survival. Living beings with a way to *react* to danger rather than prevent it would have a leg up. Thus, through random mutations and survival of the fittest, a reaction system began to develop—one that could help us quickly respond to danger in the moments right before it happened and that could not be outdone by evolution.

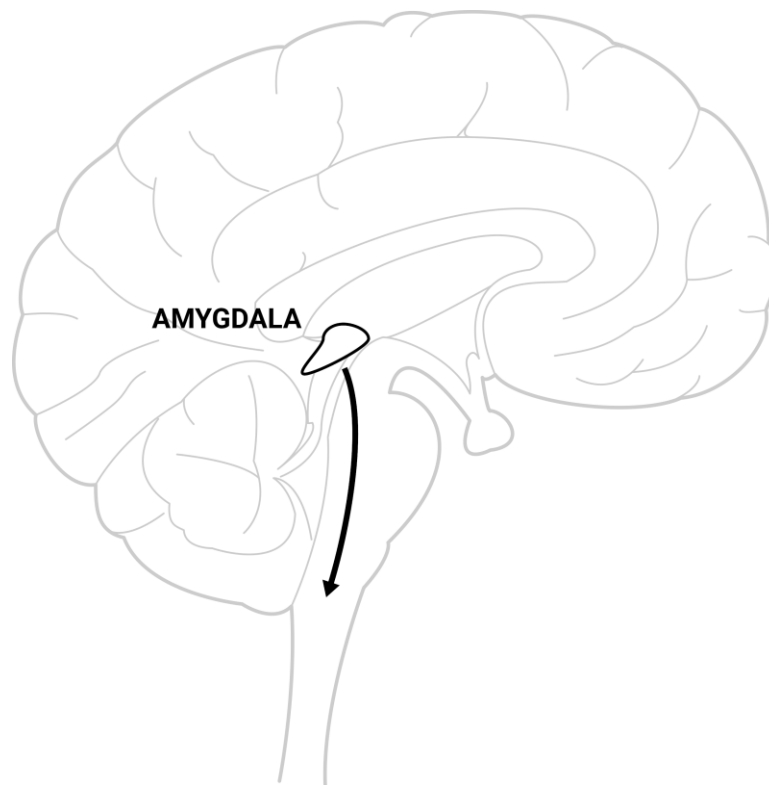
When this system first appeared hundreds of millions of years ago, the brain was not what it is today. Humans were not a distinct species yet, and those that did exist had very little brain power; they had the senses of sight, smell, and touch but no power to actually make meaning out of them—to think—the way we do now. This reactionary system needed to rely only on those senses and function without conscious thought.

The end result was an addition to the brain called the amygdala, two little clusters near the center. When the amygdala receives a stimulus from one of our senses, its job is to kick-start us into action so we can confront danger. In this way, the amygdala is like a simple computer program; it receives an input from our eyes, ears, or nose and outputs a performance-boosting hormone.

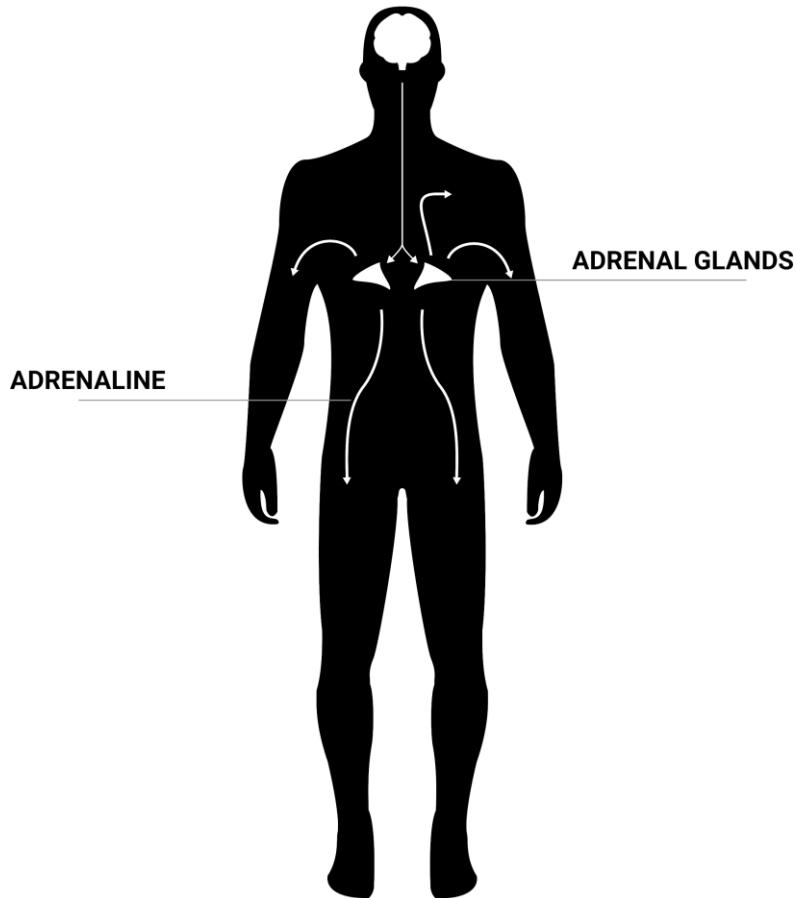
This idea is reflected in its structure. The amygdala is made of neurons (cells that carry electrical pulses) and synapses (the gaps between neurons). Together, these

neurons and synapses connect to one another to make up networks, called synaptic pathways.

These synaptic pathways make up the amygdala's code; when the brain gets a message from our eyes or ears, it is translated into electrical signals and sent to the pathways in the amygdala, much like sending a password to a website.<sup>3</sup> If there are no pathways in the amygdala that say the stimulus is dangerous—if that password is not built into the code—the amygdala does not react. If it is, the amygdala starts a two-step chemical reaction throughout the body that helps it respond to that danger. First, it sends a message to the adrenal glands, located right above the kidneys. Then these glands produce adrenaline and release it into our bloodstream.<sup>4</sup>



A diagram of the signal the amygdala sends to the adrenal glands.



The adrenal glands shooting adrenaline into the bloodstream, causing our organs and muscles to go into overdrive.

This process, just like breathing and digestion, happens out of our conscious control. Our body decides what volume of adrenaline to make (usually way more than we need) and how much to send to each area of the body. This causes our heart to beat more quickly, our lungs to expand and contract more rapidly, and our muscles to become tense, all of which gives us an advantage in the face of danger; tense muscles make us stronger fighters, and rapid breathing makes us better runners. The technical term for this mechanism is the fight or flight response.

Since danger can come at a moment's notice, evolution drove the fight or flight response to become faster and faster. Today, the time it takes from amygdala to adrenaline is less than a tenth of a second.<sup>3</sup>



This system does not come without its drawbacks. Adrenaline puts a strain on our body due to how much energy it uses,<sup>5</sup> so it is only meant to be used in special circumstances and for a short time.

For this reason, rather than storing any adrenaline we do not decide to use for running or fighting (like our body does for certain other hormones), it is much safer for our body to forcibly use it outside of our conscious control and then make more whenever it needs to.

If adrenaline increases blood flow to our legs and we choose not to run, our legs still shake, shiver, and twitch involuntarily to release it. If it is sent to our cardiovascular system, our lungs still expand and contract more quickly and our heart beats more rapidly even if we are sitting down, resting, or consciously telling them to slow down. Our stomach turns, our arms and back get tense, and our eyes and ears become hypersensitive, with these symptoms getting stronger the more adrenaline our body makes. This is our body's way of using its leftover adrenaline.

This safeguard prevented our body from making too much adrenaline at once, but there is a second safeguard in our amygdala that prevents fight or flight from going on for too long: after a few minutes, our amygdala begins to calm its response and make less adrenaline, even if the sight or sound that set it off is still there.

Hundreds of millions of years ago, this response gave an advantage to those who had it. This helped living beings with an amygdala outlive those without one. This is why we see amygdalae in all mammals today—feline, canine, and of course primate (human).

Even though this system is millions of years old, our amygdala functions the same way today. We still receive boosts of adrenaline throughout our day, and any adrenaline we do not use gets used out of our control. While we sit at our desks or lie in bed, our leg muscles shake, our heart beats quickly, and our breath becomes shallow as a way for our body to put leftover adrenaline to use.

However, unlike our ancestors, our lives are no longer built around being able to run away whenever we feel like it. When we receive a shot of adrenaline in a business meeting or a class presentation, we have to let these sensations arise without being able to do anything with them. Thus we have come to see them as something negative—*unwanted* sensations produced by leftover adrenaline—which we named anxious symptoms.

We can see anxious symptoms in other mammals with amygdalae. For example, dogs run around and even shiver in the few minutes after they become excited. This

helps them get rid of any adrenaline left in their body. The same is true for chimpanzees, deer, and even mice, who are known to shake, fidget, and show symptoms of involuntary adrenaline release shortly after getting scared.<sup>6</sup> However, the relationship humans and animals have with anxious symptoms is different for reasons we will discuss next.

## The Emotional Brain and Suggestive Thoughts

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## The Conscious Cortex and Worrying

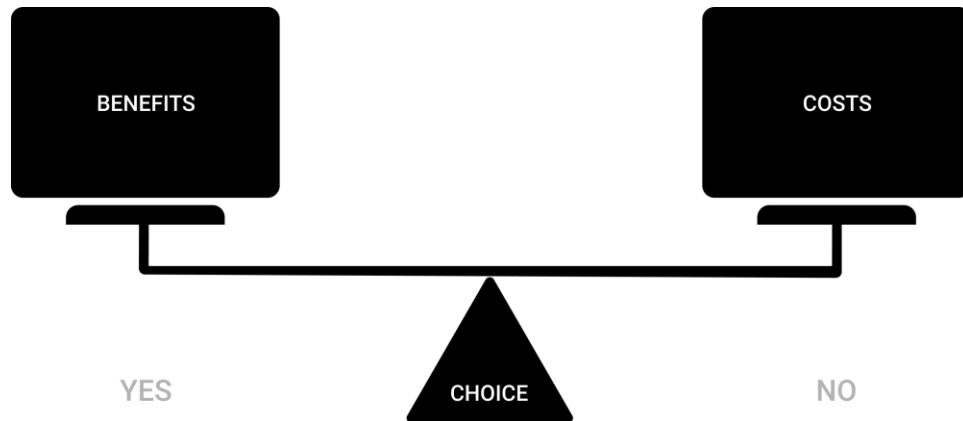
With the evolution of great apes came the final and most important part of the brain: the prefrontal cortex.

Prior to the prefrontal cortex, our emotional brain was our command center. Whenever we received a cue from our body or our surroundings, we followed it—when our stomach rumbled and our emotional brain said *I should eat*, we ate. When we encountered an animal that brought up a negative memory, our emotional brain said *I should run*, and we ran.

In humans today, the emotional brain still handles reactionary behaviors in the first few seconds when we sense something new (which earned it the name fast brain). These include jumping out of our seat when we hear a loud noise or turning our head when we see something out of the corner of our eye. But the addition of the prefrontal cortex allows us to choose all of the actions after that—to ignore these knee-jerk behaviors and act differently (using our slow brain).<sup>9</sup>

When we think of who we are—the long-term decision maker of our life, the conscious being at the center of our body—it is in the prefrontal cortex. For this reason, throughout this book, I will refer to it as the **conscious cortex**.

Macroscopically, we have a good idea of how we make decisions in our conscious cortex. When a thought is produced in our emotional brain and brought to our attention in the conscious cortex, we analyze it—we determine whether we should act on it or ignore it. There are many theories as to how exactly this works, but all of them involve a basic **cost-benefit analysis**.<sup>10</sup>

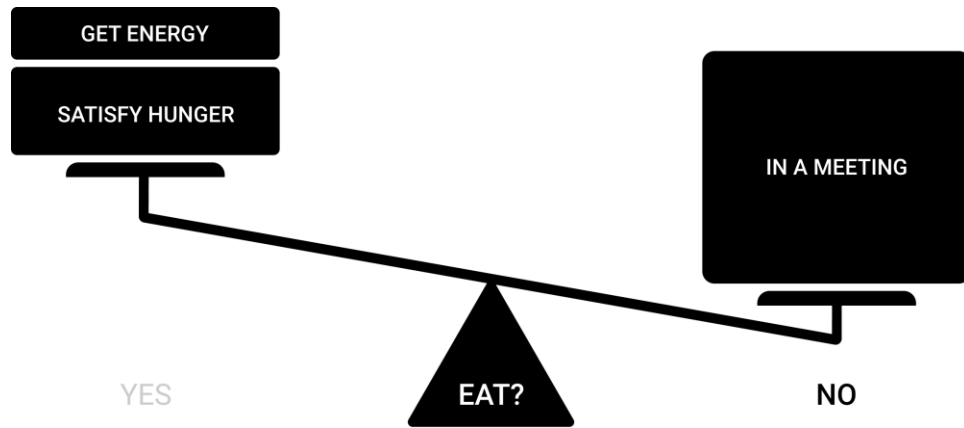


A visual of what a cost-benefit analysis looks like.

Practically, we start off by asking ourselves whether acting a certain way would benefit us. We do so by making a short list of what we think we would gain and how much. Then, we ask if it would come at any sort of cost, like energy or time, and how much. These are called **valuations**, the factors we weigh and how much weight we give to each. After weighing our valuations, we make a decision and act on it. In other words, we act the way we do because we think we will gain something or because we think it will help us avoid losing something.

For example, every day our body produces hunger hormones and our emotional brain says *Maybe I should eat*. If we have nothing going on, we feel the benefit of not being hungry is high, while the time and energy costs are low. Thus we decide to eat and then physically act on that decision.

If we are hungry in an important business meeting, we might consider the cost of getting yelled at far larger than the benefit of not being hungry. In that case, the costs outweigh the benefits, so we choose not to eat and get back to what we were doing.



What our cost-benefit analysis might look like for the above scenario. The value of getting energy, satisfying hunger, and being in a meeting vary from person to person.

However, there is a third option, one that is not often discussed but is (ironically) the one we do the most...

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## How We Develop Anxiety Disorders

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### Panic

The next piece of the puzzle is the amygdala. When our amygdala encounters a stressor, it tells our body to produce adrenaline, which gets sent to our muscles and organs. This gives them a boost in energy and causes all of the anxious symptoms associated with adrenaline. There are certain safeguards in place to prevent fight or flight from lasting too long or being too strong: the amygdala dials down its response over time, and our body releases as much adrenaline as it needs to.

However, the cue to create adrenaline can come from one other place: the conscious cortex. When we consciously worry, this has just as much power to create adrenaline as the amygdala does on its own—to lead our throat muscles to tense up, our knees to get shaky, or our stomach to churn outside of our conscious control.

All the worrying we do in the conscious cortex results in symptoms, but the strength of these is usually limited. It is normal for those who frequently worry about their job—surgeons, investment bankers, politicians—to experience mild anxious symptoms like an elevated heart rate, nausea, and trouble sleeping more often than those with less demanding jobs.<sup>25</sup>

However, in a select group of people, our body keeps making adrenaline, far beyond what is appropriate for the situation; instead of a heart rate that briefly spikes up and slows down, some of us have a heart rate that keeps escalating, often to 150+ bpm for a half hour or more. Rather than our nausea intensifying for a minute at the beginning of a meeting then fading away, it continues to build, causing us to dry heave and even vomit.<sup>26</sup> These anxious symptoms can get so strong they cause many of us to drop what we are doing and call an ambulance.

This cannot be caused by the amygdala alone—it can only sustain fight or flight for a few minutes. It also cannot be caused by just any worrying, otherwise every surgeon and banker would be constantly jittery and nauseated.

Instead, a certain number of us experience this giant boost of adrenaline in average situations, like at our desk at work or in class. We are speaking to a coworker or taking notes in a meeting when we suddenly begin to get short of breath. Then in under a minute, our heart rate skyrockets, adrenaline shoots through our body, and we

feel the overwhelming urge to escape—we experience **panic**—independent of what is happening around us.

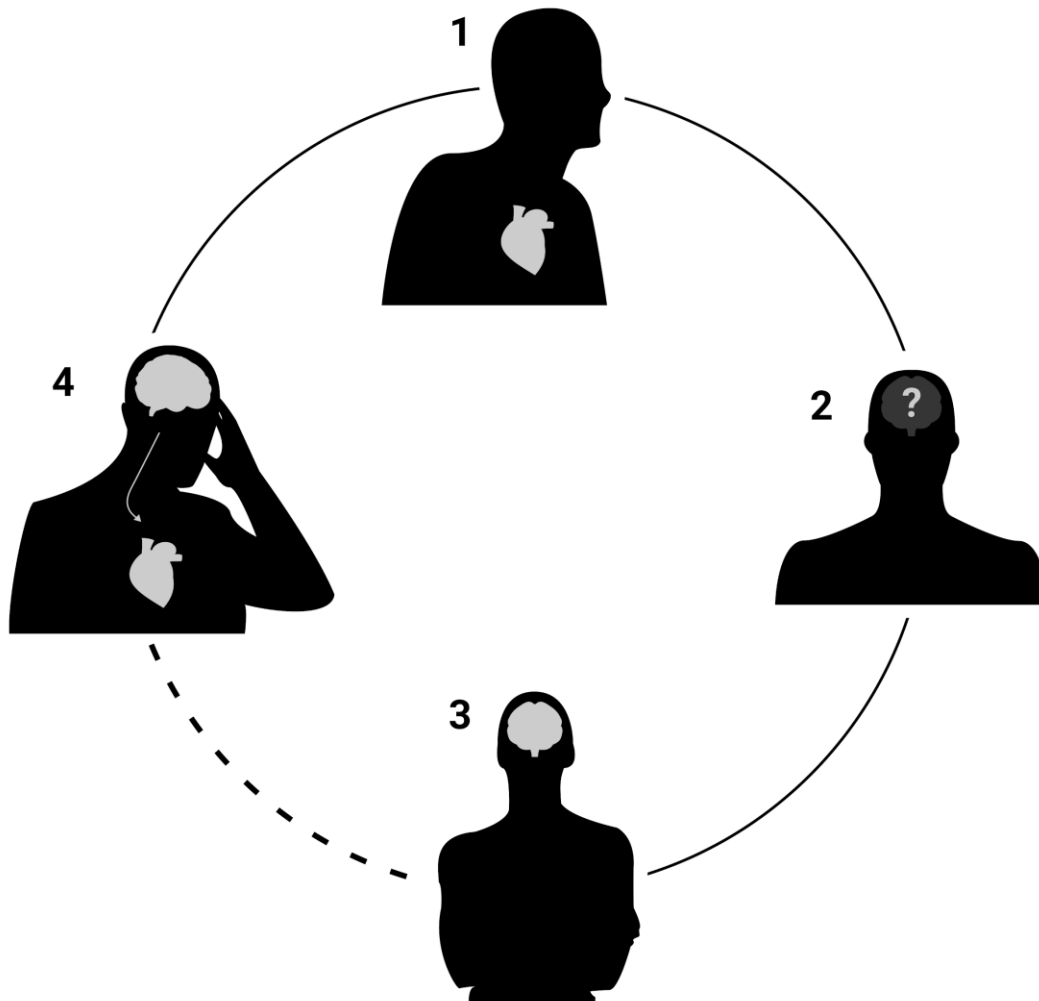
Panic includes all of the mechanisms we have learned up until now, but in a specific way:

*A panic attack occurs when we worry about the symptoms of our worrying, forming a kind of loop.*

This may sound complex, but it becomes easy to understand when we break it down. When we worry, it causes our body to create adrenaline, leading to rapid breathing, tense muscles, and nausea. If we worry *about* these symptoms, it (paradoxically) sends a response to the amygdala to release *more* adrenaline, which causes these symptoms to get stronger.

In practice, it functions like this.

1. We experience a symptom like an elevated heart rate. It can come as a result of some other behavior like exercise, because we were worrying about something unrelated, or because we got poor sleep or were dehydrated.
2. Our emotional brain creates a suggestive thought about that symptom, like *Is this dangerous?* and becomes jumpy.
3. We briefly weigh the benefits of worrying about this thought (something like preventing a possible heart attack) against the costs. If we think it will benefit us, we worry—we ask ourselves questions about whether our heart is about to fail and whether we need to call an ambulance.
4. This worrying signals to the amygdala that it is in danger, causing it to produce adrenaline. This brings us back to step 1 but with stronger symptoms.



The four steps of the panic spiral.

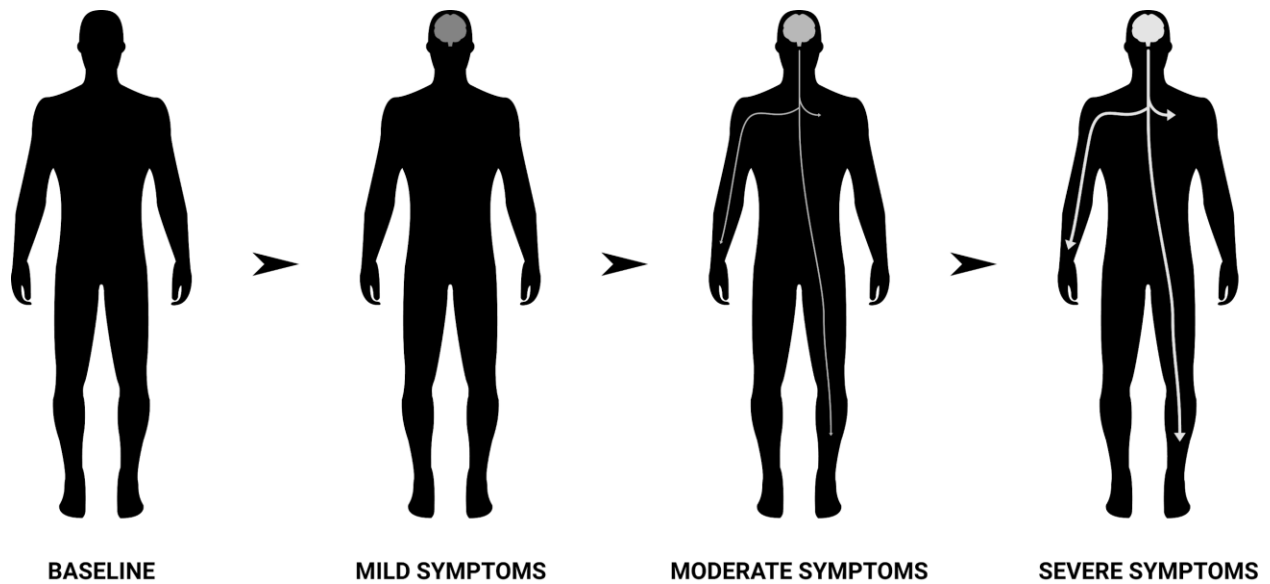
If the initial symptom and suggestive thought are the spark, worrying is like fanning the flames. This new adrenaline causes our heartbeat to get faster and stronger (causing a more pronounced step 1). If we worry about it again (step 3), that leads the amygdala to produce even more adrenaline.

The cycle continues a few times, and our body makes so much adrenaline that it has to let it out through other sensations. In the first few seconds of this process, our adrenaline level is low enough that these sensations are minor, usually just a more energetic emotional brain—one that is jumpier and produces suggestive thoughts more frequently (step 2). These new thoughts may come with a sense of urgency like *Am I about to embarrass myself?* or *Do I need to leave right now?* or *Am I going crazy?*

If we continue to worry about the original symptom or these new thoughts, our amygdala produces even more adrenaline, until organs outside the brain start to feel the

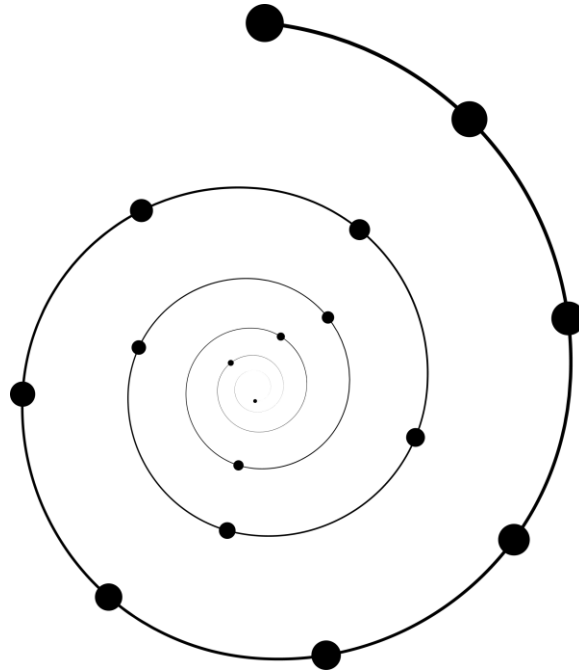
effect, like the legs and stomach. This causes some mild physical symptoms, like shaky knees and butterflies in the stomach.

The more we worry, the more adrenaline our body will produce. Eventually, our body hits a peak where it produces adrenaline at the highest rate it is physically capable of. At this point, we are hit with physical and mental symptoms strong enough to cause many of us to rush to the hospital: full-body shivers, extra heartbeats, violent dry heaving or vomiting, intense dizziness, and a flurry of intrusive thoughts about going crazy or dying. For most of us, the first experience with panic opens up a world of discomfort we never knew existed.



The progression of adrenaline and the anxious symptoms it causes during an episode of panic.





The panic spiral. Each time we worry, our symptoms get worse.

Everyone I know, myself included, clearly remembers their first panic attack. It is not an easy thing to forget. This first one typically lasts only a few minutes—if we have not conditioned our body to make a ton of adrenaline, it will eventually run out of steam.<sup>27</sup> But if we continue to worry about anxious symptoms every time they come up, our brain and body change to accommodate.

With enough time, they can regularly make enough adrenaline that anxious symptoms become a constant presence: nausea and rapid heartbeat multiple times a week, random intrusive thoughts constantly imposing on us for months at a time. If we continue to worry, our body will keep increasing how much adrenaline it makes, leading to worse and more consistent symptoms: frequent vomiting, daily episodes of irregular heartbeats, and dissociation that goes on indefinitely. In some of the worst cases, almost every waking moment can be filled with the strongest possible anxious symptoms, preventing us from regularly sleeping, eating, and even drinking. When I said I went from normal college student to someone who could barely function, this is why.

In the initial days I fell into the spiral, I had so many uncomfortable symptoms that it was hard to focus on just one. I was nauseated, but my worrying about it caused me to dry heave every time I tried to eat or drink. I got massive adrenaline rushes multiple times a day, but since I kept thinking about all of the negative things they could

lead to, my body turned each one into full-body shakes that would sometimes last for hours. I got strong flashes of intrusive thoughts every couple of minutes, but because I worried about them every time they came, they kept coming harder and faster.

To make matters worse, the medication that was supposed to be helping me was not working, nor were the so-called anxiety-stopping techniques I was given, shattering any hope I had of getting better and giving me one more reason to worry. And as is unfortunately familiar to so many of us, every time I got in bed and began to drift off, my body jerked awake, ensuring I got no more than an hour of fractured sleep and making the next day even worse.

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## The Science of Recovery

When we look at anxiety in the traditional way, as one mechanism and in terms of chemical imbalances or disorders that we have to adjust, it is impossible to make sense of it. We gradually become more and more victimized by a genetic problem that we have not yet identified and can only find relief through medication (which itself is being called into question) and anxiety management techniques.<sup>32</sup>

However, when we split anxiety up into amygdala, cortex, and interaction, we see that the problems we experience are not caused by genetics, like we had previously believed. Instead, the anxious symptoms and comfort around excessive worrying are our body's way of adapting to our behavior, the way it is supposed to.

When we look at worrying as a choice, rather than a complex imbalance of chemicals, we can understand it like all the other choices we make—as something we do because we think it will benefit us or because choosing not to would make us uncomfortable.

When we combine this idea with what we know about neuroplasticity, we can understand how we work ourselves into unhealthy amounts of worrying, just like we adjust to unhealthy amounts of eating and unhealthy levels of physical activity.

When we understand how worrying activates the amygdala, the connection between behavior and symptoms becomes clear. Just like maintaining bad posture causes pain, we can see how excessive worrying causes uncomfortable anxious symptoms.

And when we understand this connection is a behavioral feature and not a genetic fault, it finally makes sense why anyone can worry excessively, have panic attacks, and develop compulsions, regardless of their genetics.<sup>33</sup>

Within this new understanding comes a groundbreaking thought, one that unlocks infinite potential for treatment: if excessive worrying and anxious symptoms happen due to conditioning, then just like any other conditioning our body undergoes, it can be undone.

When we have been overeating for our entire lives, we may reach a point where we are constantly suffering from weight-related problems, like joint issues or liver dysfunction. By this point, challenging the values that make us overeat will feel uncomfortable. However, if we recognize the discomfort will only be temporary, and give value to our long-term health, we are able to choose differently—to eat healthily. Once we start eating less, our brain adjusts, making it mentally easier to do so again. After a

few weeks, our body also adjusts by slowly reducing its production of hunger hormones and burning the fat. The end result is that, once our body reaches a normal weight and our diet is healthy, our weight-related problems go away.<sup>34</sup>

Conscious worrying and anxious symptoms work the same way. Our valuations may become so unrealistic they lead us to worry all the time, which will lead to constant anxious symptoms and an overactive emotional brain. But if we understand why this happens and how to change it, we become able to choose differently—to reexamine our valuations so that we choose not to worry, even if it feels temporarily uncomfortable. Over time, this leads our brain to become more comfortable without worrying, making it easier to worry less. As a result, the body will produce less adrenaline, slowly tuning down the strength and duration of anxious symptoms.

The less we worry, the more the brain and body do what they were built to do: readjust. The brain becomes more and more comfortable without worrying, and the adrenaline becomes less and less present.

In time, this means that we can do more than just manage anxious symptoms or cope with them, it means *we can return to baseline*—a baseline where we no longer worry excessively or regularly experience anxious symptoms.

## **The Process of Change**

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## Introduction to Treatment: MBCT, CBT, and ERP

In this book, we will cover three different therapies, each for a different mechanism in the brain: one for treating amygdala-cortex panic, one for treating excessive worrying in the conscious cortex, and one for desensitizing our amygdala's built-in fight or flight response.

In each section, I will give a brief explanation of the theory behind the therapy. Then I will explain how to apply it in a general setting. After that, I will give examples of how we can apply it in more specific settings, to give you ideas for how to do so yourself.

The first and most important therapy I will discuss in this book is mindfulness-based cognitive therapy (MBCT), which targets the amygdala-cortex interaction. This therapy will be most important for those who experience anxious symptoms, panic, and compulsive urges.

In the previous section, we saw that panic happens when we worry about anxious symptoms—our body produces a symptom, then our emotional brain makes a suggestive thought about it, we choose to worry, and that causes the symptom to become stronger, leading to a spiral. MBCT helps us cut out that third step—to quickly change our response to suggestive thoughts about our health so we choose not to worry, cutting off the body's ability to make more adrenaline.

When we practice it correctly, the initial symptoms will show up (especially at first), but rather than getting stronger and turning into panic, they will stay at the same level then slowly fade away. After a few weeks of MBCT, the body will produce less adrenaline, causing anxious symptoms to appear less often. After a few months, the symptoms will go away entirely.

MBCT is the backbone for the other two therapies but is especially important for the following:

- Panic attacks
- Uncomfortable physical symptoms, from sweating or butterflies in the stomach to more severe ones like nausea and vomiting or muscle tremors
- Uncomfortable mental symptoms like depersonalization, thoughts of going crazy, thoughts that are violent or bizarre, and compulsive urges

The second form of therapy we will cover is called cognitive behavioral therapy (CBT).

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**Using the Three Therapies to Change Behavior and Eliminate Anxious Symptoms**

## **The MBCT Method for Anxious Symptoms and Panic**

Mindfulness-based cognitive therapy will be our weapon against panic and high adrenaline. I start this chapter with a general introduction to MBCT methods, then go into how to apply them to the most common anxious symptoms, and finish with some general advice.

Throughout our lives, we will encounter many different symptoms and situations, so we will have to apply MBCT in different ways. For this reason, rather than giving you a premade set of responses, I will help you make your own.

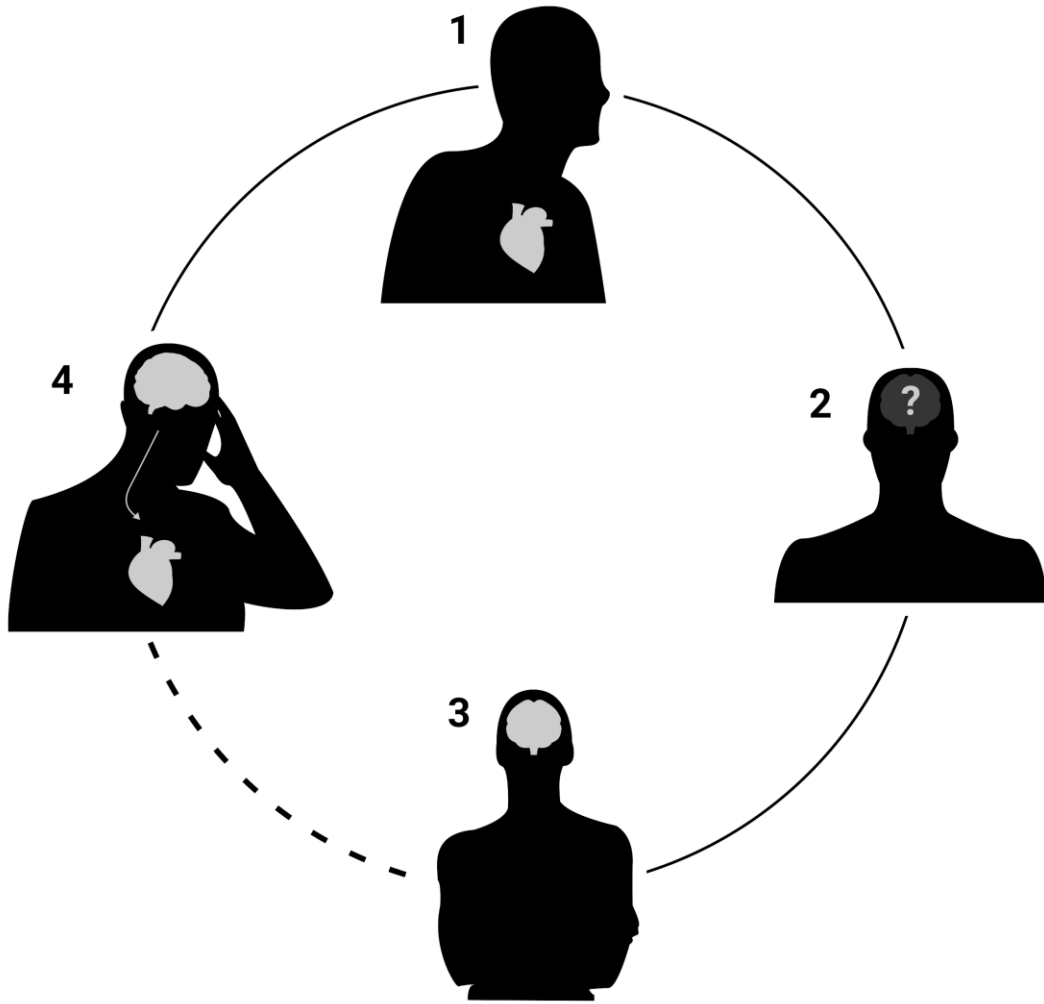
The best way to read through this chapter is first to read about the theory and the method, then one or two symptoms you have trouble with, then the general advice section at the end of the chapter for some helpful tips.

### **Theory: The Panic Spiral**

Recalling from a few chapters ago, panic happens when we worry about anxious symptoms. The process looks like the following:

1. We experience an anxious symptom out of our control.
2. Our emotional brain creates a suggestive thought about our health, also out of our control.
3. We choose to worry about it, sending the signal to the amygdala to get ready for danger.
4. The amygdala produces adrenaline out of our control, leading the symptoms to get stronger, and bringing us back to step 1.





The four steps of panic.

## PANIC WITHOUT INTERVENTION



The timeline of panic without intervention.

In old treatment methods that did not recognize this pattern, people were often given so-called anxiety-stopping exercises, like breathing techniques. These techniques were meant to try to suppress that fourth step—the adrenaline release throughout our body—as slower breathing might cause a slight reduction in mild symptoms. This led some people who worried about those particular symptoms to experience minor relief.

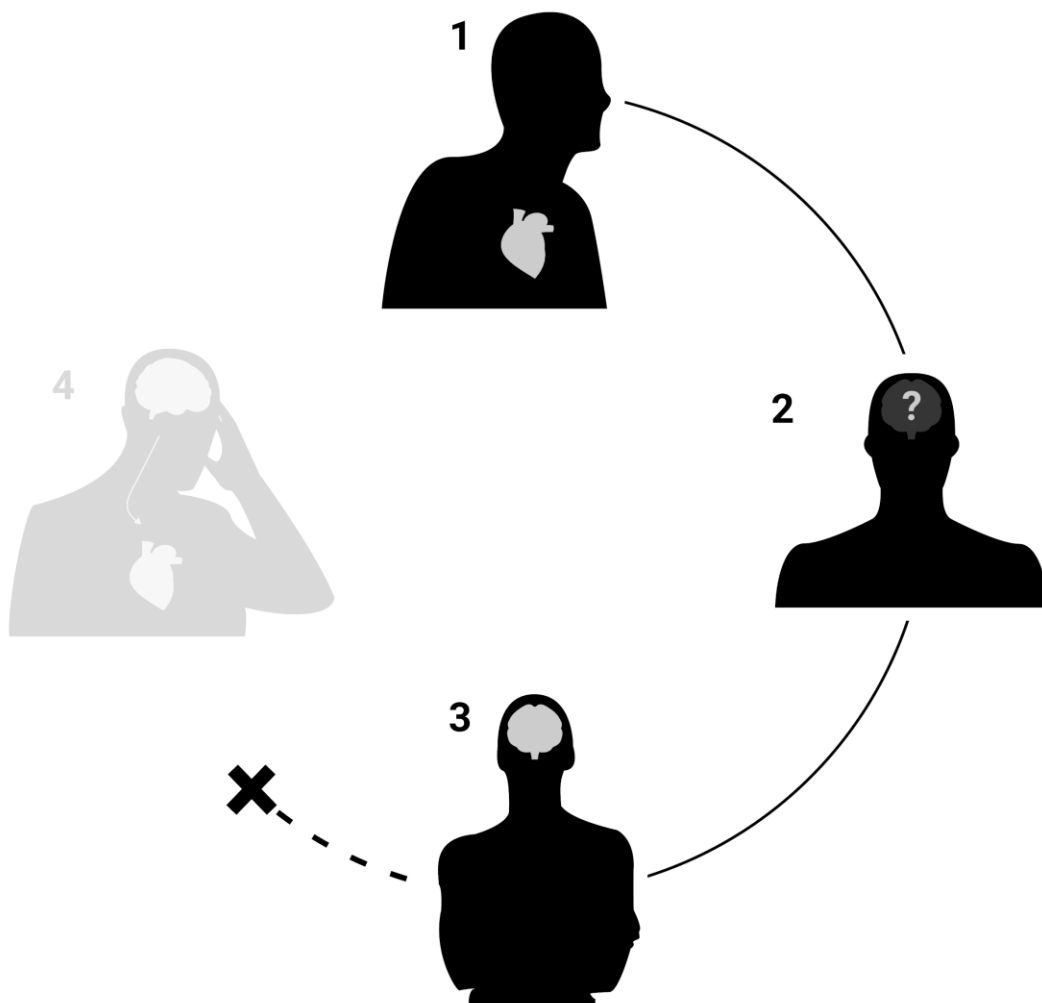
However, no matter how hard we consciously try, *that fourth step will always be out of our direct control*; we can breathe as deeply as we want, but we cannot do anything to stop the wave of adrenaline the amygdala produces. In fact, rather than actually stopping adrenaline, these techniques only *redirect* symptoms to other areas of the body, like the muscles, causing them to jitter and shake more.

For this reason, such stopping techniques have been compared to scratching at a rash—our body is already releasing adrenaline and breathing on its own, and trying to get in its way is not only unnecessary but also leads us to worry (and produce more symptoms) when we fail. For this reason, author Barry McDonagh<sup>35</sup> says relying on these stopping techniques is a lot like jumping into quicksand: the more we fight to break free of anxious symptoms, the more they suck us in.

Instead of focusing our efforts on a step of the process we cannot control, we should focus on the one we can: step three—our worrying.

When we change our behavior, we break free of the cycle after just a few spins; our amygdala will produce adrenaline and our emotional brain will suggest thoughts, but rather than getting worse because we worry, they will level out and slowly go away.

In other words, the key to ending panic is *experiencing anxious symptoms without worrying about them*. When we do so, we stop the spiral dead in its tracks and let the body release adrenaline without making more.

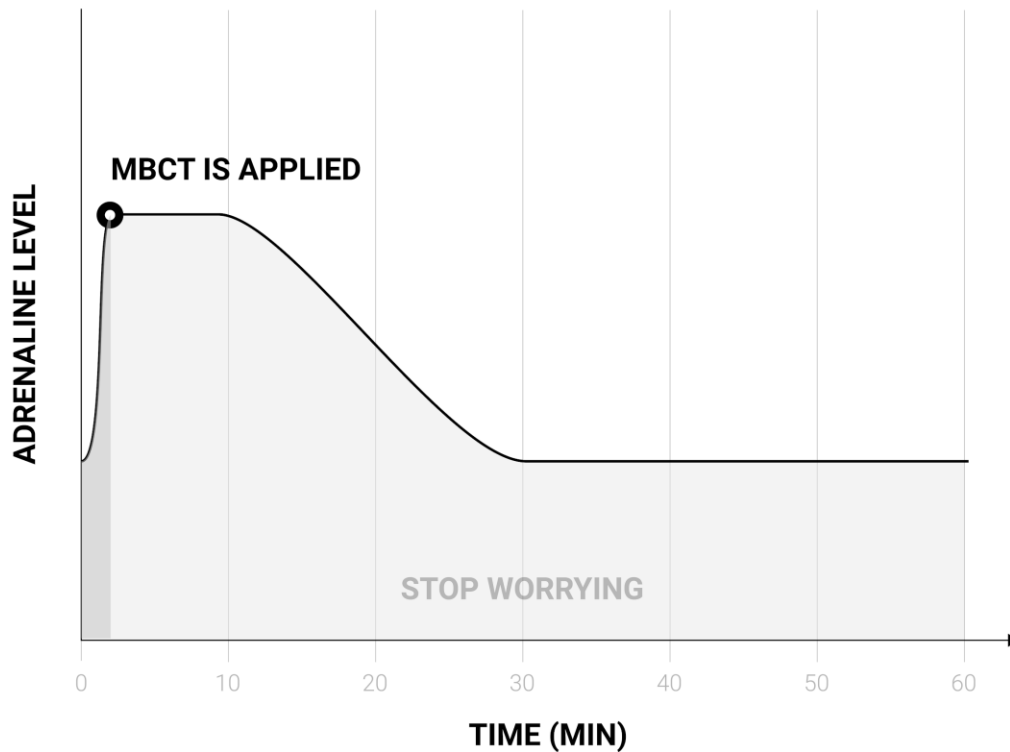


How to stop panic: remove the third step.

When done correctly, the first few waves of adrenaline will come, but the symptoms will not get worse, as they do in panic. Rather, we will experience them for a

minute or two, then they will slowly turn into milder symptoms until our body releases all of the leftover adrenaline.

## PANIC WITH INTERVENTION



The timeline of panic with intervention.

Mindfulness-based cognitive therapy is the way of applying this idea. The MBCT method in this chapter will help us quickly minimize the benefits and maximize the costs of worrying in our head. That way, when a suggestive thought arises, we choose not to worry about it, leading our body to stop producing more adrenaline.

The MBCT method consists of four steps: **recognize**, **respond**, **return**, and **remind**.

### MBCT Method: Recognize

The cue to start the MBCT process is *when a suggestive thought about an anxious symptom enters our head*. Our first step: recognize that thought.

By recognizing, I mean spelling out the *exact* thought we are worrying about. This might seem obvious to some, especially those of us who have practiced doing so

in therapy or meditation. But if we have been worrying for most of our lives, it almost feels like we are worrying about nothing.

The simplest way we can practice recognition is by answering the question “What am I worrying about?” Our answer should be simple but specific—a few clear words. For example, *I am worrying I won't be able to catch my breath*, *I am worrying I am having a heart attack*, or *I am worrying that I am going crazy*. The shorter and more specific our answer, the easier the following steps will be.

This step is the key to the rest of the process because we have to know what thought we are trying to address before we apply techniques to it. Many people I have worked with are so eager to jump into the other steps that they forget this one and end up stuck, so make sure to give it proper attention.

This concludes the first step: **Recognize the thought we are worrying about.**

## **MBCT Method: Respond**

Once we have found the thought we are worrying about, the next step is to respond to it in a way that helps us choose not to worry. To do this, we have to minimize the benefits of worrying and raise the costs—to help us understand why we do not need to worry.

To help us in this step, I would like you to examine your history with anxious symptoms. Despite all the panic you have experienced, you are still here. You have not had a heart attack, stopped breathing, or gone crazy like your emotional brain has suggested, even though each time, it said this would be *the* panic attack that ruins everything.

You are still alive, and you are still sane. In fact, you have probably already been through some of the scariest experiences your emotional brain has brought up—embarrassment, illness, physical danger, heartache—and made it through just the same.

The backbone of all MBCT methods, the idea that underlies the entire recovery process, is gathered from our own experience—*anxious symptoms are harmless, so we do not need to worry about them*. In fact, worrying about anxious symptoms has gotten us nowhere and has not actually protected us from danger. So as comfortable as we might be worrying about these symptoms, the cost has been enormous—hundreds or thousands of hours of anxious discomfort.

The response portion of MBCT is how we apply this idea. Once we have recognized the suggestive thought that is troubling us, we say a few quick words to

immediately shut down any desire to worry about it. This can take many forms, but a generic response that works for many people is saying, *Okay, whatever, I know it'll be fine*. As our heart starts to beat more quickly and we identify a thought about our chest exploding, we say to ourselves, *Okay, whatever, so let it happen. My heart has done this a thousand times before. I know this symptom will go away as quickly as it came*.

This applies to any thought our emotional brain makes:

*What if I am wrong and my heart really is about to fail?* Okay, whatever, someone nearby will see me and help.

*What if I stop watching my breathing and I pass out?* Okay, whatever, let it happen already. I would rather stop breathing than keep worrying forever.

*What if this is a sign that I am actually going crazy?* Okay, whatever, it is out of my control anyway, so I guess I'll go crazy.

This is just *one* example of a response we can give. I have heard responses that are compassionate (*You'll be alright, I promise*), sarcastic (*Oh, here come those big scary symptoms again. Look out everyone, my heart rate is slightly faster*). I have heard clinical (*These are just symptoms my body is using to release adrenaline. As long as I let them come and go without worrying about them, my body will return to baseline on its own*) and detached (*Ah, screw it, I don't care. Let it happen*). Different people and different situations require different answers, so play around with your answer to find out which one works best in the moment.

When we do this correctly, our symptoms will still be there, but rather than feeling like a threat, they will feel like a small annoyance we can work through, like a headache or an upset stomach—symptoms we know will go away soon but that we can deal with for a little bit. The end goal is to get comfortable experiencing all these uncomfortable symptoms. As long as we do that, our body will stop producing more adrenaline.

In summary, the second step of the MBCT process is this: **R**espond to our most pressing thought...

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## Applied MBCT: Physical Symptoms

I would like to discuss some of the most common anxious symptoms and explain why they happen. This way, whether they arise in social situations or business meetings, during a haircut or an interview, we will be able to answer them. I also give a few example responses to give you ideas for your own.

### Adrenaline Rushes, Trembling, and Twitching

If you have ever had a panic attack, you know exactly what an adrenaline rush feels like. This is the cold flush we get throughout our body, like pins and needles. Usually, adrenaline rushes are followed by trembling and jitters as our body tries to put all of that adrenaline to use.

While adrenaline rushes are the most intense symptom, they are also the easiest to respond to. This is because an adrenaline rush cannot be caused by anything other than our amygdala and will never lead to anything worse; our body can create as much adrenaline as it wants, and we will always be able to dispense of it just fine.<sup>36</sup> When we do not worry about this, it goes away on its own.

As adrenaline starts coursing through our veins and our emotional brain thinks, *Oh no, is this a sign of something horrible?*, we can confidently answer, *No, it'll be fine*, every single time. The shaking, trembling, and twitching are our body's natural way of dispensing its extra adrenaline, so rather than worrying about them, we should welcome them as a sign that our adrenaline levels are going down. Note, these twitches can last for an hour after the adrenaline rush that caused them, so let your body shake it and work on something else.

### Shortness of Breath

Shortness of breath is one of the most common symptoms of high adrenaline. When we are short of breath, we sometimes go into manual breathing mode—we worry that, if we do not think, *Breathe in, breathe out*, we will stop breathing. I very distinctly remember sitting on my balcony worrying about this symptom for hours at a time, to the point where I felt like I was drowning out of water. It is a horrible feeling.

Luckily, much like adrenaline rushes, the answer to this suggestive thought is also easy. The part of the brain that controls our breathing, just like the one that makes

adrenaline, is out of our control and will keep working without our conscious intervention; no matter how little oxygen we think we are getting, nothing we can do will make our lungs stop breathing.<sup>37</sup> We could try to control this process all day, but even when we stop trying, we continue to breathe normally. In fact, the only way our breathing will return to normal is if we let the brain and lungs do their thing without trying to intervene. This is the benefit of not worrying.

As our breathing returns to normal, we might feel slight tingling or hot flushes. This is a good sign, as it means all of the blood our heart was drawing away from our limbs is getting sent back, meaning we are relaxing out of fight or flight.<sup>38</sup>

If the urge to check on our breath comes back, we can remind ourselves our body will take care of itself, and no amount of checking in will change that. So let yourself feel as out of breath as your body wants for now, then get back to what you were doing.

### Case Study: Shortness of Breath and Public Speaking

Worrying about public speaking and the anxious symptoms that come during it are something everyone experiences, but if we have been excessively worrying for many years, our adrenaline levels will be far higher than others'.

One person I spoke to said whenever he was about to present at work, his chest would get tight and he would start to sweat. His emotional brain would ask, *What happens if I screw up because I can't catch my breath?* He started imagining what would happen, causing the symptoms to get even stronger, so when he started talking, it was always between thoughts of *Breathe in, breathe out*.

When we reviewed his history with these symptoms, he saw the way out. As the adrenaline began to flow and his chest felt tight, he recognized the suggestive thought *What if I can't breathe and I have to get rushed to the hospital?* He then responded to them with *Whatever, my coworkers are nice and they will forgive me*. He returned his focus to speaking, and as those suggestive thoughts popped back up, he answered with *Whatever* so he did not panic.

After a few speeches, he found he could answer any thoughts that came, enabling him to focus on his speech the whole way through. Weeks later, he no longer got short of breath at all but knew that, even if he did, he would not worry.



## **Irregular Heartbeat, High Heart Rate, and Tight Chest**

Heart and chest symptoms are where people start to have difficulty—cardiovascular disease is so common in the US these days<sup>39</sup> that having a heart attack is always in the back of our mind. So when our heartbeat becomes irregular and our chest tightens, when our heart rate skyrockets and our heart feels like it is skipping a beat, many of us call an ambulance.

Before we get into how to answer this symptom, it is important to clear up a few misconceptions. First, no amount of adrenaline will ever cause heart attack or stroke. This is because the mechanisms behind heart attack and stroke are completely unrelated to worrying and anxious symptoms; they happen when our arteries become blocked by deposits, a process that has everything to do with our diet and nothing to do with our brain.<sup>40</sup> Second, the irregular heartbeats we have are actually harmless. In fact, there is plenty of research that shows completely healthy people experience them, and they have no long-term effect on our health.<sup>41</sup> The technical term for these heartbeats is ectopic beats—not a missed heartbeat as some people believe but an extra one between our normal rhythm. This is our heart's way of making use of all the extra blood it is receiving. Ectopic beats feel like our system is getting a jolt or like a heart hiccup. Lastly, the chest tightness we experience is an effect of adrenaline getting sent to the chest muscles, causing them to flex. This may cause our breathing to become more labored, but it will not cause us to stop breathing.

As we feel our chest tighten, our heart rate increase, and the ectopic beats come, it is important to remind ourselves they are okay and even a welcome presence. The more our body does this, the more adrenaline we are letting out of our system. So when suggestive thoughts arise, we can respond to them and let our body do what it was built to do...

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## Applied MBCT: Mental Symptoms

Mental symptoms are milder than physical ones, but they also tend to give people more trouble because they are much harder to rationalize—when we have the jitters or nausea, we can easily point the finger at adrenaline. But when we suddenly feel disconnected from our surroundings, and thoughts of going crazy pop into our head, it is much harder to make sense of what is going on. In the following chapter, I will review the most common mental symptoms of high adrenaline to help you respond to them.

### Depersonalization

Of all the anxious symptoms I have experienced, depersonalization (DP) was the hardest to explain. Each person experiences it a little differently, but is often described as feeling like you are a passenger in your own body, seeing your arms from the third person, being mentally and emotionally detached from your surroundings, or having a delay between what you see and your thoughts about it. Trying to explain this to someone who has never experienced it can feel impossible, and when no one seems to have an answer, we can mistakenly believe we are going crazy (which I discuss next).

The exact mechanism behind DP is not yet known, but the most prominent theory states that having an abundance of adrenaline (leading to an abundance of anxious symptoms) dulls our ability to process each individual one<sup>65</sup>—when our emotional brain is trying to bring too many sights, sounds, smells, and tastes to our attention at once, our conscious brain compensates by shutting certain ones out, leading to a feeling of detachment.

As frightening as depersonalization may seem at first, it can only come as a result of adrenaline overload and not from any other condition. And as you have noticed, it does not lead to any other mental conditions, nor even affect our behavior, so we have no reason to worry about it.

Though it may be difficult to imagine, many people come to enjoy depersonalization when they stop worrying about it. There is nothing inherently bad about feeling disconnected. In fact, when people experience it during a drug trip, they come to enjoy it.

Adopting this same positive attitude will prevent DP from sticking around and eventually get it to go away.

## Thoughts and Feelings of Going Crazy

While DP might be the strangest symptom, the feeling of going crazy is the one that gives people the most trouble. Even in the middle of crippling nausea, vomiting, or insomnia, many of us still find the thought of losing our mind to be the most important. In my first weeks of treatment, I spent hours each day researching the symptoms of bipolar disorder and schizophrenia to check if I was having a mental break.

To make matters worse, there is such a stigma around psychotic illnesses that it makes the topic unapproachable to most people. Empathizing with physical symptoms like nausea and insomnia is easy because all of us have felt them at some point in our lives. But thoughts of going crazy only become noticeable to people with high adrenaline levels. For this reason, so many of us feel like we have to keep these thoughts secret—to suffer in silence—which makes our experience with them so much worse. If you are going through the same thing right now, I feel for you.

As difficult as it might be to imagine, the key to getting rid of this symptom is in our hands, just like all of the others—understanding why it happens and how to stop worrying about it...

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## Using Cognitive Behavioral Therapy to Curb Conscious Worrying

Now that we understand MBCT, we have all the tools we need to stop worrying about anxious symptoms. We learned that, in almost all cases, worrying about these symptoms is not worth the time and the discomfort it leads to. And in the exceedingly rare case that our symptoms are due to another condition, we learned how to tell the difference so that we can take appropriate action.

However, unlike worrying about anxious symptoms, worrying about other subjects *can* be worth the time and lead us to act productively—situations in which *Whatever, so be it* is not the best approach. This is especially true for relationships, finances, and our career. For this reason, we need a method to identify what worrying is helpful and what is unhelpful. This is the purpose of CBT.

### Theory: Helpful, Productive Worrying

To differentiate between healthy and unhealthy worrying, we can use one hard and fast rule...

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## **Using Exposure and Response Prevention Therapy to Mute Anxious Symptoms**

Exposure and response prevention is the last form of therapy I will discuss in this book. The previous two therapies, MBCT and CBT, were used to change our conscious cortex. This chapter will focus only on the amygdala's internal programming—a much smaller (though still important) part of the recovery process.

### **Theory: The Fight or Flight Response**

Recalling from the first chapter, there are two reasons our amygdala produces adrenaline...

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## **Applied ERP: Direct, Indirect, and Imaginal**

### **Direct ERP**

The simplest way we can expose our amygdala to its stressors is directly. This method is most effective for stressors that are easily accessible and works best after we have plenty of experience practicing MBCT so we do not worry.

For those of us who experience anxious symptoms at school, direct ERP means attending class and letting all of our worst symptoms manifest while using MBCT to stop ourselves from worrying. For those of us who avoid socializing at work, this means sitting in the break room or regularly attending work functions and using MBCT to prevent panic.

After a few direct ERP sessions, our amygdala's response begins to weaken,<sup>74</sup> so we have to up the intensity of frequency of our exposure. If attending class no longer produces symptoms, but they still come up when speaking with others, we should make some light small talk once a day to further desensitize. If we get comfortable with small talk, we should try for extended conversations. With enough time, anxious symptoms will hardly come up at all, even in these more pressing situations.

### **Indirect ERP**

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## **Lifestyle Changes**

## **Lifestyle Changes to Accelerate Your Recovery**

The therapy techniques discussed in this book will be the key to recovery and should be your focus. However, you may benefit from trying a few of the following recommendations to help you practice them more effectively, as well as to reduce discomfort in the interim.

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### **Meditate the Right Way**

Just like exercise, meditation is proven to have positive effects on all kinds of bodily processes, from mood to digestion.<sup>78</sup> And as something we can do at home and even in bed, there is no reason not to.

However, before we start to meditate, it is important to understand how to do it. In movies and TV shows, characters are shown meditating by “clearing” their mind and sitting in silence, then coming out feeling refreshed. As any experienced meditator can tell you, it is impossible to make our brain stop thinking like that, and actual meditation is physically and mentally draining.

This unrealistic understanding of meditation is why so many people struggle to get into it. If our goal is to fight against the thoughts our brain makes for a half hour, then pretend like we enjoyed it, we will not last a week. For us to actually benefit from meditation, we have to work with the brain rather than against it...

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### **Speak to a Therapist**

Therapists are like dieticians or fitness instructors—they are there to help us establish healthy habits and, as we get used to them, to check and correct our methods. They are not necessary for making progress, but they can be helpful in pointing out our cognitive blind spots.

The ideal talk therapy session, like the ideal training session, is composed of the following: a review of what we achieved in the last week, a practice of the techniques we will be using this week (such as in CBT or ERP), a discussion of any hang-ups we might have, and a time to plan for the week ahead.



The experience we have in therapy will depend a lot on which therapist we pick. If we have someone who is knowledgeable and works well with us, we can make a lot of progress. If we do not, however, it can hold us back. For this reason, I have made the following checklist that we can use to find the ideal therapist:

1. Does my therapist have experience with anxious symptoms and excessive worrying?
2. Is my therapist nonjudgmental?
3. Does my therapist listen to me?
4. Do I have good chemistry with my therapist?
5. Does my therapist dispense helpful advice?
6. Does my therapist help me improve in meaningful ways?

The ideal therapist also requires an ideal patient; their guidance will only help as long as we use it. For this reason, I created this checklist we can use to analyze ourselves and make sure we are getting the most out of therapy:

1. What am I trying to get out of therapy?
2. Am I entirely honest with my therapist?
3. Do I accept my therapist's advice nonjudgmentally?
4. Do I allow my therapist to disagree with me?
5. Have I been doing my homework?
6. Have I worked with my therapist for long enough to make decisions about him or her? (My recommendation is at least four sessions with a therapist before deciding to stay or switch)

## **Have a Healthy Support Network**

Having a healthy support network can make a world of difference during recovery. When we have people to share in our successes and help us push past setbacks, it can make our journey a lot smoother. However, not all support networks are born equal, and having no support network can sometimes be better than having a bad one...

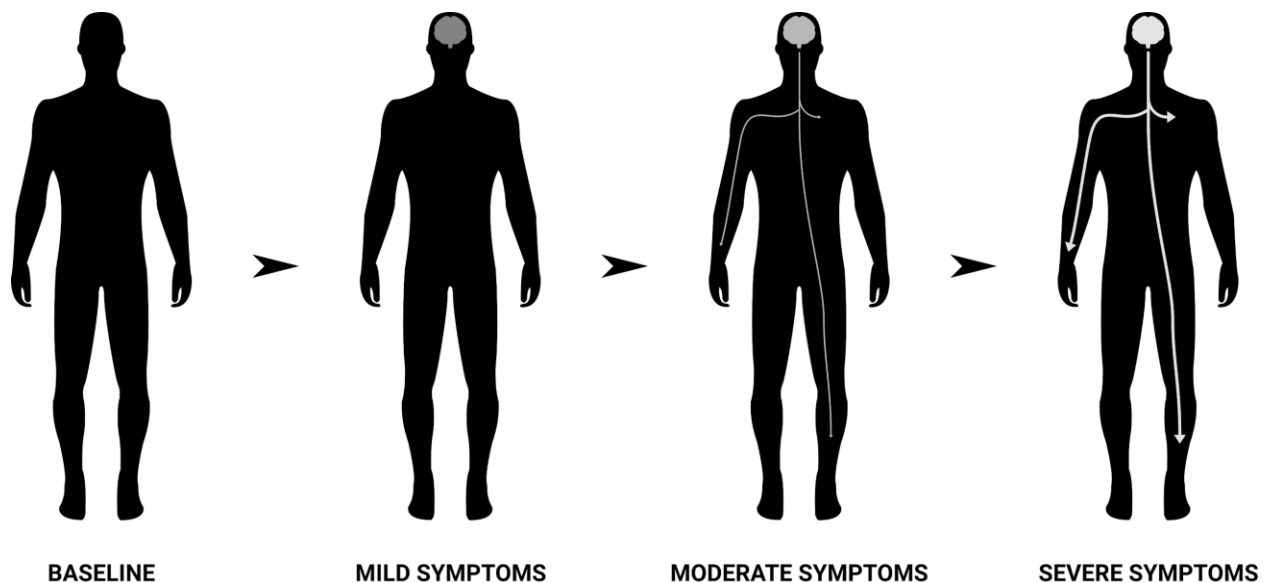
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## Recovery Roadmap

## Recovery Roadmap

After starting to recover, it is natural to wonder how long it will take or whether we are on the right track. Now, I want to answer any questions you may have by giving you a general roadmap for your recovery.

As we have discussed, problems with anxious symptoms are rooted in worrying. When we worry, our brain becomes more comfortable with doing so more often. In addition, it leads the amygdala to produce adrenaline, which our body lets out through symptoms. When our adrenaline levels are low, we will only experience mild mental symptoms, like more serious suggestive thoughts more often. But as we continue, our adrenaline levels increase until we experience physical symptoms like nausea, high heart rate, and shortness of breath. The more often we worry, the stronger and more frequent these symptoms will get, until they show up all day, every day.

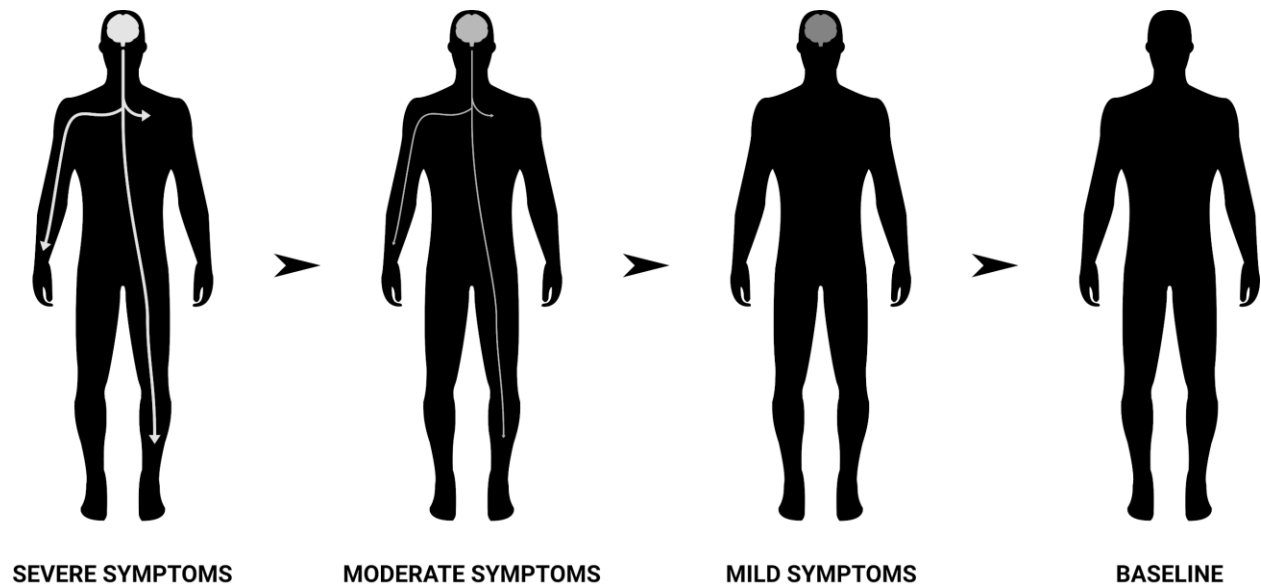


The progression of adrenaline and the anxious symptoms it causes.

Looking at this progression, we can say that anxious symptoms begin in the brain and work their way outward to the heart, lungs, stomach, and muscles as they get more intense.

Recovery looks like this in reverse. When we curb our worrying, it leads our body to make less adrenaline, causing physical symptoms like nausea and shaking to become weaker. Eventually, they become so weak that they are unnoticeable, leaving us with only mental symptoms. As we worry less and expose our amygdala to more of

its stressors, our body dials down its adrenaline even more, until these mental symptoms go away. Then, we are left with only mild symptoms like fatigue and brain fog. Once we reach a point where we spend little or no time each day worrying, these symptoms begin to clear up as well, signaling the end of the acute recovery period.

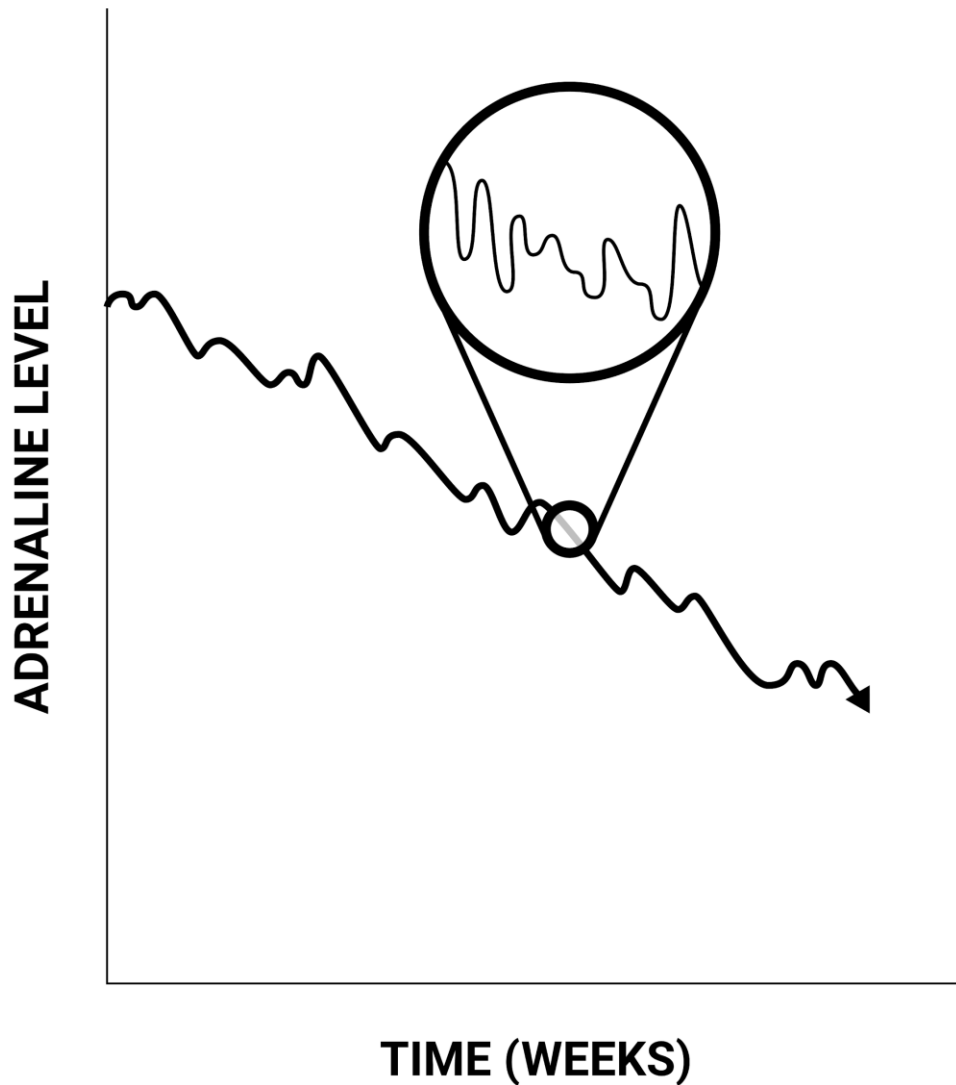


Symptoms gradually fading over the course of recovery.

At this stage, all that remains is to enjoy our hard-fought progress and keep practicing MBCT and CBT as needed.

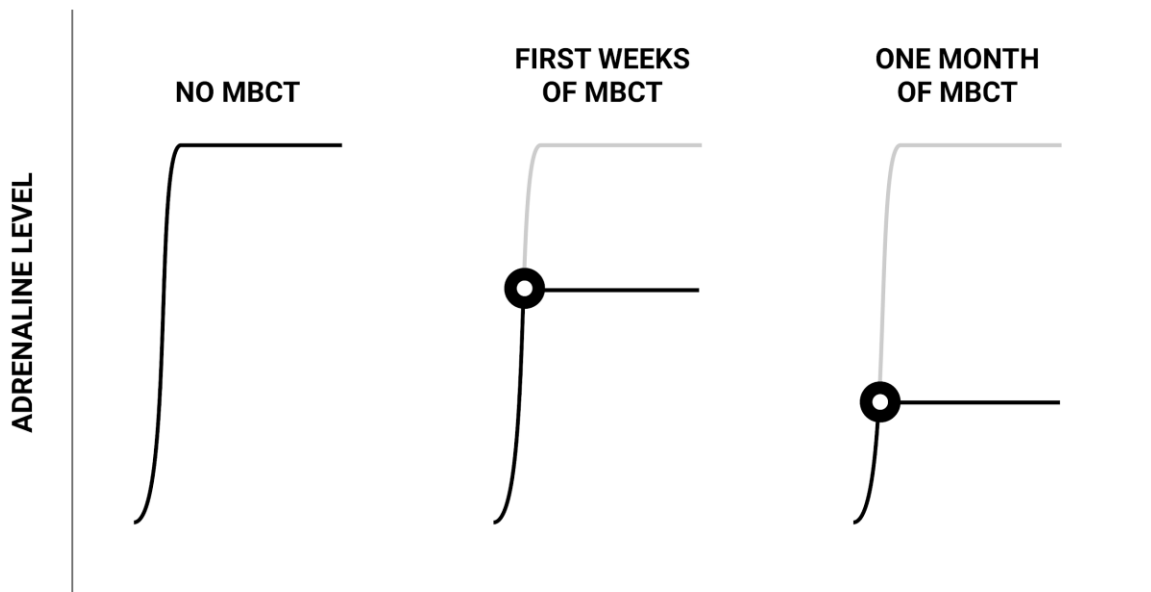
### **Gauging Progress**

While this view of adrenaline is helpful for understanding our recovery in the long term (over several months), we cannot use it to gauge our short-term progress (over a few days or weeks). This is because the body adjusts its production of adrenaline very slowly and gradually, and the day-to-day symptoms we experience will fluctuate based on factors like sleep, diet, activity levels, and even time of day.<sup>85</sup>



Adrenaline levels over the course of many months. Even when our adrenaline levels are decreasing, we will still experience daily fluctuations.

A much better way to gauge short-term progress is by looking at our response. As you can see in the figure below, the better we become at applying MBCT, the shorter and less intense our episodes of high adrenaline will be. Thus, rather than measuring our progress by how often symptoms appear, it is much better to measure how consistently we are applying MBCT.



How episodes of high adrenaline look as we progress through MBCT.

### Setbacks

While it would be ideal if recovery were a straightforward process, we are still human. Sometimes, we work on correcting one valuation for weeks, only to find that there is another one affecting us. Occasionally, we hit a cognitive blind spot and go back to worrying in ways we thought we had overcome. An old symptom might come back and the answer we used no longer works, or a new one comes up and it takes us time to figure out how to respond...

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This concludes the sample for The Anxiety Encyclopedia. The full book is available at [https://www.amazon.com/Anxiety-Encyclopedia-Your-Path-Recovery-ebook/dp/B08NCDFLGN/ref=zg\\_bsnr\\_11196\\_7?\\_encoding=UTF8&psc=1&refRID=FGDDKJEM02JP9532SMMT](https://www.amazon.com/Anxiety-Encyclopedia-Your-Path-Recovery-ebook/dp/B08NCDFLGN/ref=zg_bsnr_11196_7?_encoding=UTF8&psc=1&refRID=FGDDKJEM02JP9532SMMT).

If you enjoyed what you read, please @ me on [Twitter](#) / [Instagram](#) , or leave a comment on The Anxiety Encyclopedia's [Facebook page](#). Getting this book into the hands of those who need it is a team effort, so I need your help to get the word out.

For now, I wish you luck on your journey with anxiety, and hope you have a speedy recovery.