

ANXIETY ARTICLE

BY ANDREA PETERSEN

EAR AMBUSHED ME.

F I was early on a December morning in 1989. I was a sophomore at the University of Michigan in Ann Arbor, starting at a wall covered in long sheets of printer paper and trying to figure out which of the listed classes to take for the coming semester.

I felt fine. I was groggy from a late night of studying and touched by a bit of that Midwestern late-fall dread, anticipating another long winter of bundling up against the fierce wind and cold. But I was OK.

And then, a second later, I wasn't. A knot of fear erupted at the base of my spine and traveled upward. My stomach flipped, and I broke out in a thin film of sweat. My heart rate shot up; I felt the erratic *thump thump* banging against my ears, my stomach, my eyes. My breathing turned shallow and fast. Fuzzy gray blotches appeared before my eyes. The letters before me warped, words dipped and buckled.

The onset was as sudden as a car crash. Something in my body or brain had gone dramatically and irrevocably wrong. My noisy internal monologue—usually flitting from school to boys to a

laundry list of insecurities—coalesced around one certain refrain: *I'm dying. I'm dying. I'm dying.* I didn't know it at the time, but I was suffering from severe anxiety, a medical condition recognized by doctors going as far back as the ancient Greeks. Today, 11 different anxiety disorders are listed in the "Diagnostic and Statistical Manual of Mental Disorders," the bible for mental-health professionals, and they are being diagnosed in rising numbers. Unfortunately, even as we have learned more

If you met me now, you probably wouldn't notice my anxiety. But it has been a struggle.

about the varieties of anxiety in recent decades, the underlying causes of the disorder have remained poorly understood. But that is changing. Scientists have started to unravel some of the mysteries of the anxious brain, and their discoveries may soon lead to new and better treatments.

In my own case, the racing heart, the shallow breathing and the terror didn't abate. For a month or so, I barely moved from the living room sofa at

my parents' house, about 90 minutes from campus. I spent the days with my fingers pressed against my neck, feeling my pulse, counting the beats, reassuring myself that I was alive. I developed weird new symptoms: tingling in my face and feet, chest pain, constant vertigo. The world was flat and out of focus, as if I were wearing someone else's glasses. My thoughts careened toward worries about heart attack, stroke, insanity.

Over the next year, I saw more than a dozen doctors. I had several EKGs, countless blood tests, two echocardiograms, a CT scan and an MRI of my brain, and an EEG to check my brain's electrical activity. I took many trips to the emergency room.

This medical odyssey cost my parents thousands of dollars. Doctors suspected multiple sclerosis, a brain tumor, Epstein-Barr virus and chronic fatigue syndrome. I dropped most of my classes and barely left my room. At one point, I peered over the banister of a rooftop parking garage and thought of jumping. I went to a psychiatric emergency room and was sent home. I had six sessions of psychotherapy, in which I was asked whether I was angry with my father. I largely stopped eating.

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This essay is adapted from Ms. Petersen's new book, "On Edge: A Journey Through Anxiety," which will be published by Crown on May 16.

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REVIEW

*My Escape From Anxiety**Continued from the prior page*

And still no one knew what was wrong with me.

Fast-forward to the beginning of the next school year. I was sitting in a psychiatrist's office at the campus health center, telling the doctor that I wouldn't—I couldn't—leave until she did something to help me. She said that she could prescribe Prozac, an antidepressant, or she could refer me to the anxiety disorders program at the University of Michigan hospital. *Anxiety disorder*. It was the first time that anyone had said those words to me.

I eventually learned that I had symptoms of four different conditions. I was having panic attacks—sudden, intense periods of blinding terror, rapid breathing and chest pain—several times a day (diagnosis: panic disorder). The rest of the time I worried, living with the nervous expectation of imminent disaster (diagnosis: generalized anxiety disorder). I had developed a long list of particular fears, too: dentists, flying, driving on highways, taking medication, touching dirt, using a new tube of toothpaste and even licking envelopes (diagnosis: specific phobia). And my world was becoming smaller as more places became no-go zones: movie theaters, stadiums, lines (diagnosis: agoraphobia).

The number of Americans expected to have at least one anxiety disorder in the course of their lives is staggering: one in three, ages 13 or older, according to researchers at Harvard Medical School and Technische Universität Dresden. The number is even higher for women—about 40%. Each year, about 40 million American adults have an anxiety disorder, and that doesn't include the millions of garden-variety worriers and insomniacs whose anxiety, though not debilitating, leeches away joy and steals their peace of mind.

Rates of anxiety disorders, as well as depression, seem to be increasing among young people, particularly college students. According to a 2016 survey by the American College Health Association, 17% of students were diagnosed with or treated for anxiety problems during the previous year, and nearly 14% were diagnosed with or treated for depression. That is up from about 10% each for anxiety and depression in 2008.

A certain amount of anxiety is a good thing, motivating us to study for tests, prepare for presentations, save for retirement. Too much anxiety, however, can be incapacitating and expensive. Anxiety disorders cost the U.S. about \$63 billion a year, according to a 1999 study published in the *Journal of Clinical Psychiatry*, the most recent estimate available. The tally includes doctor and hospital visits, psychiatric treatment, prescription drugs and the value of lost productivity at work. Anxiety can also lead to depression, substance abuse and even suicide. Anxious people who work have lower incomes. They are less likely to marry, and, if they do, more likely to divorce.

If you met me now, you probably wouldn't notice my anxiety. I have a career that I love. I'm happily married, with an adorable 8-year-old daughter. I have friends, laugh a lot, go to parties and bake pies. My affliction is often invisible. **NEXT PDF**

I certainly don't see my anxiety as a gift, but it has some upsides.

My therapist first had me create a "fear hierarchy," a list of things and situations I avoided because of anxiety. Standing in line at a coffee shop. (Lines made me feel trapped.) Taking a vitamin. (I was afraid it would make me sick.) Running up a flight of stairs. (I panicked when my heart rate went up.) As the weeks went by, I tackled each one. The idea was for me to actively face my fears by eliciting anxiety symptoms and gathering evidence that experiencing them wouldn't lead to whatever catastrophe I'd conjured up.

There is mounting evidence that mindfulness techniques like meditation and yoga are effective at easing anxiety symptoms, too. And new technologies are spawning treatments that aim to directly target the brain dysfunctions that underlie anxiety disorders.

One approach is called attention bias modification, or ABM. Researchers have discovered that many anxious people have what is known as an attention bias to threat. They simply see more peril in the world. In studies, they respond more quickly to threatening stimuli like angry faces, even when the images are flashed too quickly for them to be consciously processed. ABM treatment often uses a simple (actually quite boring) computer task to try to normalize this attention bias—for instance, getting subjects to pay more attention to images of faces with neutral expressions than to those with threatening ones.

Scientists are also experimenting with transcranial magnetic stimulation, or TMS, a noninvasive treatment using a device that is placed over the scalp and generates a magnetic field. TMS has been approved by the Food and Drug Administration for treating migraines and treatment-resistant major depression, and it could help alleviate anxiety symptoms by activating parts of the brain that have been found to be sluggish in people with anxiety disorders.

Many with anxiety rely on medication as well. I finally turned to it in my late 20s, after a health scare: I was walking down Seventh Avenue in Manhattan when a chunk of my vision disappeared. My doctor reassured me that it was just an ocular migraine, a version of the headache in which funky visual changes are the primary symptom, but the episode triggered a swift slide into constant worry about my health—and everything else.

Selective serotonin reuptake inhibitors (SSRIs), like Prozac (fluoxetine), Paxil (paroxetine) and Zoloft (sertraline) are best known as antidepressants, but doctors also prescribe them for excessive anxiety. Reams of studies have shown them to be at least modestly effective in treating anxiety disorders.

My first SSRI made my skin crawl, so I tried a second. At first, I didn't feel much of anything. But slowly, over several weeks, some space seemed to open up in my brain. Instead of the worry occupying, say, 70% of my mind, it now seemed to take up 40%. And the volume of my anxiety was turned down a bit, too.

I'm lucky that I found a medication that worked for me. At least a third of people with anxiety disorders don't get much relief from the available drugs, and even when they do, the drugs can have undesirable side effects. A flurry of new research is trying to use brain scans and other tests to predict which patients will respond to which medications or therapy,

3 But it has been a struggle. In tough years, I take medication and cycle through new therapies. In easy years, I still have to

has some upsides.

5 but practical applications could be years away.

Though I've been on SSRIs for eight of the past 18 years, they have never cured my out-of-whack anxiety. Even on medication, I'll get the occasional panic attack. That's why I always keep another one, Klonopin, tucked in my handbag. Klonopin can melt my anxiety and many of its annoying accouterments—racing heart, shallow breathing, twisted thoughts—in about 30 minutes. It can even derail a full-blown panic attack if I take enough. I don't take it often, but my life "before K" and "after K" is starkly delineated.

Klonopin (or the generic clonazepam) is a benzodiazepine, a class of drugs that also includes Valium and Xanax. The number of American adults who filled prescriptions for such drugs jumped 67% between 1996 and 2013, up from 8.1 million to 13.5 million people. But these drugs can cause a daunting list of side effects and can be addictive and abused. Combined with enough alcohol and other drugs, they can be lethal.

One promising drug is ketamine, most commonly used as an anesthetic but also known as the street drug Special K. It has been shown to relieve symptoms of depression within hours, and there have already been small positive trials with patients with post-traumatic stress disorder

and obsessive-compulsive disorder. A few scientists are even starting to look at MDMA, better known as Ecstasy, as a way to augment treatment.

As I've looked more deeply into the research about my condition and the treatments for it, I've often asked myself: If I could wish my anxiety away, would I?

I certainly don't see my anxiety as a gift, but it has some upsides. When I'm avoiding some necessary confrontation or saying yes to too many superfluous obligations, I feel it, and it kicks me into action. Weirdly, anxiety makes me live a more authentic life. And a more empathic one. It has made me feel vulnerable and more open to asking for help, thereby deepening my friendships.

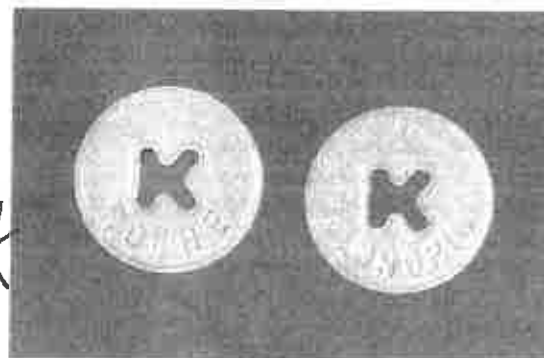
People who have a brush with death often talk of how it has given them a sense of what really matters. An omnipresent fear of disaster and a constant bracing for catastrophe can do that, too. Time takes on more urgency. The background hum of uneasiness in my mind has motivated me to work harder, to speak more honestly and, curiously, to take more risks than I might otherwise have.

Anxiety means that I'm simply not mellow enough to take things for granted. And that has made my life all the richer.



FROM TOP: COURTESY ANDREA PETERSEN; ALAMY

THE AUTHOR (second from left) with her parents and sister after her graduation from the University of Michigan in 1992. **RIGHT**, The number of American adults who filled prescriptions for drugs such as Klonopin jumped 67% between 1996 and 2013.



be diligent: Sleep eight hours. Do yoga. Take it easy on the wine. Pare down my responsibilities. And still I grapple with worry-induced insomnia. I tend to procrastinate, terrified of making the wrong choices. I have odd, unexplained physical symptoms—a tingling arm, chest pain. I can't drive on highways.

Scientists have found that many childhood events and experiences—from illness to trauma to overprotective and controlling styles of parenting—can contribute to the development of anxiety. It is also partly genetic. Having a first-degree relative—a parent, sibling or child—with an anxiety disorder bumps a person's risk of developing one by up to five times that of the general population.

When I got sick in college, I was terrified that I was following in the footsteps of my grandmother: She heard voices and, plagued by paranoia, once tried to burn down her own home with her husband and three children in it. After that, she spent three years in a mental institution. I have an aunt with bipolar disorder. My father struggles with depression. My mother is a worrier with frequent insomnia and an anxiety-fueled cleaning compulsion.

In college, I eventually recovered after a stint of cognitive behavioral therapy. CBT usually involves 12 to 15 weekly sessions with a therapist, plus daily homework. It is the most rigorously studied nondrug treatment for anxiety disorders, and about half of the patients who do it experience clinically significant improvement. **GO BACK TO 2ND PAGE**