

# The Power and Price of Survival



Understanding Resilience, Stress, and Trauma

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## Read Me First

This workbook is written for people who want to:

- Understand how the experience of heavy stress and/or trauma affects us
- Learn about the resilience that helps us stay in balance, bounce back after difficult experiences, and get back in balance if those experiences have caused problems
- Learn a few everyday skills we can use to bring our bodies, thoughts, feelings, etc. back in balance
- Find out more about the different kinds of help that are available if we need help

*The Power and Price of Survival* is **not** professional treatment for trauma, or a substitute for the trauma therapy that people sometimes need. The author is a writer and a trainer, not a therapist. But it can be a useful tool if you're not sure whether or not you need professional help—or if you need a little help before you can be ready to get more help.

And this workbook is definitely not a substitute for talking to caring and trustworthy people. *The Power and Price of Survival* can't look you in the eye, listen to your experiences, or love and admire you no matter what you've been through. As a matter of fact, the content and questions are focused on the present rather than the past—on your experience right now, the strengths that lie within you, and things you can do right now to get your stress system in balance and under control.

So if that might help you right now, please read on!



# Introduction

1. The Power and Price of Survival
2. Resilience

Tool: Examples of Resilience Traits and Skills

Tool: What the Body Needs



# 1. The Power and Price of Survival

Many people completely misunderstand the most common effects of stress, threat, and trauma—things like anxiety, depression, jumpiness, sleep problems, the many symptoms of posttraumatic stress disorder (PTSD), and urges to use alcohol or drugs to cope with these effects. They think these and other effects are signs of weakness, of cowardice, of being "crazy" or "bad" or having "emotional problems." Out of that misunderstanding comes a deep sense of shame and a tendency to punish or disapprove of people whose bodies are just doing what bodies were designed to do.

These injuries and effects can be difficult enough without adding all that shame and stigma. It's time that we, as individuals and as a society:

- Understood the physical reactions that give post-trauma injuries and effects their power
- Saw these effects accurately, as signs of strength, rather than weakness

This workbook is designed to make four things very clear:

1. We all have resilience—and ways of strengthening that resilience.
2. Post-trauma reactions really are signs of strength, rather than weakness.
3. The things that happen to memories after trauma are not signs of being "crazy" or "dwelling on the past." They make perfect sense, once we understand resilience, stress, and trauma.
4. There are many things we can do to bring the stress system back into balance.



## 2. Resilience

One common definition of resilience is the ability to meet challenges and bounce back after difficult experiences. If you're not sure how resilience is different from strengths, skills, or resources, don't worry. It's more important to have it than to know exactly what to call it.

Everybody has resilience. We all have strengths, skills, and resources in many areas of life—body, brain, thoughts, feelings, family, friends, values, beliefs, education, training, work, finances, sports, creativity, spirituality, even goofing off. These all add to our resilience, and the fact that we have resilience—that we're able to live through difficult things and learn from them—helps build our strengths, skills, and resources even more. Resilience feeds itself.

Some people have an easy time finding and believing in their resilience, and others have it harder. This can sometimes be traced back to people's experience, but often it can't. Two people can lead very similar lives, but one ends up feeling strong and confident and the other has a lot of self-doubt. Is it genetics? Is it free choice? Something somebody said to them when they were young and impressionable? Divine intervention? Who knows?

People who don't know their own resilience often have just as much of it as people who are aware of their resilience. They don't recognize the courage they show every day. In tough times, just getting out of bed, stepping through the door, and showing up for a difficult task can be a sign of great strength and courage.

When your stress system is out of balance, you have more challenges to manage and overcome—on many levels of life—and you might have less confidence in your resilience. The changes in your stress system have probably ramped up the brain chemicals that mess with your confidence and tamped down the chemicals that would otherwise add to your confidence.

We "grow" our resilience through balance—going back and forth between moderate stress and calm, action and rest, danger and safety. The body is also programmed to build resilience through our contact with other people who care about us and earn our trust. You'll read more about that in the next section, "Reactions to Stress and Threat."

## Tool: Examples of Resilience Traits and Skills

A complete resilience inventory would be as long as this workbook, but this page might get you started. You can check off your resilience traits and skills (strengths, skills, resources) in four of the many possible areas of life, add more, then describe your experience with these traits/skills. Then the next page has a blank grid, so you can add more areas of life.

Resilience traits and skills that you have	Where and how you got these traits and learned these skills	Things you've done, said, etc. that show you have these traits and skills
Body: <input type="checkbox"/> Physical strength <input type="checkbox"/> Flexibility <input type="checkbox"/> Physical stamina <input type="checkbox"/> Speed <input type="checkbox"/> Ability to relax <input type="checkbox"/> _____ <input type="checkbox"/> _____		
Intelligence: <input type="checkbox"/> Solving problems <input type="checkbox"/> Understanding things <input type="checkbox"/> Explaining things <input type="checkbox"/> Math and/or science <input type="checkbox"/> Writing or storytelling <input type="checkbox"/> Sense of humor <input type="checkbox"/> _____ <input type="checkbox"/> _____		
Other People: <input type="checkbox"/> Protecting others <input type="checkbox"/> Showing respect <input type="checkbox"/> Loyalty <input type="checkbox"/> Accepting people <input type="checkbox"/> Being a good listener <input type="checkbox"/> Kindness <input type="checkbox"/> _____ <input type="checkbox"/> _____		
Character and Values: <input type="checkbox"/> Generosity <input type="checkbox"/> Courage <input type="checkbox"/> Honesty and integrity <input type="checkbox"/> Responsibility <input type="checkbox"/> Loyalty <input type="checkbox"/> Faith and/or spirituality <input type="checkbox"/> _____ <input type="checkbox"/> _____		

You can fill this out like you did the page before, only you supply the areas of life and the resilience traits and skills.

Resilience traits and skills that you have	Where and how you got these traits and learned these skills	Things you've done, said, etc. that show you have these traits and skills
Area of life: _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____		
Area of life: _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____		
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There are many things we can do to build and strengthen our resilience, including:

- **Spending time with people we trust and care about**, people who understand, love, and respect us as we are
- **Wherever possible, scheduling things so we can go back and forth** between moderate stress and rest (instead of pushing ourselves to get everything done at once)
- **Doing physical things** like breathing deeply, eating healthy foods, getting enough sleep, gently stretching our muscles, or doing physical activity—particularly activity that involves moving from side to side, like walking or dancing
- **Avoiding having too much** caffeine, sugar, or alcohol; avoiding street drugs; and using prescriptions and over-the-counter medications as directed
- **Spending as much time as possible in the present**, noticing the people, things, sounds, smells, tastes, emotions, and physical sensations that are with us right here and right now, rather than focusing on the past or future
- **Becoming observers of our own experience**, even while we're living it—not necessarily trying to judge or change what we think or feel—just noticing it
- **Questioning our negative or self-destructive thoughts**, and considering that there might be another way of looking at things
- **Thinking about positive experiences** and things we appreciate or are grateful for
- **Understanding that we can often tolerate uncomfortable emotions**, and either do something about the situation or just let the emotions wear themselves out—we don't always have to try to make the emotions go away
- **Doing creative things** (like music, art, writing, acting, crafts) that we enjoy doing, or enjoying things that others have created
- **Participating in positive rituals**, anything from a pleasant morning routine to a spiritual discipline, a religious service, or a culture-specific ceremony
- **Directing time and attention toward our spiritual or religious** beliefs or practices

Resilience won't necessarily keep the body from reacting strongly to extreme stress and trauma, but it can help protect us and help our bodies react in ways that are less extreme. And practicing resilience skills won't "cure" post-trauma effects like PTSD, anxiety, or depression, but it can:

- Reduce the intensity of post-trauma effects
- Make it a lot easier and safer to do what it takes to get back in balance
- Make our lives and relationships a lot easier

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## Tool: What the Body Needs

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No matter which areas of life they affect, post-trauma responses get their intensity from your physical stress system. Here are a few things you can do to help get your stress system back in balance:

- **Breathing:** Most of the oxygen your brain needs for clear thinking and problem solving comes from the bottom of the lungs, but most people—especially if we’ve been through heavy stress—breathe very shallowly. It’s important to take slow, deep breaths, feel the air going in and out, and notice what’s going on in your body. And smoking definitely deprives you of oxygen, because it clogs up the “pipes” in your lungs. So if you smoke, quitting would be a good idea.

What could you do differently here? \_\_\_\_\_

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- **Sleep:** Sleep problems can come from depression, anxiety, or nightmares—things that you might need extra help (like a doctor or a counselor) to deal with. But they can also come from some of the things you put in your body. How much caffeine do you take in (coffee, cola, chocolate)? How much sugar (candy, cookies, soda/pop)? Alcohol? Street drugs? Over-the-counter drugs or prescription meds? Caffeine may be the biggest source of insomnia. It’s a powerful drug. Sleep problems can also come from habits like having eating right before bed; lively discussions right before bedtime; watching TV in bed; or using TV, X-Box, or your computer late at night.

What could you do differently here? \_\_\_\_\_

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- **Healthy food:** What you eat, how often you eat, and how much you eat can have powerful effects on the amount of fuel and oxygen that gets to your body and brain. Too much or too little food, too much sugar, too much alcohol or caffeine, use of street drugs, too little protein, or too long between meals can all set your stress system on edge and raise your levels of stress chemicals.

What could you do differently here? \_\_\_\_\_

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- **Exercise:** Almost any exercise—fast or slow—is excellent for the stress system. Fast exercises (like running, sports, fast dancing) give you strength and energy, burn the chemicals that make you anxious, release the calming chemicals, and increase your stamina. Slow exercises (like Tai Chi, yoga, stretches) calm you down and give you a physical sense of balance. Side-to-side exercises (like walking, dancing, horseback riding) help the different parts of your brain communicate better. Repetitive exercises soothe the deep, primitive parts of your brain. Exercises (like team sports) that make you think and work with others can help you balance your body, brain, and relationships.

What could you do differently here? \_\_\_\_\_

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- **Balancing stress and rest:** The way the stress system gets strong and resilient is by going back and forth between high-stress and low-stress situations. Wherever possible, it’s important to break up stressful activities with restful breaks. And long periods of rest aren’t as good as shorter rest periods mixed in with periods of activity.

What could you do differently here? \_\_\_\_\_

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## Reactions to Stress and Threat

3. Why These Reactions are Signs of Strength
4. The Role of the Survival Instinct
5. How the Stress System Works Toward Balance
6. Chemicals Under Stress and Threat  
Tool: The Human Chemistry Set
7. Adrenaline Overload  
Tool: The Virtual Tranquilizer
8. Two Memory Systems  
Tool: The Safe Container  
Tool: Remembering Success



### 3. Why These Reactions are Signs of Strength

Resilience skills are powerful, but what about the events that overwhelm them? What happens when stress and threat are suddenly intense (like a disaster), long lasting (like abuse in the family), or both (like combat or ongoing violence in the community)?

The brain and body chemistry are organized to go through some powerful changes under stress and threat, so we can stay alive, save others' lives, fight back, escape, or just endure. These chemical reactions are very primitive, because our bodies haven't changed much since we lived in caves and the only threats we had were physical and temporary—like animals coming into our caves to kill us or steal our food. All we really needed to do was to:

- Fight off the threat
- Run away
- Play dead so the predator would lose interest and go away
- Calm down when the threat has passed

So the chemicals that are most likely to get pumped out under stress and threat are the ones that would help us do those things.

These changes are automatic. We don't choose them. They're built to be far more powerful than our will, because the survival of the species depends on how well they work in all of us. We may be able to control our behavior in crisis situations, but our bodies are still going to do what bodies do under extreme stress.

Of course, all these changes come at a price. Often we pay this price later, when the threat is over—and sometimes long after it's over. It might be a mild price like a tendency to shut down or a temporary case of the jitters, or a high price like heavy anxiety, depression, or posttraumatic stress disorder (PTSD). This price can include the whole range of post-trauma reactions:

- From exhaustion through anxiety and insomnia
- From having no emotions through overwhelming anger, sadness, or fear
- From a sense of being empty and numb through an inability to sit still
- From amnesia through flashbacks and nightmares
- From cravings for stimulant drugs through cravings for substances that calm us down

These things are all driven by physical reactions in the brain and the rest of the body, and by the chemicals the body makes (more on this in Chapters 5, 6, and 7). These reactions often have thoughts and feelings attached to them, but that's because they have human beings attached to them, and human beings have thoughts and feelings—especially when we're trying to make sense of difficult situations.

But it's not the thoughts or the feelings that are causing the intensity of these reactions. It's the physical stuff—the way the brain and the body react—that's driving this intensity and making things more difficult.

And these physical reactions are just signs that we, as individuals and as a species, have bodies and brains that do extraordinary things to keep us alive and functioning under stress and threat. These reactions—as painful, dangerous, and exhausting as they can be—are signs of our incredible power as human beings.



## 4. The Role of the Survival Instinct

The major force behind post-trauma reactions is the same as the major force behind many of our most powerful experiences—the human instinct to survive and to preserve our species. The survival instinct is not just the thing that makes us jump out of the way when a car is coming at us. It's also the unconscious force behind things like:

- Sexual desire for an attractive potential mate
- The urge to protect children
- Acts of heroism and endurance
- The drive to make a living and get ahead in the world
- Generosity toward people who are less fortunate
- The desire to serve our community, our state, or our country
- The first responder's dedication to the well being of the community
- The service member's dedication to his or her country and comrades in arms

It's all about keeping us—all of us—going. Our species is wired to survive.

So the body's survival-level reactions don't just happen when we ourselves are threatened. This may be why things that happen to other people—even people we don't know or think we identify with—can have such powerful effects on us.

For example:

- Just seeing a stranger injured or killed can cause deeply rooted reactions in the stress system.
- If we witness the injury or death of a loved one, the stress reactions can be even more intense.
- The guilt and loss that can come from hurting or killing others can be among the most profound injuries that some police officers and service members sustain—even if their actions were justified and they had no other choice.

The survival instinct may extend far beyond the individual, to the relationships and loyalties that fill our lives. If that's true, then it makes sense that threats to those relationships and loyalties might also feel like threats to our own safety or wholeness.

The human being lives on many levels, from the most basic chemicals in the body to the indescribable and unquantifiable thing that is the human spirit—and all points in between. Everything that happens to us happens on all those levels at once. Who we are, and what we choose, may affect the direction of some of our post-trauma reactions—like whether we feel angry or afraid, whether we grieve or shut down, whether we blame others or ourselves.

But the force that drives the intensity of our reactions is physical, rooted in a body that was hard-wired to keep itself—and its species—alive.



## 5. How the Stress System Works Toward Balance

You can think of your nervous system as being divided into two parts:

- A “fast system” that pumps out chemicals that speed us up
- A “slow system” that pumps out chemicals that slow us down, calm us down, or ease our pain.

### **Fast-system chemicals include:**

- Adrenaline (energy, fear, anger, intensity, etc.)
- Dopamine (clear thinking, feeling good)

### **Slow-system chemicals include:**

- Cortisol (slowing down, shutting down, depression, hunger, restlessness)
- Endorphins (pain relief, feeling good)
- Serotonin (calm, cooperation, even moods, leadership, resisting impulses)
- GABA (calm, less fear, less anger)

There are others, but these are some of the most important ones.

Each of these systems has certain brain parts and other parts of the body that do its work, but you can think of the two systems as being “ruled” by two areas of the brain:

- The primitive “survival brain” runs the fast system
- The thinking “higher brain” sets the slow system in motion<sup>1</sup>

If the stress system’s first job is to keep us alive, its second job is to keep itself—and us—in balance. Much of its work is organized around balance, including:

- The fact that the stress system has two opposite arms (the fast system and the slow system) that can balance one another out, the way your arms would balance your body if you were walking along a narrow board
- The “feedback loops” that run between the survival brain and the higher brain so they can keep the fast system and slow system chemicals in balance (with high levels of one kind of chemical designed to trigger the release of the opposite chemical, which then tells brain to slow down the first chemical)
- The fact that several of the higher brain parts know how to “talk to” the survival brain, provide more information, and send out soothing chemicals, so it can calm down if there’s not really an emergency

Even the way we develop in early life is designed to help the stress system learn how to stay in balance. For example:

- When a parent and a baby make long, loving eye contact with one another, it “grows” the higher parts of the brain that helps us calm down and regulate the stress system.
- If the baby gets upset and the parent responds lovingly and kindly to his/her needs—and in ways that make sense—the baby comes to believe that his/her little world is safe and stress isn’t permanent.
- As the baby watches the way the parent reacts to stress, the baby learns how to handle stress. If the parent handles stress well, the baby starts to learn about resilience.

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<sup>1</sup> This is a “stripped-down” version of this information, because most people don’t want to hear about all the brain parts involved in these functions. But if you want more details, you can email the author at [pamelawoll06@gmail.com](mailto:pamelawoll06@gmail.com), and she’ll send you as much information as you want.

Think of the way you grow strong muscles—by stressing them, then resting them, over and over again. In the same way, our stress systems are designed to go back and forth between stress and calm, and between the fast system and the slow system. It's usually that back-and-forth motion that helps us grow strong and resilient stress systems, so we can handle stress and return to balance quickly. Many people who have strong resilience skills learned them as they were growing up, often by going back and forth between high-stress and low-stress experiences.

Of course, not all babies get that kind, consistent attention from caregivers, and not all children grow up in situations where they have the luxury of going back and forth between mild stress and calm. Many of us grow up in situations that fail to provide a lot of the conditions that help us grow healthy and resilient stress systems—even if parents truly love their children and try to do the best for them.

Children are particularly vulnerable, and there are many things they don't understand. For many children, it's not just the experience or danger of physical harm that can feel life threatening. Anything that seems to threaten their relationships with caregivers and other important people in their lives can be stressful or traumatic. And many other experiences in children's lives—anything from bullying in school to serious illness or surgery—can also bring on extreme stress and trauma. The more severe these experiences are, and the longer they last, the stronger their effects on the stress system.

Many children find resilience wherever they can, and practice the skills of resilience without even knowing that's what they're doing. Even so, many of us enter the adult years with stress systems that have been taught to overreact—make us "come out swinging," run away, shut down, or "freeze" under stress and threat.

The next chapter looks at how our natural chemicals work under stress and threat, and how they might affect us.



## 6. Chemicals Under Stress and Threat

When there's only mild or moderate stress or threat—and it doesn't last too long—the fast system and the slow system play well together. That's what our bodies were designed to do.

But if the threat is extreme or long lasting, the survival brain takes over and refuses to listen to anyone else. It blows through all the feedback loops that are supposed to keep things in balance. It just wants to protect you, and this is its best shot at it.

Here's a little more about some of the most important fast-system and slow-system chemicals and what they do.

### **Chemicals That Speed You Up**

If you've ever been in a crisis or a very tense situation, you already know what these fast-system chemicals are like—the racing heartbeat, the pounding of blood in your head, the increase in physical strength, the overwhelming urge to take physical action.

- The most important of these chemicals is adrenaline. Just enough of this chemical makes you alert and decisive.

- When your body pumps out too much adrenaline, you get what's sometimes called "adrenaline overload." The survival brain takes over, you lose touch with your higher, more rational brain, and you tend to make decisions that can backfire on you.
- If you've been under too much stress or threat for too long, your body can get too good at pumping out adrenaline, and it can start doing it too often, when there's no reason to do it. Or your body can just get tired of making adrenaline, and you can lose energy and excitement.
- Another speed-up chemical is dopamine. Dopamine makes you think quickly, feel confident, and feel very good—energized and confident.

These chemicals can also give you a "rush." You can get "addicted" to stress and danger, because you feel empty and flat without high levels of those chemicals. That can make you more vulnerable to cravings for risk, danger, caffeine, and other drugs that speed you up.

## **Chemicals That Slow You Down and/or Calm You Down**

Three of these slow-system chemicals are most important:

- Cortisol can slow down your stress system, but it can also make you anxious. Cortisol helps protect you during the first half hour of a crisis, but after that, having a lot of cortisol isn't good for your body or your brain—and it stays there a long time. Long-term stress can give you too much cortisol, so:
  - You have less energy, but you're not calm
  - You're more vulnerable to depression
  - Your immune system doesn't work as well as it ordinarily would
  - You might have cravings to eat too much, especially under stress
- Serotonin is another important slow-down chemical, helping you feel calm, think of solutions, cooperate with others, and resist counterproductive urges. Serotonin also helps protect you from difficult reactions to stress, threat, and trauma. Long-term stress can make it harder for your body to make or use serotonin, so:
  - You have more anger, fear, anxiety, and/or depression
  - You have a harder time getting along with other people
  - You're more vulnerable to eating too much, drinking too much alcohol, over-using prescriptions, or using street drugs

- GABA calms down your survival brain so you can think clearly and make good decisions. But if you're under heavy stress or threat, and the survival brain has taken over, your higher brain may not be sending out enough of this chemical. And when you don't have enough GABA, you might crave alcohol or drugs that calm you down.

## Chemicals That Ease the Pain

The most common of these slow-system chemicals are the endorphins, the body's natural pain relievers. These are the same chemicals that can kick in when you've been doing heavy physical exercise for a while (sometimes they call this "runner's high"). When you're in pain, your body sends endorphins to your brain. It makes you less aware of the pain and helps you feel detached or separate from the situation.

This makes it possible for you to keep going in spite of the pain, to fight or run away from danger. It also helps you feel good—euphoric—like everything's fine and the world is a wonderful place to be.

But if you spend a lot of time under stress and threat, your body can get used to having a lot of endorphins running around in it, and it can miss them in times of low stress. This can make you more vulnerable to cravings for drugs like heroin or opioid pain medications. If your experiences have also left you with injuries that cause you pain, these cravings can make the process of treating the pain much more complicated. You can start confusing your need for pain relief with your cravings for drugs that will replace those endorphins.

## Combinations of Fast- and Slow-System Chemicals

Sometimes—if you're under heavy threat and you're also helpless to fight back or escape—your body can pump out a lot of fast-system and slow-system chemicals at the same time. This can cause your brain to tell parts of your body to shut down and "freeze," making it hard to think, make decisions, even move or take any action. This is an ancient animal survival response, designed to help us fool predators into thinking we're dead, so they'll leave us alone. Some experts believe this can make some of the post-trauma symptoms worse later, including some physical symptoms.<sup>2</sup>

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<sup>2</sup> For more on the freeze response, you can read *Waking the Tiger: Healing Trauma*, by Peter Levine.

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## Tool: The Human Chemistry Set

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Check the chemical reactions your body tends to have under stress and threat.

### Some Fast System Chemicals

#### Adrenaline under stress and threat:

- I feel decisive
- I have a burst of energy
- I might feel angry or scared
- I make some unwise decisions
- Tightness in my chest or my throat
- My heart starts to beat faster
- My body gets stiff
- My hands close up in fists
- I lose my appetite
- I feel impatient
- It's hard to put things into words
- My head gets hot or my face turns red
- A vein sticks out on my forehead
- My head starts hurting
- I hear a pounding in my ears
- I get a prickly feeling on my skin

#### Dopamine under stress and threat:

- I feel excited
- I feel good
- I feel confident
- I feel energetic
- I feel inspired
- I don't feel hungry

### Some Slow-System Chemicals

#### Cortisol under stress and threat:

- I feel cold
- I feel numb (as in dead)
- I feel tired and don't want to move
- I feel tense and out of sorts
- I feel depressed
- I don't remember things as well
- I get sick more easily
- I feel really, really hungry
- I gain more weight, especially tummy fat
- I'm restless, and I have trouble sleeping

#### Serotonin under stress and threat:

- I feel calm
- I feel cooperative
- It's easy to think of solutions
- My moods are even and good
- I tend to take a leadership role
- It's easy to resist unwise impulses

#### GABA under stress and threat:

- I feel calm
- I feel like everything's going to be okay

#### How endorphins sometimes respond to stress and threat:

- I feel comfortably numb
- I feel unreal
- I feel like I'm leaving my body
- I feel relaxed
- I feel much less afraid
- Later on, I don't remember events well

### A combination of fast- and slow-system chemicals

- I tend to freeze under stress or threat



## 7. Adrenaline Overload

Adrenaline is a powerful “fight-or-flight” chemical, and everybody experiences “adrenaline overload” from time to time. Any situation where we feel threatened, insulted, guilty, etc. can signal the stress system to raise our levels of adrenaline. Adrenaline overload is one of the most common things that gets us into situations we’ll regret later. The next few pages borrow from the work of Andra Medea on adrenaline overload.

You can think of the brain as having higher, rational thought centers—and more primitive centers that run on instinct. Adrenaline overload blocks access to the higher brain and throws you down into the primitive brain. It hijacks your thought process.

When adrenaline has shut you out of the higher brain centers:

- Without those brain centers, you might not even know you’re on adrenaline overload.
- The things you say might not make a lot of sense to other people.
- You might misunderstand what others are saying, their body language, or their facial expressions—and even see them as insulting, threatening, or accusing.
- It might seem like you have no choice but to do something dangerous or illegal.
- You might make risky or expensive decisions, with consequences you don’t want.

That adrenaline rush may even feel good at first, but it’s easy for adrenaline overload to get painful—and to bring on painful consequences.

Of all the resilience skills you'll learn, bringing down your adrenaline levels may be one of the most important. Not only will it improve your decisions, but it can also help you learn to manage some of the other common post-trauma effects.

The first step is being able to notice when you're under adrenaline overload:

- **Watch for physical symptoms first:** Pounding head, racing heart, short breath, sweaty palms, dry mouth, heat rising in the body, tense muscles and jaw, etc. Make a list of your personal signs. Check the list when you're under stress. Checking the list is more important than yelling at someone.
- **Watch for mental symptoms:** Jumbled thoughts; circular thinking; or difficulty seeing options, remembering time sequence, or handling math. Also watch for a sudden loss of ability to speak clearly, and for a tendency to believe things without questioning them.

*From Conflict Unraveled: Fixing Problems at Work and in Families, by Andra Medea*

### **To Control Adrenaline Overload:**

- **Burn up the adrenaline by using your large muscles:** Many constructive activities can do this. Which of these things might you do if the situation allowed?
  - Go for a run or a fast walk—outside if you can, or inside if you can't go out.
  - Run up or down the stairs (unless stairs might trigger hard memories for you).
  - Open a window and push sideways on the frames.
  - Close the door and do large-muscle exercises (push-ups, jumping jacks, etc.).
  - Breathe slowly and deeply (the lungs are large muscles, too).
  - Do active housework, home repair, or yard work (cleaning the garage, putting on a new roof, hauling things, digging a garden, clearing brush, etc.).
  - If you're stuck in a meeting, use isometrics (exercises that push your large muscles against things that won't budge). If you're sitting at a heavy table you can't lift, put your hands under it and push up (without anyone noticing), as if you're trying to lift it. Or try to pick up the chair you're sitting on.
- **Reverse the symptoms:** If your breathing goes short, make yourself breathe deeply and slowly. If your fists are clenched, open your hands and stretch your fingers. If you're hunched over, sit back. If your shoulders are scrunched up, lower them.
- **Focus on specifics:** List the facts one by one, then read them back, to keep your mind focused. Slow the pace.
- **If you can't break free of adrenaline overload at the time:** Recognize that you can't think, and stop arguing. State clearly that you'd like to talk later, then leave and re-group. Try again after you've repeated the steps shown above.
- **Prepare in advance:** If you're going into a tough situation, practice taking yourself out of adrenaline overload. Practice first when you're just a little overloaded, and keep practicing until you can bring down high levels of adrenaline. You can develop a resistance to adrenaline overload, or train yourself to snap out of it.

**When all else fails, get it out of your system:** Find a private place and go smash something that nobody values—but not people or living things. For example, you might rip up a phone book, beat up your mattress, use a punching bag, or throw empty bottles and cans into a dumpster.



## 8. Two Memory Systems

Of the many things about stress and trauma they never taught us about in school, some of the most confusing have to do with the way memory behaves—and misbehaves—during and after experiences of extreme stress and threat.

Most people have very incomplete information about the role of memory in trauma and its aftermath:

- Many still think all the trouble we have after traumatic experiences comes from the fact that we remember or think too much about those experiences. They believe the best way to avoid trouble is to forget the past or stop thinking about it.
- Many people think things like nightmares, vivid memories, or flashbacks (intense memories that look, sound, or feel like we're right back there) mean we must be "crazy" or—again—that we're just thinking too much about the past.

What they don't know is that we have two separate memory systems—we all do—and that all these problems with memory are just the natural results of things our two memory systems sometimes do to keep us alive and functioning under threat.

We don't choose whether or not our memory systems will react that way to an immediate threat, and it's not tied to how strong or brave or smart we are. It's a reaction to the way all our natural chemicals sometimes work together under stress and threat. And that can be influenced by our genes, things that happened to us in the past, or both.

Just deciding not to remember or think about what happened won't make things better, because the memory system we use when we choose (or don't choose) to remember something isn't the one that sometimes causes problems later. Our two separate systems deal with:

- **Conscious, "narrative" memory**—like what we did yesterday, where we grew up, what we learned in school, where we are in the novel we're reading, faces we're familiar with, how to do our work, how to get home, etc.
- **Unconscious, "emotional" memory linked to survival**—vivid sights, sounds, smells, emotions, and physical sensations linked to positive (happy, pleasing) situations or negative situations like the experience of loss, pain, or danger

The conscious memory system keeps its memories pretty much out in the open. We can usually find them when we choose to, and ignore them if we like.

But the unconscious memory system—run by the survival brain—keeps its memories tucked away until our brain systems tell it we need them for survival purposes (to pull us toward things that will bring us pleasure, or warn us about things that will cause us pain). Then it pulls them out and puts them right in front of us where we can't ignore them—as:

- Images, sounds, or smells "in our heads"
- Strong emotions
- Sensations in our bodies.

Two common examples from ordinary life:

- **You went to a movie yesterday** that really affected you in a positive way. Today you're just going about your life, and something reminds you of someone or something in the movie. Right away, a powerful image from the movie comes up in your mind, and for a few seconds you feel the same pleasure you felt watching it yesterday
- **Last week you were in a minor accident** with someone else driving. Now you're a passenger again, and even though it's not the same person driving, your body gets tense every time the traffic gets dicey or the driver gets too close to another car, and you feel anxious or annoyed with the driver.

That unconscious, emotional survival brain is kind of like the nearsighted guy who isn't wearing his glasses and says "good morning" to a parking meter. The survival brain gets things wrong a lot. Anything that even vaguely reminds this system of its memories of pain and danger can seem like a threat and trigger strong survival reactions. And it can do all this without even paying any attention to the conscious, narrative memory system that understands what's really going on.

But why do we sometimes forget times of extreme pain and danger? Take, for example, the many:

- Women who forget the pain of childbirth
- Adults who don't remember bad things that happened to them as kids
- Veterans who can't remember firefights or explosions they were in

That's because of the way our different brain chemicals work together under stress and threat. In some cases, our brains may "record" intense unconscious memories of sights, sounds, smells, and feelings, but have trouble recording the conscious memories that would help us piece together what happened. In both cases, this is the body's best guess at what will protect us and help us survive.

So in the old movies, when Dr. Freud says, "You don't remember it, because you're blocking it out!" he's wrong. You're not blocking anything out. Your brain just decided not to record it in conscious memory, because it wanted to protect you.

The good news is that there are many:

- Ways of containing and managing memories and the "triggers" that set them off
- Treatment approaches, therapies, and courses of skill-training that can help the conscious and unconscious memory systems pool their information and work together for our well being.

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## Tool: The Safe Container

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*Adapted from an exercise in a presentation by Lisa Ferentz, LCSW-C, DAPA*

If you have a strong imagination, this tool might be for you. As a few of the pages and tools in this workbook have mentioned, your stress system grows stronger and more resilient when you go back and forth, in and out of mild or moderate stress. If you remember things that are upsetting, it's good to practice resilience skills that can help you bring yourself away from the memory and back into the present. You'll always want to do this before the stress gets so intense that it triggers flashbacks or adrenaline overload. And it's always a good idea to put intense memories off until you're with someone who can help you deal with them. This tool can help you do that.

**So what does the "Safe Container" do?** Once you let an emotionally charged memory "out of the bag," you don't want it bouncing around in your head and body, distracting you and putting you off balance. You may want to visit that memory again—in counseling, with a trusted friend, or whenever you feel strong and ready—but you don't want it to mess you up in the meantime.

So when you're done looking at a memory for a while, you might try this:

1. Use your imagination to "build" a container strong enough to hold the memory. You can make it any size and shape you like, of any material you like. You'll want to equip it with some sort of secure lock, so you can lock the memory in it and the memory can't get out.  
What would your container be made of? \_\_\_\_\_  
What would it look like? \_\_\_\_\_  
What would you use to seal and lock it? \_\_\_\_\_
2. If you've been talking to a counselor or trusted friend about the memory, you can talk to him/her about the container. Describe it, how big it is, what it's made of, how it locks.
3. Open the container, put the memory in, and lock it up. Imagine what the lock looks and sounds like, and notice what happens in your body when you lock it. Make sure the lock is secure. Ask your stress system if the memory is securely locked away, and notice the sensations in your body to see if it feels secure. If you need to, add more seals or locks.
4. Put the container somewhere where the memory can't get out. If the memory is particularly intense, you might want to bury the container underground. At each step along the way, check your body sensations to see if it's locked away securely enough.

Next time you're ready to work on the memory, you can dig it up, unlock it, get it out, and work on it. Only you can decide when it's time to let the memory out again. As long as the memory is still emotionally charged, you can keep it locked up. When the day comes when it's safe to have the memory around, you can stop locking it up.

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## Tool: Remembering Success

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*Inspired by a suggestion from Desert Storm Veteran Steve Robinson*

This skill isn't just about the way the world defines "success"—achievements that others might think are important. This is also about remembering things like:

- **Peak experiences:** These may be times when you've felt happy, free, triumphant, successful, inspired, creative, "in the zone"—any or all of those things. These experiences are important, because they help you explore and believe in the best in you.
- **Times when you've overcome adversity:** These experiences show how strong you are, show you how to handle stress, and remind you that you can successfully handle stress. They can increase your sense of hope and confidence.
- **Times when your mind has been opened:** Sometimes your greatest triumphs might include conquering the way you've always thought about someone or something. When you end up liking, admiring, or respecting a person, an idea, or an experience that you judged negatively in the past, your world gets a little bigger, with more possibilities.

Make a list of 10 experiences like that below, then picture each one and hold it in your mind:

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_
3. \_\_\_\_\_  
\_\_\_\_\_
4. \_\_\_\_\_  
\_\_\_\_\_
5. \_\_\_\_\_  
\_\_\_\_\_
6. \_\_\_\_\_  
\_\_\_\_\_
7. \_\_\_\_\_  
\_\_\_\_\_
8. \_\_\_\_\_  
\_\_\_\_\_
9. \_\_\_\_\_  
\_\_\_\_\_
10. \_\_\_\_\_  
\_\_\_\_\_



## Getting Back in Balance

9. Managing Triggers
  - Tool: Triggers vs. Resilience Skills
10. Dealing With Thoughts and Feelings
11. Mindfulness
  - Tool: Grounding
  - Tool: Keeping an Open Mind
12. Meaning, Mission, and Purpose
  - Tool: Appreciation
13. Outside Help and Skill Training
14. Getting Help for Memories
15. A Few Tips on Medications
  - Tool: Questions for Doctors, Therapists, or Referral Sources
16. Even Your Brain is Resilient!



## 9. Managing Triggers

If you thought of your stress system as a grill full of charcoal soaked in lighter fluid, your triggers would be the matches that can set it on fire. Triggers might include:

- **Sights, sounds, smells, activities, feelings, or body sensations** that remind your brain of unconscious, survival-based memories, triggering intense memories or flashbacks. If you've spent much time around gunfire, fireworks might be a trigger. If you've been sexually abused or raped, triggers might include anything from a hand on your arm to the kinds of things they sometimes do in medical exams. If you've been physically abused, pain itself can be a trigger. If you've been deployed to Iraq or Afghanistan, trash or other objects on or near the road might remind you of improvised explosive devices and trigger survival reactions. Just the act of driving can be a trigger, given all the dangers on the road in those war zones.
- **Anything that would ordinarily bother you or stress you out:** This could be anything from an argument with your spouse to some stranger saying something that sounds insulting. Our stress systems normally react to things we're not comfortable with. But when the stress system is out of balance, it can react to little things with great intensity.
- **Closeness or intimacy with other people:** No matter how strong or independent you are, being close to other people raises feelings—positive ones and negative ones. For anyone who has been through extreme stress and threat, any kind of feeling can trigger stress reactions. The people you love most can be your greatest triggers for pain, anger, anxiety, and guilt, and it can sometimes feel like they're causing it—and even feel like they're doing it on purpose. If you've been hurt or abused in relationships—in your family, workplace, friendships—people may be particularly strong triggers for you, especially in the kinds of relationships where the pain or danger took place.

Sometimes, the more unexpected your triggers and their reactions are, the harder they hit you. And if you haven't consciously identified something as a trigger—and owned your stress reactions, rather than blaming others—a trigger can stay “unexpected” for a long time.

You might avoid many of the challenges that people often experience—trouble at home, at work, at school, with friends, with alcohol or drugs, with finances, with the law—if you:

1. **Become aware of your triggers:** You can start this by carrying a pocket notebook around and writing down everything that triggers a stress reaction. You can choose whether and when you want to learn more about a trigger—where it came from, why it's so intense, etc. That might even be part of a counseling process later, when you're ready to look at the past. You don't have to understand a trigger in order to manage it, but it's a lot easier if you're at least aware of it.
2. **Make a list of triggers:** Read the list often enough that the triggers are no longer surprising. Carry the list with you, so that when your stress system “goes off” you can look at your list and see what might have triggered it.
3. **Keep things separate:** The trigger is not the problem. The person, the place, the situation is not the problem—not the cause of your stress reactions. The fact that your stress system is out of balance is the problem, but there are many solutions for that.
4. **Make a plan:** On your trigger list you can also name the resilience skills you'll use to deal with your stress reactions. You can even write out the steps you'll take. Then use the list!

On the next page is a tool called “Triggers vs. Resilience Skills.” You can use this to organize your thoughts on triggers, and look at some of the resilience skills and other resources you can use to manage your triggers.

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## Tool: Triggers vs. Resilience Skills

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*Adapted from the work of Marsha Linehan, PhD, University of Washington*

Here's a tool that might help you think about and make a plan for dealing with some of your triggers.

Trigger	How you feel around this trigger	Your usual reaction	Some consequences of reacting this way	Resilience skills that might help	A more helpful reaction



## 10. Dealing With Thoughts and Feelings

Several resilience skills (some described in Tools on the next few pages) involve using your mind to manage thoughts/feelings and bring your stress system back in balance. You can:

- **Be in the “here-and-now”:** This skill can be challenging at first, especially if intense experiences have played tricks with your memory. One way is to notice things in the present—your breathing, sensations in your body, people and things around you, etc.

How could this skill be useful to you? \_\_\_\_\_

- **Become an “observer” of your own experience:** Most people are so lost in our own experience—our thoughts, feelings, body sensations, and opinions—that we almost think we are those thoughts, feelings, sensations, and opinions. It’s important to practice becoming an observer of your own minute-to-minute experience. Don’t try to avoid having the experience, but while you’re having it, also watch it and notice things about it.

How could this skill be useful to you? \_\_\_\_\_

- **Question things:** The more often we think a thought, the more it gets “burned” into the brain. Many people get used to thinking negative thoughts over and over, and it gets harder and harder to keep these thoughts from triggering stress chemicals. Some of the most upsetting thoughts we have aren’t true, or haven’t happened. Or we keep thinking about what we think is wrong with us, with situations, with other people, with the world, etc. One way to keep your thoughts from running you over is to question them: “How do I know this is true?” “Is this something I really believe in the present, or is was it just true in the past?”

How could this skill be useful to you? \_\_\_\_\_

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- **Practice getting excited about calm things:** If we’ve had experiences of high stress or danger, we sometimes feel flat and dull and half alive when things are calm and quiet. Our body chemistry has just learned to operate at a higher level of intensity, and we’re not comfortable at lower levels. We feel bored, and underneath that, we feel scared of the calm. This can lead to a tendency to stir things up and get into high-risk situations that end up being emotionally stressful and upsetting. It can knock us off balance and cause problems in our lives. Instead, you can practice looking for the excitement in calm and quiet things. What about this situation is interesting? Challenging? Creative? Satisfying? Funny? Pleasant? At first, these quiet forms of satisfaction may seem tiny compared to the old kind of excitement, but that’s an illusion. As the noise in your head gets quieter over time, you can come to know, appreciate, and really value this calm, quiet excitement. You can find things in it that are—well—exciting.

How could this skill be useful to you? \_\_\_\_\_

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- **Picture a calm, peaceful place:** You can use your imagination to “create” an image of a place in your head where you feel strong, calm, and peaceful. It might be a place you’ve been in the past, or one you’d like to find. Explore what that place looks like, sounds like, feels like, smells like, etc. Draw a picture or find a photograph. Keep it handy in your head, so you can “visit” and use it to calm down your stress system whenever the chemicals rise and your stress reactions start to get out of control.

How could this skill be useful to you? \_\_\_\_\_

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# 11. Mindfulness

The idea of Mindfulness has been around more than 2,500 years, originally as a Buddhist meditation practice. But lately many Western teachers, doctors, counselors, and people of all occupations have also been using it, to calm down and learn to think more effectively. It's a good skill to combine with the other skills described in this workbook. It's also very good for the effects of stress and trauma, including anxiety, depression, and a tendency to leave the present and get lost in the past.

You definitely don't have to be a Buddhist or "into meditation" to practice being mindful. You don't have to sit still, cross your legs, or breathe a certain way—though it helps if you breathe slowly and deeply, but you don't have to. And you can be mindful anywhere:

- At work or school
- Driving
- Walking
- Waiting for appointments
- Watching TV
- With friends or family
- Wherever

You can practice being mindful no matter what else you're doing. Nobody will even know you're doing it.

Being mindful is about getting a little relief from that constant “mind chatter” —that jumble of thoughts, feelings, and memories that most people have bouncing around in our heads. It’s not about controlling the mind chatter or shutting it down, but just getting a little distance from it.

People who practice mindfulness understand that you can't make the mind chatter go away. But what you can do is focus your attention on what's happening right now— where you are, what's happening around you, how your body feels, etc. That way, instead of focusing on the mind chatter, you can just be aware of it—watch it as it goes by. And you can practice watching it without judging yourself or others.

Mindfulness is a good technique for becoming an observer of your own experience. Thoughts may be happening inside your head, but your thoughts are not who you are. And because you're not so caught up in your thoughts, your feelings don't get so intense either.

You might think of your thoughts as clouds floating over your head, or cars rolling past you on the highway. You notice them, but they don’t move you around or make you lose your balance. You're still in the same place, watching them. Your thoughts, feelings, and memories are like those clouds or cars. They’re moving past you, but you’re still grounded in the here-and-now.

You can also train yourself to remember to be more mindful in everyday life. You can decide that certain things are going to remind you to do it—like red lights in traffic, sidewalks, fences, certain people, etc.

After a while, your mind really can get quieter. You can get calmer and start thinking more clearly. Mindfulness actually helps “grow” and strengthen the higher parts of your brain that help balance and strengthen your stress system.<sup>3</sup>

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<sup>3</sup> There are many good books, CDs, and videos on Mindfulness. One well known and respected author and expert on this is Jon Kabat-Zinn.

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## Tool: Grounding

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*Adapted from a workshop by Dr. Laurie Leitch and Elaine Miller-Karas, LCSW, Trauma Resource Institute*

“Grounding” is one way of getting away from out-of-control thoughts, feelings, memories, etc. and returning to the “here and now.” It’s a good skill to learn, practice, and get used to doing. Practicing this skill can give you more control over your stress system. You can also use it to get back in balance when thoughts, feelings, or memories start crashing in on you. You can practice grounding when you’re alone and doing nothing else, then use the same skills and techniques when you’re in hard situations—or even in ordinary situations. No one will notice, except you might get more quiet and calm. Here are some possible steps:

1. **Get comfortable in your chair**, with both feet on the floor. (If you’re standing, you can stand with your back to a wall, a strong tree, etc.) You can close your eyes if you’re alone or with people you trust who are grounding too, or you can keep your eyes open and rest them someplace neutral.
2. **Notice the support** that the back of the chair (or the wall) is giving you—on your back, on your seat. Keep feeling that support, and notice any physical sensations it gives you.
3. **Notice your feet, connecting with the ground.** Notice any sensations that gives you.
4. **Push a little bit with your feet against the ground**, and notice what happens in your body when you feel that extra contact. Now relax your legs (if you’re sitting). If pushing against the ground made you feel more comfortable, remember that, so you can use it in the future when you feel uncomfortable.
5. **Check in with your breath**, without changing the way you’re breathing or making an effort to breathe a certain way. Just notice your breath, and follow it as it goes in and out. See if you notice anything about your breathing. When you pay attention to it, does it get deeper or more shallow? Notice any physical sensations as you breathe.
6. **If you notice any places in your body that may be feeling tense**, just shift your attention to someplace else in your body that’s feeling less tense, or even someplace that’s feeling calm and relaxed.
7. **Just connect with that place for a while, feeling that calm place in your body.** Make a mental note of that place, so you can go back there at times when your stress system starts to overreact. If that place in your body still feels calm when your stress reactions start to rise, that might be a good place to remember and focus your attention on.
8. **Let your attention drift like a very slow wave**, down from the top of your head, all the way down, past your back, sensing into the support of your chair (or the wall, tree, etc.), all the way down to your feet connected to the ground.
9. **When you’re ready, if you closed your eyes, open them** and bring your attention back to the room or the scene around you. Notice the people around you (if there are any), the furniture, the walls, the trees, the ground, etc. You might ask yourself to name ten objects that you can see around you. What do you notice in your body when you notice what’s around you? Do you feel more or less comfortable?
10. **Practice this whenever you can**, so you’ll remember to do it when things get intense.

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## Tool: Keeping an Open Mind

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Sometimes our stress levels climb because of the way we interpret events and circumstances—our judgments about what they mean. It can be helpful to practice simply not judging people, places, things, events, or outcomes—not even thinking about whether they're better than, worse than, etc. As they say, "It is what it is."

If your stress level climbs when you think about something (situation, circumstance, or event) or someone, you might try answering these questions about it.

Do I really know what it is (the situation I fear or don't like)—or if it is?

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How do I feel about it?

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What judgments am I making about it?

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Do I really know if it's good or bad (for me or in general)?

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What do I appreciate about it—whether or not I like it?

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What do I understand about it, beyond my judgment of it?

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## 12. Meaning, Mission, and Purpose

Of course, you're much more than just a stress system. This workbook focuses on getting your stress system back in balance, because the chemicals from that system can fuel intense and painful reactions on all other levels of life. But some of those higher levels—like your sense of meaning, mission, and purpose—can be very important in helping you balance your stress system.

It's important to know that, with all the ways your stressful experiences have changed you, there are many changes that have made you a better person—stronger, wiser, deeper, with more creativity and more potential to fulfill your purpose. Of course, if you can't sleep and you're ambushed by flashbacks, fears, rages, or unexplained pain, this may seem beside the point. We have to learn to walk before we can learn to fly.

But please put a bookmark here: There's something important in you. It's worth all the work, all the skill building, all the re-balancing. Your life has purpose, and your experiences—even the most painful ones—might very well add to your ability to fulfill your purpose. You might or might not know what that purpose is right now, but it will wait until you're ready.

If things “happen for a reason,” it probably isn't a direct cause-and-effect kind of thing. It isn't like, “Oh, little Johnny was born to be a heart surgeon, so God gave granny a heart attack to inspire him.” Things happen, and the reasons for them grow out from there. Events have meaning because we're meaning makers by nature. And events have mission and purpose because human beings need—and have—mission and purpose.

Whoever you are, whatever your age or experience, there are probably higher or deeper kinds of connection that are important to you.

- You may have been raised in a religious faith that follows you still
- You may have a strong sense of connection to nature or to humanity as a whole
- You may practice a spiritual discipline that adds depth and dimension to your life
- You may have values or principles or people you live for—and may even have proved yourself willing to die for
- Your love and loyalty to a cause, a community, a culture, or your country may be a powerful force in your life

If any of these are true, you may already be calling on these resources to help you get your stress system back in balance. It's important to recognize this, see its value, and—if you can—connect with others who share your commitment. What are some of the higher kinds of connection that are important to you?

- Religious faith \_\_\_\_\_
- Connection to nature \_\_\_\_\_
- Connection to humankind \_\_\_\_\_
- Spiritual discipline \_\_\_\_\_
- Values \_\_\_\_\_
- Principles \_\_\_\_\_
- Sense of purpose \_\_\_\_\_
- People \_\_\_\_\_
- Connection to your community \_\_\_\_\_
- Connection to your culture \_\_\_\_\_
- Love of country \_\_\_\_\_
- What else? \_\_\_\_\_

Does the idea that you might have a higher mission, purpose, or calling sound:

- Comforting?
- Disturbing?
- Both?

Why? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The “Appreciation” tool on the next page might help you identify some of the things in your life that you value, calm your stress system, and clarify your sense of mission and purpose.

## Positive Ritual

Rituals are important, too. Never underestimate the power of positive ritual to balance the stress system. It “grows” the parts of the brain that help you handle stress, it calms your body, and it focuses spiritual attention and energy. Whether it’s a religious service, a prayer or mantra that you repeat over and over, a morning routine, a martial art, a meditative practice, or a group of trusted friends sitting around and talking, the right ritual can take your re-balancing process to the next level.

1. Can you think of any positive rituals in your life that might be helping you balance your stress system and move toward fulfilling your sense of purpose? Please describe them.

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2. What other positive rituals are available that you might consider trying?

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3. If you designed your own “re-balancing” ritual, what would it be like?

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## Tool: Appreciation

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Appreciation is a powerful tool for balancing the stress system. You might think of it as appreciation, or as gratitude (gratitude is basically appreciation combined with the feeling that the person or thing you appreciate is also a gift to you). Appreciation and gratitude:

- Activate and strengthen the higher brain areas that help regulate the stress system
- Give your survival brain something positive to chew on, to distract it from its preoccupation with pain and danger (the survival brain is actually involved in all kinds of emotions, pleasant and unpleasant)
- Give you hope—not false hope, but a general feeling of hope (appreciation and gratitude are to the past and present what hope is to the future, so they make it easier to hope)
- Give you a clearer sense of mission and purpose, by showing you what you value

This is a skill you might want to practice regularly (maybe first thing in the morning), and/or pull out when things are bothering you. Times when things are bothering you are often times when you really don't feel like looking for things you appreciate. But they're also times when this kind of exercise can be most effective at calming anxiety, lifting your mood, and giving you perspective. You just write down as many people/things as you can think of that you appreciate. If you're having a hard time thinking of things, you can start with any or all of these categories:

Comfort (physical, emotional): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Strength: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Security: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Belonging: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Pleasure: \_\_\_\_\_

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Interest: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Fun: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Humor: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Calm: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Excitement: \_\_\_\_\_

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\_\_\_\_\_

Joy: \_\_\_\_\_

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\_\_\_\_\_

Beauty: \_\_\_\_\_

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Love: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

People: \_\_\_\_\_

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What else? \_\_\_\_\_

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## 13. Outside Help and Skill Training

If you're unable to sleep because of nightmares, or jumping out of your skin in everyday situations, the idea that your symptoms are signs of strength may not be much consolation. You want some relief. But if your post-trauma reactions are causing challenges for you or others around you, chances are those challenges won't just solve themselves.

Many people who are having trouble with post-trauma effects are reluctant to open up about subjects they might feel a lot of shame about, or dig deep into memories that are full of pain, anger, and fear. Others may shy away from any kind of help that's going to take a long time or require that they talk about feelings or personal things.

But maybe realizing that these are normal and natural reactions will make it easier to consider the possibility of telling someone what's going on with you and getting some help—whatever that means, and however long it takes.

You might think of the help that's available as falling into two basic types:

1. Help in managing triggers and stress reactions and
2. Help in changing the way your brain and body process and react to difficult memories.

The first type of help—in managing your triggers and reactions—can come in the form of skill training, therapy, or certain types of medications. If the thought of letting other people help you is overwhelming, you can start in small, manageable ways. For example:

- In **groups or mentoring relationships**, people who have dealt successfully with their own reactions to traumatic stress can tell you what has helped them, give you pointers, and coach you in using these resilience skills.
- The trauma research supports many kinds of **skill-based therapies** that train you in the resilience skills you'll need to balance and regulate your stress system and operate in more effective ways. These skills work, and many can be taught on shorter, time-limited schedules.
- There are also **“somatosensory” approaches** that work on building your awareness of body sensations and using that awareness to teach you to balance your stress system. Some of these approaches have helped many people, though they haven't yet been researched fully.
- Many people find help from practitioners of **alternative therapies** such as acupuncture, acupressure, and massage therapy. Any physical technique that helps you learn to balance and manage your stress system can be helpful.

At some point—early or later in the process—you may also decide it's time to do something about the way the two memory systems (described on Pages 25-27) have affected your life, your memories, and your stress reactions. The next chapter has a little information on the kinds of therapies that address that challenge.



## 14. Getting Help for Memories

You can learn to manage and cope with your triggers, stress reactions, and troubling memories, but that won't heal or "neutralize" them. The fact that the body has two separate memory systems can cause a lot of complications after experiences of extreme stress and threat.

If you have stored experiences that are triggering memories that jump out at you, flashbacks, nightmares, or night terrors, there will come a time when it's important to deal with the way your brain and body process these memories. The good news is that there are effective ways of changing the brain's and body's relationship to memories, and these approaches are well supported by the research.

The part of this news you might not like is that these kinds of therapies often involve bringing up memories and feelings you'd rather not deal with.

Here are a couple of approaches that are supported by the research on trauma:

- The research supports a process called **Eye Movement Desensitization and Reprocessing (EMDR)**, which uses both thoughts and some physical (side-to-side) techniques to lower the intensity of your reactions to memories and present-day experiences. Often this approach involves bringing up and "neutralizing" difficult memories, but sometimes it can still be effective just working with images or body sensations. Of the people EMDR works for, many report that it brought them relief in a relatively short time.

- Research also supports the use of **exposure therapies**, in which a therapist walks you through difficult memories while helping you regulate your stress system. Examples of these approaches include many cognitive-behavioral therapies, gradual exposure, and prolonged exposure therapy. Some of these approaches include homework between therapy sessions, in which you write about your memories or listen to recordings of your voice describing the memories.

Some of the newer **"somatosensory" approaches** also work with memories, focusing on the sensations you're having in your body right now—and working on calming down and connecting with the present—while you're connecting with memories from the past. These approaches haven't yet been researched enough to prove how effective they can be, but many trauma experts find them very promising. Because trauma lives in the body, and memory has such deep connections with the body and body sensations, it makes sense that effective healing would include teaching the body to calm down—and letting the body teach you what it needs.

All these kinds of approaches fit in with what we know about the stress system: Resilience grows stronger when we go back and forth between high and low stress, and when we experience mild threat in an atmosphere of safety. Done safely by therapists who are well trained, experienced, and careful, these approaches can help you cut the ties between your memories and your stress reactions.

**The most important part of all these approaches** is the part about learning to manage your stress system and bring down your stress responses before the memories get too intense. It wouldn't be helpful to pay someone just to get you upset. Most of us can do that all by ourselves. So it takes a commitment by the therapist to teach you these stress-management skills, monitor your stress levels, and coach you in using your skills to keep your stress at a manageable level. It also takes a commitment by you, to learn these skills and take responsibility for monitoring and managing your own stress levels.

But when you're thinking about trying an approach that works with stressful memories, remember that these approaches can be a little like a roller coaster ride—at best, a controlled roller coaster ride. Before you start, you'll want to think about the answers to these questions:

- Am I ready to deal with these memories?
- How are my skills at bringing my stress system down?
- What's likely to happen in my life if I don't deal with the memories?
- What do I know about the therapist's training and skills in this approach?
- Am I willing to work on my resilience skills, and use them to bring my stress system down during the therapy sessions?



## 15. A Few Tips on Medications

Many people with post-trauma injuries and effects receive short- or long-term prescriptions for medications. The right medication can help you stabilize your stress chemicals more quickly—though **medication is not a substitute for practicing resilience skills, learning to manage your stress system, and dealing with your memories.** Here are short notes on just a few of the many kinds of medications prescribed:

- The most common and best-researched medicines for traumatic stress reactions are the **antidepressants** that make the chemical serotonin more available (like Prozac, Zoloft, and other drugs that work on serotonin). You don't have to be depressed for these to help you.
- There are **alpha blockers and beta blockers** (heart medications) that can help block the effects of the "fight or flight" chemical adrenaline on the body, without many side effects.
- If other medications aren't working, some doctors may add drugs like **anticonvulsants or "atypical antipsychotics"** to increase their effects. You don't have to have a seizure disorder or a psychosis for these to help, but some of these drugs have difficult side effects.
- To bring down extreme post-trauma stress reactions quickly, a doctor might prescribe the temporary use of a sedative in the **benzodiazepine** family. Benzos are addictive, so if you have problems with alcohol or drugs, they're not a good idea. And **these drugs make some of your stress reactions worse**, especially if you use them regularly or for a long time. So if your doctor insists on keeping you on benzos, it's time for a second opinion.

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## Tool: Questions for Doctors, Therapists, or Referral Sources

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When you look for help for the effects of heavy stress or trauma, it's important to be a well informed consumer of the services that are available. You may not always know what questions to ask your service providers or referral sources, so here are a few important questions about some of these services:

### General questions:

- What kinds of help or services are available for me here?
  - Skill training
  - Medication
  - EMDR (Eye Movement, Desensitization, and Reprocessing)
  - Exposure therapy
  - Other: \_\_\_\_\_
- What kinds of help or services would you recommend for me? \_\_\_\_\_
- Why do you recommend this for me? \_\_\_\_\_

### If the provider prescribes medication:

- What's the name of the medication? \_\_\_\_\_
- What kind of medication is it? \_\_\_\_\_
- How can it help me? \_\_\_\_\_
- What are the most likely side effects? \_\_\_\_\_
- Are there any danger signs I should look out for? \_\_\_\_\_
- Why is this the best medication for me? \_\_\_\_\_

### If the provider recommends exposure therapy:

- What kinds of training and coaching will I receive—before the exposure starts—in ways of bringing down my stress reactions? \_\_\_\_\_
- Will the exposure to stressful memories be gradual enough to give me a chance to regulate my stress system?  Yes  No
- Will the therapist:
  - Take me into and out of stressful thoughts and memories, or
  - Ask me to stay with a memory until it becomes very uncomfortable?
- What kind of signal can we set up so that I can let the therapist know if I feel like shutting down, or if I start to move toward flashbacks or adrenaline overload?  
\_\_\_\_\_
- If I give that signal, how will the therapist work with me to lower my stress level so I won't shut down or go into flashbacks or adrenaline overload?  
\_\_\_\_\_



## 16. Even Your Brain is Resilient!

With all this focus on the way stress works in the body and the brain, you might be tempted to wonder if the stress and trauma in your life have left you or your brain “damaged.” Absolutely not.

The good news is that the brain is programmed to keep us alive and functioning. The even better news is that the brain is also programmed to keep itself alive and functioning.

It’s true that experiences of stress, threat, and trauma can change the way the brain makes and uses certain chemicals, and the way some of the brain parts react and talk to one another. And if we ignore these changes and keep on doing things the way we’ve been doing them, our challenges can get worse over time instead of better, and harder to deal with as time passes.

But if we take steps to build our resilience, those steps can also repair much of the trouble our experiences have “written” on the brain. Three of the brain’s many magic tricks are particularly powerful:

- **“Neurogenesis”** is the brain’s ability to repair some neurons (brain cells) that have been damaged, and in some cases actually make new neurons.
- **“Neuroplasticity”** is the brain’s ability to “rewire” and find new ways to do things when the old ways have been blocked by damage, or when repeated bad experiences have worn negative thought and feeling patterns in the brain like grooves on an old record album.

- **“Learning”** sounds a lot less glamorous than those other two, but it’s a huge strength. Just as post-trauma effects are written in the brain through a learning process, so are hope and joy and resilience.

There are dramatic examples of all these, like the fact that some antidepressants make the brain replace cells that have been lost, or the cases in which people who have lost their brains’ hearing centers have learned to “hear” through their visual centers. But there are many more lives in which slow, steady, quiet effort has simply improved and even healed the way people’s bodies and brains work and respond to stress. Here are a few of the many things that help the brain find and use its natural resilience:

- Getting enough sleep, exercise, the right kind of food and drink
- Getting enough exercise, walking, dancing, etc.
- Listening to music
- Looking at beautiful things
- Using your creativity
- Using your logic
- Practicing empathy for others, and for yourself
- Noticing your experience without judging it
- Spending less time thinking or talking about what’s wrong with everybody
- Participating in positive rituals
- Naming things you appreciate or are grateful for
- Saying positive affirmations, prayers, mantras, etc.
- Doing meditation, yoga, etc.
- Being mindful
- Learning
- Surrounding yourself with things you want to learn
- Looking in the eyes of someone you trust

It might be hard to imagine how some of those things can affect the brain, but there are good reasons—actual physical reasons—for that. If they happen to be good for the rest of the human being, so much the better.

The fact remains that we are resilient. That’s what we’re built to be, and there are more resources for resilience within us and around us than we can ever imagine. Our job is to look for and use those resources, and never stop believing in ourselves, no matter how hard it is.

Survival is much, much more than just staying alive. And the power of survival is written into us—all of us—down to the smallest cell.