

## You Are Hard-Wired to Survive

We humans love to celebrate heroes—both fictional characters and real-life people—who've proven that they have the ability to survive. But why are some humans able to make it through battles, accidents, and natural disasters that are scary just to *think* about? In recent years, researchers have studied our brain's "survival equipment." What they've learned might help you face whatever scary situation comes your way.

### How Are Our Brains and Senses Wired for Survival?

As a human, you have natural equipment that developed through evolution to help your distant ancestors hunt, find food, and avoid being eaten by big animals. Without those adaptations, you probably wouldn't be here to read this article.

Let's look at some examples of our survival equipment.

#### ***Vision***

Like most predators in nature, you have "binocular vision." That means you have two eyes in the front of your head that get slightly different views, which your brain merges to form a single image. Binocular vision gives you the advantage of depth perception. And it lets you make sense of complicated environments that might be hiding threats to your safety or sources of food.

The retinas in your eyes are sensitive to fast movement. That helps you spot and zero in on anything that moves quickly toward or away from you. Being stressed also causes "tunneling" of your vision, letting you focus narrowly on the immediate danger.

#### ***Hearing***

Sound can travel a long way and provides information about things you can't see, like something that's hidden in darkness or concealed around a corner. For that reason, your brain has evolved to be sensitive to sound *and* to process it 20 to 100 times faster than visual information.

If your brain picks up a signal of a threat or feels under stress, it quickly goes into survival mode. Even a small amount of stress triggers a reaction that starts in your brain and releases neurochemicals—which mess up your logical thinking but also kick in your fight-or-flight reflex. That means you can quickly move out of a situation if you need to.

#### ***Navigational Gear***

Whether you're roaming through the wilderness or trying to figure out an unfamiliar neighborhood, your brain's limbic system helps you create a mental map of your route. A brain region called the hippocampus lets you organize memories about specific locations that can help you find your way. And another brain area has grid cells that fit your surroundings into a regular pattern—almost like graph paper.

### ***Survival-Oriented Thinking***

Most of the time, you learn things gradually, by building connections between actions and their outcomes. But in some situations, your brain switches to a system called one-shot learning. This lets you make quick decisions based on hunches. For example, you might avoid eating berries, because you remember that you once ate similar-looking berries and later became ill, even though you don't know for sure that was the cause.

### **What Makes Some People Better At Survival?**

Despite all that basic survival equipment, some people do better in difficult situations than others. What do people who survive horrific situations—like being stranded in a raft at sea or buried under earthquake rubble—have in common?

#### ***They keep it real.***

Survivors tend to be realists who quickly recognize the seriousness of a situation and focus on what they need to do to survive, instead of becoming stuck in denial. They have a realistic view of their own physical limitations: they know when to rest and when to avoid something that might be beyond their abilities. At the same time, they are independent thinkers who would break rules if they thought it was necessary.

#### ***They stay on task.***

Survivors usually are good at staying organized and tuning out distractions. They focus on what they have control over, like things in their environment that they can use to improve their situation.

#### ***They bounce back.***

Another difference between the typical person and someone who's good at survival is how they react to setbacks. Those who respond really well to stress use that adrenaline to their advantage and channel it in a way that's productive. For example, let's say they become lost and disoriented. Instead of panicking, survivors open up to what's going on around them and stay aware of landmarks to help them navigate their way.

#### ***They cooperate.***

Survivors have the ability to work together with other people who are facing the same plight. Probably one of the main reasons that the human species managed to survive is because of our brain's ability to deal with social complexities. Humans—unlike any other animal—can join together with people they don't know and cooperate to overcome things that they couldn't handle on their own.

#### ***They care.***

Perhaps most importantly, most survivors tend to have strong family bonds. They're motivated to endure an ordeal because of their desire to reunite with their loved ones.

*Adapted from the article "You Are Hard-Wired to Survive" by Patrick J. Keiger  
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