



Clear Thinking About Stress Bruce Taylor

Introduction

There seems to be a lot of confusion and loose thinking about stress in popular journals and books. How else can you explain terms like “good stress” and concepts like “A certain amount of stress is good for you,” or advice like “Stress is unavoidable.” Once you understand the meaning of stress you’ll realize that stress is always harmful, that there is no “safe” level of stress, and that you can deflect stress if you know how. Let’s start by straightening out the definition of stress: stress is not a mental or emotional state, and it’s certainly not a moral or metaphysical issue. Stress is a physiological and medical condition, produced by prolonged feelings of insecurity and anxiety.

Physical and Mental Symptoms

The Japanese word, “karoshi” means, approximately, “death by stress,” and it’s a significant source of mortality among Japanese workers, especially middle-aged white collar men. Stress kills them either directly, by causing their bodies to break down, or indirectly, through depression and suicide. In either case, stress is bad news and it’s no exaggeration to say that your life is at stake in a stressful situation. Figure 1 is a partial listing of the physical and mental symptoms that are either caused directly by stress or that stress makes worse. There is virtually no system or organ of your body that isn’t at risk from stress.

Our Biological Inheritance

If stress is so harmful, why in the world are we so susceptible to it? Wouldn’t you think that evolution would have eliminated it? In a sense, stress was invented millions of years ago, long before we became human, as an adaptation to living in a dangerous world. To explain this paradox, let’s imagine one of our long-ago ancestors on the plains of Africa who suddenly looks up and sees a leopard on the branch over his head. In much less than half a second, without any conscious thought, his brain registers the picture of the leopard and classifies it as a life-threatening danger. Then the brain starts to mobilize the body either to run away or for defense.

Physical Problems	Mental Problems
High blood pressure	Depression
Atherosclerosis	Anxiety
Angina	Phobias
Diabetes	Suicide
Arthritis	Alcoholism
Eczema and psoriasis	Drug abuse
Hyperthyroidism	Burnout
Immune deficiencies	Workplace violence
Autoimmune diseases	Domestic violence
Gastric reflux	Road rage
Irritable bowel	Sleep disturbances
Syndrome	Anorexia and bulimia
Cancer	Chronic overeating
Colonitis	Sexual dysfunction
Asthma	Personality disorders

Fight or Flight?

When the brain perceives the leopard in the tree and decides that it is dangerous, it sends a signal to the adrenal glands, which sit on top of your kidneys. In response, the adrenal glands produce two hormones: first adrenaline and later cortisol.

Adrenaline acts very quickly on almost every part of your body. Your heart begins to beat more quickly and strongly, the small blood vessels in your skin contract (that's why you look "white as a sheet" after you're scared), your stomach stops digesting food, and your vision narrows to a "tunnel". All of these changes make you, for a little while, stronger and quicker than you normally are - ready to run away from the leopard.

As you're running away from the leopard, the adrenal glands start to produce a hormone called cortisol. Cortisol acts to increase the amount of sugar in your blood for quick energy, and if you have to flee for days and days without food, cortisol helps your body convert muscle and bone into energy.

The combined effect of adrenaline and cortisol is to give us the energy we need to deal with dangerous situations - and that's why we evolved the fight/flight response in the first place.

Where Does the Stress Come In?

As long as your body is reacting to a leopard in a tree, everything is fine: you run away and the stress hormones start to disappear after an hour or so. But if you can neither run away from the danger nor fight it, then the levels of

stress hormones never go down. The adrenaline keeps on making your heart beat hard, and the cortisol keeps breaking down muscle and bone to keep your blood sugar high. If this goes on for days at a time, you will start to feel the effects: changes in your sleep and eating patterns, tunnel vision, abnormal tiredness, and a general anxiety and uneasiness. What we commonly call stress is your perception of your body's physical reactions to elevated hormones.

Why Does Work Cause Stress?

"Well," you might ask, "That's all very nice about reacting to the leopard in the tree, but why does my work trigger a stress reaction - I haven't noticed any leopards about." It seems that the brain is not very sophisticated about recognizing danger: it reacts to an angry boss, or an upcoming deadline, or an office bully in just the way it would react to the leopard: it starts to mobilize the stress hormones to either fight or run away. But in the office you can't do either one - you can't punch people in the nose and you have to come back tomorrow, even if you don't want to. This combination of perceiving danger and not being able to do anything about it triggers job stress, and it won't stop until you can either fight or flee.

More Control Means Less Stress

If lack of control makes stress worse, then it follows that being in control counters stress. "Being in control" means different things to different people. For some workers, it just means getting to decide when they take their

breaks, and to have some flexibility in scheduling. For others, it means getting to decide how to get the job done: what order to machine the parts or how to process the forms most efficiently. But for all workers, getting to make decisions about how and when to do their job reduces the feeling of danger, lowers stress and improves health.

Three anti-stress strategies:

- **Start taking control of the job.**
- **Start learning new skills.**
- **Form a social support network.**

Learning Conquers Stress

Many, many studies show that one of the best things you can do to reduce your stress level is to start learning something new. Ideally, it should be something new at work, but that's not necessary. If you're feeling stress at work, taking an evening course, or even listening to books on tape helps put you back in control of your life and, as we've seen, more control produces less stress.

Social Support Helps Fight Stress

The last big thing that you can do to reduce your stress level is to build up a set of friends to support you. Studies show that, when assembly line workers are allowed to talk and socialize at their work stations, their level of stress goes down and the quality and speed of their work goes up. Similarly, if you can walk down the hall and drop in on a friend for a five-minute conversation, the social contact will start to reduce your anxiety and the stress associated with it.

What Does This All Mean For You?

We started out with the fuzzy thinking that produces notions like "good stress," and we learned that stress is inherently bad for you - very bad. We discovered that stress is not just in your head - it's making changes in your entire body. And we learned why we have stress in the first place - it's a leftover reaction to perceived danger, that gets triggered by modern-day situations like toxic work environments. And we learned at least three ways to reduce your stress level - take more control, start learning new skills, and develop a social support network.

The bottom line is this: you need to take job stress seriously, because it can kill you; and there are actions you can take right now, on your own, to start lowering your stress.

About Bruce Taylor



Bruce Taylor is the principal of CoachingProgrammers.com, an executive coaching firm located near Boston, Massachusetts. Bruce helps software organizations of all sizes to create low-stress, supportive, adaptable working environments, so that the engineers, leaders, and managers can work as effectively as possible. He provides executive coaching for senior managers who are creating superior organizations, management coaching for technical leaders who are adapting to new agile practices, and individual coaching for engineers who are upgrading their skills. Bruce has a Masters in Computer Science from Duke University, a Masters in Community Psychology, and a Certificate in Job Stress and Healthy Workplace Design, both from the University of Massachusetts.