

# a personal message from Hans Selye

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Hans Selye

Stress is unavoidable and, in fact, it would be undesirable to avoid it. I have often said that stress is the spice of life: it can be a great stimulus to achievement. Nevertheless, it can cause disease, suffering, and death. How do we explain this paradox?

## Definition of Stress

I have defined stress as *the nonspecific response of the body to any demand made on it*. Examples of the more familiar *specific* reactions are shivering in the cold and sweating in the heat. Every demand made on us evokes such specific reactions. But there's a common denominator in every stress situation: it requires adaptation irrespective of what the problem may be. Thus, we find that the body also responds in a *nonspecific* manner—a whole set of reactions occur that don't vary with the requirements of each encounter.

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Suppose you're asleep in bed and you feel that you're really completely free of stress. You're still under *some stress*. Your heart must go on pumping; your digestive system will go on digesting last night's meal; even your brain will go on dreaming, which is work and which is a demand. So there's no such thing as no stress. Only in a dead object is there no stress because there's no demand.

If we speak of somebody being under stress, we mean he/she is under *unusual* stress, or perhaps even *harmful stress*. In any case, more than the basic resting level. And that's

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not without precedent, even in medicine, where we speak of the patient running a temperature. Well, everybody's running a temperature—the normal temperature. So, everybody's under stress—the normal stress. It's undesirable to try to figure out ways of how to avoid stress. You have to make it work for you.

## Medical Theory

One of the greatest difficulties in having the stress theory accepted in general by medicine was that it seemed so unlikely that every type of normal action or the fight against any kind of disease could provoke an *identical* response in our body. And yet, this is the case. Of course, we do reply to each stimulus in a specific manner also. But, superimposed on each of these adjustments to the particular needs created by a situation, there's always the *biologic stress reaction*. This is also known as the *general adaptation syndrome* since it represents a response that helps adaptation in general—adaptation to anything.

In situations of considerable stress, our adrenal glands produce adrenaline and a group of hormones that I've called "corticoids"; of these cortisone is perhaps the best known. All the stress reactions are essentially defensive, but, if they're insufficient, excessive, or otherwise faulty, they themselves may cause diseases. We call these *diseases of adaptation* because they're caused much more by deranged adaptive reactions of our body than by the direct damaging effects of disease-producing agents.

If a blow breaks a bone or a knife penetrates the skin, the resulting damage is due to the injurious agent itself. However, many diseases have no identifiable single cause and can be produced by anything to which our stress mechanism responds inappropriately. Among the best-known diseases of adaptation are gastrointestinal ulcers, high blood pressure, cardiac accidents, allergies, and many types of mental derangements.

It will largely depend on accidental factors—such as genetic predisposition or previous disease in a particular organ—whether the heart, kidney, gastrointestinal tract, or brain will suffer most. If you look at your body as a machine, in each machine there's one link that's weakest. No matter what you use the machine for, if you use it an awful lot, the weakest link is the most likely to break down under pressure, although all parts are equally exposed to it.

## Stress Indicators

How can we recognize when we're under excess stress?  
Are there recognizable symptoms that serve as stress indicators?

*These questions are of the greatest concern to all individuals, no matter what their profession. We can recognize stress better now than we could in 1936. For example, by determining such stress hormones as cortisone-like hormones, we can be sure that the patient is under stress. But usually he/she is under stress of such magnitude that he/she would know it anyhow, so that doesn't help much. We have to be satisfied with the primitive indices of stress that the patient can recognize.*

**Irritability** First among these, I think is irritability. A thing that wouldn't ordinarily bother you, immediately calls forth an emotional reaction if you're under unusual stress. For example, if the slightest error on the part of one of your subordinates gets you to an outbreak, that's stress.

**Loose Anxiety** Another thing is what we call "loose anxiety" in medicine—*anxiety that doesn't manifest itself in being afraid of anything in particular. You're just afraid, you feel uncertain, you're anxious. But if you're asked: "What are you anxious about?" you wouldn't know . . . you're just not at ease. That's another good indication.*

**Insomnia** Another is insomnia. If you're under too much stress because of what you're doing, you can't sleep.  
Now, not all of these things come together and various people react differently, but I think these are good indices.

**Just Had Enough** Then there's the feeling of just having had enough of it for the day. I myself go by this because none of my biochemical indices are any better. I feel that if you really study yourself from that point of view and you become aware of the problem, it's astonishing to what extent it's sheer horse sense.

**Creativity** The French philosopher, Henri Bergson, justly pointed out that our species should have been called, not "homo sapiens," the knowing man, but "homo faber," the making man. Man must use his/her making capacity—whether it's the most primitive type of making of the stone-age man who makes an arrowhead, or whether it's the most complex making of an atomic scientist.

You have to get it out of yourself, to have any talent or any potentiality. And the more talented, the more gifted you are, the more you have to give, and the more you suffer if not allowed to do it.

It's possible that in certain cases of predisposed people, they should rest. If you have had several severe cardiac accidents, you really should take it easier . . . but within limits, because you can get to the point where you live an awful long time, but have never experienced the joy of achievement—what I call *eustress*.

Goal-oriented people should pursue their goal, but they should keep in mind that they must not overwork and carry it further than their stress level . . . if for no other reason than the fact that they won't be able to enjoy the pleasure of accomplishment very long if they overdo it and their life is shortened by it.

*Goal-Oriented  
Person*

I've made quite an extensive study of very active, goal-oriented people—especially in the arts and sciences. It's astonishing how many of them, despite the fact that they're in a constant challenge, went long into their 80s or 90s being highly productive. And, they didn't age rapidly, because they were successful.

Think of the classic oldsters who were active until very late years—for example, among the painters and artists, Picasso; among the musicians, Pablo Casals, Toscanini, Artur Rubinstein. They were highly productive until a very advanced age.

*Positive  
Thinker*

The positive-thinking person will, perhaps, have more stress. But let's not forget that, in our official medical definition, stress isn't necessarily bad for you. The negative-thinking person may have less stress, but it will be bad for him/her. It isn't the quantity of stress that's bad, it's the kind and the reaction to it. So I believe that positive thinking is certainly a beneficial attitude in life. It's more conducive generally to success, which is, as I have just said, one of the best ways of keeping healthy and young.

**Syntoxic and  
Catatoxic  
Responses**

We can learn a great deal that's useful for everyday behavior, from a knowledge of how our bodies handle demands on the internal and physical level. For example, the *syntoxic* hormones—the syntoxic chemical messengers—carry the message of peace. They say that it isn't worthwhile fighting, so just ignore the situation. The *catatoxic* hormones are useful when the situation can't be ignored because it would be fatal. In that case, you have to fight, no matter what the danger.

Now, contrary to common opinion, nature doesn't always know best. For example, the person who gets terribly angry and takes an aggressive catatoxic attitude towards someone who's

drunk is killing him/herself by his/her own defense reaction if he/she happens to be a coronary candidate.

How to recognize which response to adopt in daily life is difficult to put into general rules, but I think that usually here intellect more than instinct can help you. You just have to sit down quietly and say: "All right now, what is my problem? It seems to bother me a lot. Let's analyze it. Is this something that I can put up with?"

Let's take a simple example. Suppose you have a fight, either with your superior in your job or with a member of your family. You can readily see from the other person's reaction whether, if you oppose it, there'll be a fight. That's usually quite easy. Now, is it worth the fight? If not, then just let it go. You don't have to fight over every little thing just to be right.

On the other hand, if you feel that this is something that will destroy your whole life if you give in—that it's going to create a precedent that will spoil your career or your home life—then be very energetic and fight it. Here, I think the only thing that can help is horse sense.

### **Code of Behavior**

As I have said, I don't think anyone should try to eliminate stress; rather you should find your own stress level, find out to what extent you're really sufficiently resistant to keep a certain level of activity. Also, you have to find a goal that you can respect—it doesn't make any difference whether other people respect it. You have to have enough independence to be your own judge as to whether your aim is right or wrong.

Finally, you have to decide in each individual situation whether the wise thing is to put up with a problem or to fight it. More than that I can't give as advice. Everybody is different because of internal genetic conditioning, previous experiences, and so on. All I can do is to try to give general directives and a philosophy of life. The application must be left up to the individual.

It would be impossible to give a meaningful description of such a philosophy here. Besides, this has been done at length in *Stress Without Distress*. Suffice it to say that our code of conduct is based on three principles.

### *Find Your Stress Level*

Work as hard and as fast as you feel is natural for you and pursue the aim of your own preference, without being sheepishly guided by what society expects of you.

### *Altruistic Egoism*

Admit that all living creatures are built so that they must look out for themselves first. You can do that without

developing inferiority or guilt complexes even if you do things for your own good, as long as they assure you the esteem, good will, and love of others. Incidentally, this is the only capital that can't be devaluated or taken away from you.

*Earn Neighbor's  
Love*

The time-honored wisdom of the biblical command "Love thy neighbor as thyself" can still be used in our scientifically oriented society. We admit that it's impossible to love on command. However, just as the ancient Eastern and Hebrew versions of this expression of "The Golden Rule" had to be translated into languages understandable by contemporary people, so the essence of this prescription can be rephrased from loving on command (more difficult to accomplish than dying on command as a religious martyr or patriotic hero) into a code of behavior that can give you worthwhile motivation for all your activities throughout life, namely: "Earn thy neighbor's love."

**Summary**

Perhaps two short lines can encapsulate what I have discovered from all my thought and research:

Fight for your highest *attainable* aim,  
But don't put up resistance in vain.