



Stress and Society

The fight against stress is urgent !

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United States estimates the cost at about \$60 billion. The French estimate their cost of professional stress at about 3% of the country's GDP, or about 5.1 billion Euros.

But perhaps more important than the economic impact of stress on our corporations is the extent to which stress is found throughout the world. The Canadians tells us that we humans are programmed to survive five, or at most seven, stressful

some serious progress. We think that stress can be treated in a positive way by sensitivity and involvement by first-rate managers in the workplace, who are deeply respectful of everyone; we think that this is also true of all the members of any community. We therefore think it essential to encourage generalized civic involvement. Interestingly, the Canadians have taken the lead in this area, making it one of the ten points of their policy of well-being.

Good and bad stress

One often intends to speak about good and bad stress.

Good stress is that which enables us to concentrate and to face a danger under optimal conditions. It is of short duration and the best is when it is associated an expenditure of energy in order to "consume" the substances released at the time of the stress.

Bad stress is that which is chronic. It is generally of psychic origin and, in general, is accompanied by no expenditure of energy. The released substances can then exert their toxic effects.

In France, stress is a mass phenomenon affecting 44% of the population, according to the latest TNS/Sofres poll. It is not limited to individual well-being, professional and/or academic success (and even athletic prowess). Stress is also a social and economic scourge which costs a great deal of money to the community. The annual overall cost of stress in the United States is estimated to be \$1.8 billion; the comparable cost to the U.K. is estimated at \$160 billion (the population of France and the UK are approximately the same).

For companies, the cost of stress is also colossal. Switzerland (population 7.5 million) estimates the cost of between 2.9 million Euros and 9.5 million Euros. The



What are the causes of stress, what are its mechanisms, what are its consequences, what avenues should be followed for treating it? We will outline the answers to these questions in this four page

situations each week, whereas we experience an average of 50....each day!

Faced with this alarming situation, we have decided to work with a variety of community actors: salaried employees, doctors, corporate managers... in order to brainstorm on new strategies for dealing with the fight against stress.

Already, we have made

document.

For more information, of if you wish to share your ideas with us, contact us directly at our blog (see page 4 for details).

Thank you.

Emmanuel Vasseneix
Chairman of the Fiscal Commission of the CJD
(Centre des Jeunes Dirigeants
– Center for Young Leaders)

What causes stress ?

Stress has multiple causes, and it is important to describe one particular characteristic of stress first. Whether physical, chemical or psychological, the stress mechanism is always identical, and the secreted substances are identical.

Physical sources include radiation (solar or other), variations in air pressure (as when travelling by air), changes in temperature, speed, noise levels.... The problem of noise is compounded by the fact that the more noise one is subject to, the more one's sensitivity to noise increases.

Chemical origins of stress are rare, and are usually mentioned when speaking of Hans Selye, world-renowned for his pioneering work on stress. He found that the injection of toxic substances in animals provoked identical reactions on blood vessels, cartilage, and other tissue which ensure the body's natural defences.



Psychological problems are by far the most frequent cause of stress, and they account for the exponential growth and toxicity of stress. They can be obvious (the death of a loved one, a friend's illness, a separation, administrative or financial problems, a professional problem, etc.), but other psychological causes can be less obvious to the victim, and more insidious (threat of a terrorist attack, the effects of global warming, fear of losing one's job, the effects of globalization, worry about children's success, worry about how to finance retirement, the effect of technological innovations, etc.).

Mecanisms :

Whatever its cause, stress always results in the release of certain substances in the body which may be toxic.

Whenever a person is confronted with a dangerous wild animal, the well-known "fight or flight" syndrome takes over as a reaction to the stress. Physical capacities are enhanced: the heart operates more efficiently, the bronchial tubes dilate to rush oxygen where needed, pain is masked by the release of endomorphins (the body's natural morphine), sugar levels rise, and time seems distorted to "slow motion" which helps us react more efficiently than when normal conditions prevail.

On the other hand, when stress is brought on by problems at work or other problems of a psychological nature, the same natural changes take place within our bodies, but the substances released into the bloodstream are not "consumed" as they are in the case of the exterior, physical threat such as the one described in the preceding paragraph. In these more psychologically stressful circumstances, the released substances become toxic.

There are two types of substances: catecholamines, such as adrenalin and noradrenalin; and hormones such as cortisol and aldosterone.

These substances and the imbalances they cause are the basis of toxic stress.

It is important to make clear the following. Other types of activities can provoke identical imbalances, especially hormone imbalance, and as such, we must be careful not to add other stress to such imbalances because the cumulative effect can be extremely dangerous.

On the plus side, we need to recognize the beneficial aspects of stress. We must try to find new strategies to combat toxic stress. The amazing speed at which our planet has developed over the past few decades has led to some great suffering. We often talk about "global warming" and the holes in the "ozone layer". We must work hard to protect another critical aspect of our planet: Man. Only in this way can we truly move towards "sustainable development".



What are the consequences of stress ?

There are many consequences of stress, and they aren't all linked to our health. They include scholastic achievement, and athletic performance. Finally, the economic repercussions are catastrophic.

About our health...

Chronic stress affects our immune system, leaving us open to allergies, and altering our natural defences. This is what explains the influence of chronic stress on certain types of infection (bacteria and viruses), on auto-immune diseases, and also, it seems, on the evolution of certain types of cancer. In this latter case, cells which are designed to attack the mutant cells (at the origin of the tumour) are less numerous. Stress affects this, and is harmful to our immune system, to cortisol and to catecholamines such as adrenalin and noradrenalin for instance.



Chronic stress also has a negative effect on our cardiovascular system. Such stress can cause high blood pressure, vascular lesions, angina, and stroke. These effects are in relation to the liberation of catecholamines (adrenalin and noradrenalin), cortisol and aldosterone.

This scourge also affects the muscular-skeletal system. In the case of osteo-arthritis, it seems the competition between two hormones released at the onset of stress cause the lesions. These two hormones are cortisol and aldosterone: the former is anti-inflammatory and the latter is pro-inflammatory. Chronic stress is also at the basis of contractures because it stimulates the stress receptors (Beta) which are in our muscles, and these receptors are stimulated by catecholamines.

We can also cite the influence of stress on gastric ulcers; there is so much agreement on this that we now talk of "stress ulcers" – these are caused by hyperacidity and the contraction of blood vessels which irrigate the stomach.

Many other illnesses are brought on or favoured by stress, such as certain intestinal problems, diabetes, respiratory problems, and moral problems. Regarding this latter point, we can say that they are more severe than they seem, as they are an inescapable source of stress.

About scholastic success...

Stress, whether by itself if it is serious, or associated with a minor learning difficulty if it is more moderate, can cause a child to fail scholastically, even if he is very intelligent.

Severe stress will very quickly alter the moral state of a young person, and by breaking his will to succeed, lead easily to failure. This is not the most insidious form of stress, however. Other forms are brutal and need our attention. The most perverse form is the second, where moderate stress contributes to the failure of a child who already has had a variety of small learning difficulties, but who, in a more serene atmosphere, could succeed quite well.



About athletic success...

Chronic stress impedes top athletes from being serene and concentrating on their objectives. It also provokes hormone imbalance (lowering of sex hormones, and increase in cortisol) which are identical to those brought on by intense athletic activity. The level of sex hormones plunges, the will to win changes, and the positive results become impossible. It is the will to correct these hormone imbalances that are at the bottom of certain forms of doping.



Economic repercussions

Here are some numbers that tell the story of the financial cost of stress to society.

In France, the cost of career-related stress is estimated at 51 billion Euros.

In the United Kingdom (UK), the global cost of stress is estimated at \$160 billion.



Have more information,
on our blog:



<http://stress-society.over-blog.net>

Partakers :

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Student

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Doctor

Paulo Dos Santos



Council in the field of the purchases as a supplier of solutions (London)

Treatment strategies :

We must differentiate between severe stress, where classic therapies are effective (such as beta blockers, tranquilizers, etc.), and chronic stress. In chronic stress, new strategies must be found because it is impossible to imagine taking drugs for one's entire life! The culture of motivation should be a privileged treatment.

Christian Lemoine, the founding president of CRECI (Centre for Research and Study of Industrial Communication) often says in his speeches that: "a man is invulnerable to accidents and illnesses when he is on his way to work on something that he is passionate about." He also thinks that "motivation is a product which can be manufactured."

And he is right!

When a manager motivates an employee, two neuro-mediator substances enter the brain: dopamine and gaba. Dopamine incites pleasure brought on by motivation. Gaba is a calming neuro-mediator; it is secreted when one takes tranquilizers.

Motivation therefore allows one to feel serene and to feel...pleasure!

Whether brought on by becoming involved in a project that one feels is a good project, or by the management of a corporation, motivation is thus a good treatment for stress.

The association of involvement and a management team which considers that "the company's real capital is Man" can achieve incredible results.

You've understood it – it's the way we've decided to work. We hope you'll join us, in one way or another, on this journey.



Partakers (continuation) :

Laurence Fischer



Champion of the world of Karate

Jean-Ange Lallican



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