

How to survive while living with stress

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Modern life is full of time pressure and frustration. In other words, it is stressful. Racing against deadlines, sitting in traffic, arguing with your spouse—all these make your body react as if you were facing a physical threat. This reaction gave early humans the energy to fight aggressors or run from predators. It helped the species survive.

Today, the stress response has outlived most of its evolutionary purpose. Instead of protecting you, it may, if constantly activated, make you more vulnerable to life-threatening health problems.

What is the stress response?

Often referred to as the "fight-or-flight" reaction, the stress response occurs automatically when you feel threatened. Your pituitary gland, located at the base of your brain, responds to a perceived threat by stepping up its release of a hormone (ACTH), which signals other glands to produce additional hormones. When the pituitary sends out a burst of ACTH, it is like an alarm system going off deep in your brain. This alarm tells your adrenal glands, situated atop your kidneys, to release a flood of stress hormones into your bloodstream. These hormones including cortisol and adrenaline focus your concentration, speed your reaction time, and increase your strength and agility.

How stress affects your body

After you have fought, fled or otherwise escaped your stressful

situation, the levels of cortisol and adrenaline in your bloodstream decline. As a result, your heart rate and blood pressure return to normal and your digestion and metabolism resume a regular pace. But if stressful situations pile up one after another, your body has no chance to recover. This long-term activation of the stress-response system can disrupt almost all your body's processes, increasing your risk of obesity, insomnia, digestive complaints, heart disease and depression.

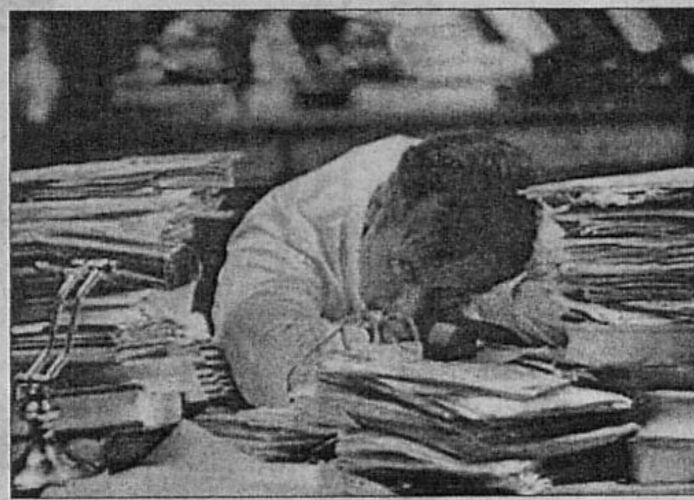
Digestive system: It is common to have a stomachache or diarrhea when you are stressed. This happens because stress hormones slow the release of stomach acid and the emptying of the stomach. The same hormones also stimulate the colon, which speeds the passage of its contents. Chronic stress can also lead to continuously high levels of cortisol. This hormone can increase appetite and cause weight gain.

Immune system: Chronic stress tends to dampen your immune system, making you more susceptible to colds and other infections. Typically, your immune system responds to infection by releasing several substances that cause inflammation. Prolonged stress keeps your cortisol levels continuously elevated, so your immune system remains suppressed.

In some cases, stress can have the opposite effect, making your immune system overactive. The result is an increased risk of autoimmune diseases, in which your

immune system attacks your body's own cells. Stress can also worsen the symptoms of autoimmune diseases.

Nervous system: If your fight-or-flight response never shuts off, stress hormones produce persistent feelings of anxiety, helplessness and impending doom. Oversensitivity to stress has been linked with severe depression, possibly because depressed people have a harder time adapting to the negative effects of



cortisol. The byproducts of cortisol act as sedatives, which contribute to the overall feeling of depression. Excessive amounts of cortisol can cause sleep disturbances, loss of sex drive and loss of appetite.

Cardiovascular system: High levels of cortisol can also raise your heart rate and increase your blood pressure and blood lipid (cholesterol and triglyceride) levels. These are risk factors for

both heart attacks and strokes. Cortisol levels also appear to play a role in the accumulation of abdominal fat, which turns people under higher risk of heart disease and diabetes.

Other systems: Stress worsens many skin conditions such as psoriasis, eczema, hives and acne and can be a trigger for asthma attacks.

Individual reactions to stress: Your reaction to a specific stressor is different from anyone else's.

slight differences in these genes.

Reducing the effects of stress

Stress develops when the demands in your life exceed your ability to cope with them. It follows, then, that you can manage stress by—

- Changing your environment so that the demands are not so high
- Learning how to better cope with the demands in your environment
- Doing both.

Here are some helpful techniques—

Look after your body: To handle stress, your body requires a healthy diet and adequate rest. Exercise also helps, by distracting you from stressful events and releasing your nervous energy.

Learn to relax: It is the polar opposite of the stress response. Deep-breathing exercises may put you in a relaxed state. Follow these steps:

1. Inhale through your nose to a count of 10. As you inhale, your upper abdomen should rise—not your chest.
2. Exhale slowly and completely, to a count of 10.
3. Repeat five to 10 times. Try to do this several times every day, even when you are not feeling stressed.

If you have persistent trouble relaxing, consider taking up meditation or some disciplines said to focus your mind, calm your anxieties and release your physical tension. Therapeutic massage may also loosen taut muscles and calm frazzled nerves.

Shift your outlook: In many

cases, simply choosing to look at situations in a more positive way can reduce the amount of stress in your life. Step back from the conflict or worry that is putting you in knots and ask what part of it is troubling you most. Are you afraid of losing face? If so, would it really be that bad? Are you angry or frustrated to the point of losing self-control? If so, is your reaction out of proportion? Take a break, talk to someone close and get a different perspective on your troubles.

Get help: On your own, you may have limited success trying to change the habitual patterns of thought and behavior that trigger your stress response. Psychiatrists, psychologists and specialised clinical social workers are trained to help you break free of these patterns.

Meeting the challenge

Stress management requires continuous practice as you go through life and deal with change which often comes unexpectedly. Even if you take everyday frustrations in stride, your stress response can still surge up when you find yourself dealing with something big, such as illness, job loss or bereavement.

Your body's fight-or-flight reaction has strong biological roots. It is there for self-preservation, even if it is not much helpful in a demanding job or a stormy relationship. If stress is getting the better of you and you fear its long-term effects, don't be afraid to seek help. You may not find a quick or permanent fix, but in time, you will recognise the signs that pressure is building and learn the best ways to lighten the load.

HEALTH TIPS

Don't use aspirin during pregnancy



Aspirin is a very common drug. Although it is a drug of NSAID (Non Steroidal Anti Inflammatory Drug) group it has various actions like thrombolytic action which is used in small dose prophylactically for the management of mild hypertension. But the most popular use of aspirin is for the remedy for bad headache. People frequently take aspirin for this

purpose and it is easily available in the dispensaries.

Aspirin has good action in bad headache, but the important thing to remember is that -- it has teratogenic effect (organ deformity during intrauterine life) especially in the second trimester (12 to 28 weeks). It causes cleft lip and cleft palate. So it should not be used during pregnancy.

Cholesterol levels change with the seasons

Higher levels more common in winter

The amount of artery-clogging cholesterol running through your veins may peak during the winter months. A new study shows that total cholesterol level may change with the seasons and reach their highest point in December for men and in January for women. In addition, the study shows that women and people with high cholesterol may be particularly susceptible to seasonal variations in their cholesterol levels.

average total cholesterol level was 222 mg/dL (milligrams per deciliter) in men and 213 mg/dL in women. According to standard, a cholesterol level over 240 mg/dL is considered high, while a total cholesterol less than 200 is considered desirable.

But researchers say changes in diet alone do not explain these changes. Instead, they say a combination of factors, including changes in physical activity, light exposure, temperature, blood volume, and food availability, may play a role in creating seasonal variation in cholesterol levels.

The study showed that during the 12-month period, cholesterol levels increased by an average of four points in men and by more than five points in women. Individual increases in cholesterol levels were greater among people with high cholesterol levels at the start of the study.

In the study, published in the April 26 issue of the *Archives of Internal Medicine*, researchers followed a group of 517 healthy volunteers for one year and collected information on diet, physical activity, light exposure, and cholesterol levels.

Researchers also found that there were increases in the number of men and women whose cholesterol levels reached the threshold of 240 or more during the winter months.

Researchers found that the

Researchers say more studies are needed to understand the effects of seasonal variation in cholesterol levels. But at this point, season-specific cholesterol guidelines are not justified.

Source: Archives of Internal Medicine

14th Congress of Asia Pacific Orthopaedic Association ends in Malaysia

Over 1,000 surgeons of more than 30 countries exchanged scientific ideas in today's orthopedic world; 15th congress will be held at Seoul in 2007

ZAM KHAIRUZZAMAN

The six-day long 14th triennial congress of the APOA (Asia Pacific Orthopaedic Association) concluded successfully in the Malaysian capital of Kuala Lumpur recently.

This was revealed by Professor Dr Amjad Hossain, Head of the Department of Orthopaedic and Trauma Surgery, Dhaka Medical College Hospital after his arrival from Kuala Lumpur who participated in the congress with a good number of delegates of Bangladesh Orthopaedic Society.

Over 1,000 surgeons from over 30 countries of the Asia and Pacific region including Bangladesh assembled to share the latest knowledge and advancement in orthopaedic surgery.

Attending surgeons discussed ideas and problems on spine, hip, knee, sports, paediatrics trauma, foot and ankle, hand and microsurgery, metabolic bone disease, tumour, rehabilitation, shoulder and elbow and basic science at scientific sessions of the congress.

It was declared that the 15th triennial congress of the APOA will be held in Seoul in 2007.

A brief history of the congress

In 1962, a group of orthopaedic surgeons attending the Second Pan Pacific Rehabilitation conference in Manila met at the house of Dr Catalino Jocoson and decided that it would be a good idea to discuss orthopaedic ideas and problems on a regional basis. Thus the WPOA (Western Pacific Orthopaedic Association) was created. Its objectives were—

- To advance the science, art and practice of orthopaedic surgery in the Asia and Pacific region, particularly in member countries.
- To promote professional education, research and other interests in orthopaedic surgery.
- To share knowledge of medical problems and solutions thereto.
- To assist countries of the region in all matters relating to orthopaedic surgery.
- To promote fellowship and understanding between orthopaedic surgeons of the region.

The original member countries bordering the western pacific basin were Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines and Taiwan, ROC. In 1965, during the council meeting held in



Dr M Amjad Hossain (2nd from right) and Dr Browne, former President of APOA (2nd from left) with some delegates in the conference.

Japan, a further four countries were admitted to the membership of the WPOA. The countries were Australia, New Zealand, Thailand and South Vietnam.

In April 2000, the WPOA underwent a name change to become the APOA. The name change reflected the growing links and common concerns faced by surgeons in Asia as well as the Western Pacific regions.

Each triennial congress surpassed the preceding one both in terms of number and quality of papers presented and also the number of delegates, reflecting the rapid growth and sophistication of trauma and orthopaedic surgery in the region. The APOA offers a unique opportunity for exchange of ideas and fellowship within a massive region of the world, with its more than 3 billion population and 360,000 orthopaedic surgeons.

The various activities of the association in the 42 years since its inception have contributed enormously to the expansion and progress of trauma and orthopaedic surgery in the region. The members of the association are united in their desire to advance the speciality, serve humanity and improve the quality of life in the communities in which they live, be it in a large city with the latest facilities or a small town with just the basics set up.

Fight childhood obesity to help prevent diabetes

14th November observed as 'World Diabetes Day'

Worldwide, it is estimated that more than 22 million children under five years old are obese or overweight, and more than 17 million of them are in developing countries. Each of these children is at increased risk of developing type 2 diabetes (which used to be known as mature-onset diabetes), say the World Health Organisation (WHO) and the International Diabetes Federation (IDF).

"Tackling childhood obesity now is a highly effective way of preventing diabetes in the future," said Dr Catherine Le Galès-Camus, WHO Assistant Director-General for Noncommunicable Diseases and Mental Health, in the lead-up to World Diabetes Day on 14 November 2004.

Chronic diseases such as diabetes, heart disease, cancer and stroke are a barrier to economic development. While undernutrition continues to be a key concern, particularly in developing countries, governments are also facing up to the fact that many children in all regions of the world have poor eating habits and are not getting enough exercise.

Globally, an estimated 10 per cent of school-aged children, between 5 and 17 years old, are overweight or obese, and the situation is getting worse.

The link between obesity and diabetes is well-established. Around 90 per cent of people with diabetes have type 2 diabetes and of these the vast majority are overweight or obese. "Overweight and obesity increase the risk of many chronic diseases, including type 2 diabetes, heart disease, stroke and some cancers. Unless we address the underlying causes of the obesity epidemic it has the potential to overwhelm health systems throughout the world," said Dr Le Galès-Camus.

WHO is working with its Member States throughout the world to implement the Global Strategy on Diet, Physical Activity and Health, which was adopted at the May 2004 World Health Assembly.

The strategy recommends a comprehensive range of changes at the individual, community, national and international levels which, if effectively implemented, have the potential to turn around the obesity epidemic. The strategy addresses changes needed in lifestyles that have been linked to the increase in overweight and obese children over the last twenty years.

Increased availability and promotion of foods high in fat and sugar mean that children no longer eat the way their parents did. Nor do they do the same amount of physical activity. In each country the situation is different, but the reasons why children are less active than a generation ago include increased urbanisation and mechanisation, changes to transport systems and increased hours spent in front of TVs and computers.

Yet small changes can make a big difference. In



WHO PHOTO: CORBIS/REX

Singapore, nutrition education in class, combined with a school environment offering healthy foods and drinks, and special attention for students who were already overweight or obese, resulted in a significant decline in the number of obese students. In the UK, limiting access to sweet, fizzy drinks at a group of primary schools resulted in slimmer children. Other studies have demonstrated success by increasing physical activity in school, making changes to school lunches, limiting hours spent watching TV and providing health education.

Professor Pierre Lefebvre, President of IDF, underlined the need for urgent action. "Children and adolescents who are overweight tend to grow into overweight adults. Poor habits of nutrition and lack of physical activity are likely to endure, putting today's young people at risk of type 2 diabetes in the future. Even in childhood, overweight and obesity lead to higher levels of blood glucose (sugar), lipid (fat) and blood pressure. In many populations, doctors are seeing increasing numbers of adolescents with type 2 diabetes, a disease that in the past was not normally seen until middle or older age."

Diabetes is a chronic condition that occurs when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces. People who have type 1 diabetes produce very little or no insulin and require daily injections of insulin to survive. People with type 2 diabetes cannot use insulin effectively. They can sometimes manage their condition with lifestyle measures alone, but oral drugs are often required and, less frequently insulin, in order to achieve good metabolic control. Type 2 diabetes used to be known as non-insulin dependent diabetes or mature onset diabetes.

WHO and IDF are working together to raise awareness about diabetes worldwide. Their joint project, Diabetes Action Now, is supported by a World Diabetes Foundation grant to IDF and by WHO funds.

Source: <http://www.who.int>

Small doses of caffeine best to stay awake

Small, frequent doses of caffeine are best for those who need to stay awake over a long period of time, according to a U.S. study.

The regular doses of caffeine build up to counteract the body's natural desire for sleep and builds up the more one stays awake, the study said.



Small, frequent doses are more effective than a large jolt of caffeine in the morning, which wears off just as the body begins to feel the need for sleep.

"Most of the population is using caffeine the wrong way by drinking a few mugs of coffee or tea in the morning, or three cups on the way to work," Wyatt, laboratory director of the Sleep Disorder Center at Rush University Medical Center in Chicago, said.

"This means that caffeine levels in the brain will be falling as the day goes on," he said. "Unfortunately, the physiological process they need to counteract is not a major player until the latter half of the day."

That process is the system that builds up the appetite for sleep. Caffeine is thought to block the receptor for adenosine, a critical chemical messenger involved in the

body's drive for sleep, the report said.

Researchers at Rush, along with others at Brigham and Women's Hospital in Boston and Harvard Medical School, studied men in private suites who had no way of knowing what time it was for 29 days.

The men were scheduled to stay awake nearly 29 hours straight, simulating the amount of time some doctors, military and emergency services personnel have to up.

Those who were given a caffeine pill every hour equivalent to the caffeine in two ounces of coffee did better on tests than those who received an inert placebo, the study said. The subjects who took the caffeine pill also felt sleepier than the others when bedtime finally arrived, it said.

Source: <http://www.raiders.com>