

The Newsletter of THE AMERICAN INSTITUTE OF STRESS

Number 8

1992

Stress and Ulcers: A Matter of Perception?

While it is widely believed that ulcers are frequently due to stress, scientific proof is hard to find. Recently, it has been shown that a large percentage of ulcers may be due to helicobacter infection, and can be eradicated by combination antibiotic therapy. However, this does not negate the stress/ulcer link. Stress has been shown to decrease immune system defenses against other microorganisms which lie dormant in the body, such as the tubercule bacillus and herpes simplex virus, resulting in clinical infection. New support for the role of stress in ulcers comes from a study of over 45,000 individuals who had participated in a National Health and Nutrition Examination survey between 1971 and 1975. One of the questions asked was "have you been under or thought you were under any strain, stress, or pressures during the last month?". Responses were categorized as "not at all", "a little", "some - but about usual", "some", "more than usual: quite a bit of pressure", and "almost more than I could bear or stand". The subjects who reported any increased level of stress were defined as "stressed". The same questions were asked during a follow up study

conducted during 1982 - 1984. At baseline, 68 percent reported being stressed and 78 percent of these also reported being stressed on follow-up. For individuals not stressed at baseline, almost half fell into the stress category on the repeat test, confirming other studies that reveal a sharp increase in stress over the past two decades.

Two hundred eight individuals (4.5 percent) developed peptic ulcers during the period between the two tests. It was clearly shown that the likelihood of developing an ulcer increased directly proportional to increases in stress levels. It was highest in young women, those with less education, smokers, and regular aspirin users. Other studies have also shown that patients with ulcers tend to perceive life change events more negatively than control subjects. When such stressors are interpreted as being more threatening, resultant hypothalamic stimulation may cause activation of autonomic nervous system and endocrine factors that facilitate the development of ulcers. The large number of patients involved in this study, and its prospective nature, increases the significance of its conclusion that self perceived stress is a definite risk factor for peptic ulcer.

Archives of Internal Medicine, April, 1992

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For further information on the original source of abstracts and other reprints available on similar subjects, please send a self-addressed stamped envelope to: Reprint Division, American Institute of Stress, 124 Park Avenue, Yonkers, NY 10703.

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The Newsletter of
**THE AMERICAN INSTITUTE OF
 STRESS**

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Stress Comes to Mexico

"Mexicans are gulping Stresstabs in record numbers", according to a recent newspaper report. The customary portrayal of Mexicans as laid back, siesta seeking slow pokes is fast disappearing. A self help group called *Neuroticos Anonimos* has just opened its 60th Mexican chapter. Manaña land now has electronic billboards at large commuter intersections which blink an emergency phone number for those in the grip of a "crisis emocional". Mexicans are increasingly turning to hot lines, group therapy, pills, and all sorts of exotic stress reduction devices in search of relief. Statisticians and physicians have also noted a sharp increase in cigarette smoking, alcoholism, and drug abuse. As one psychiatrist noted, "in the past five years, there has been a very important increase in the problem of stress, and we continue to see a steady increase in stress crises". Almost 15 percent of outpatients at one Mexico City clinic show symptoms of severe stress, usually related to the capital's tremendous problems of overcrowding and air pollution.

Most of the problem is due to the rapid sociocultural changes associated with urbanization and modernization, as Mexico attempts to compete in free standing trade pacts with the United States and Canada. One physician, who has spent six years treating stress related disorders at Hewlett Packard of Mexico, explained that formerly, "if you had a job, you knew that you had it for centuries and centuries, amen. Now from

the executives down to the clerks, people know their jobs are tied to their productivity". Another, who answers emergency calls at a government sponsored stress hot line, also indicates a pervasive concern that borders on hysteria about job security. Such fears are not groundless, since hundreds of thousands of workers have recently lost their jobs because of cost cutting moves as Mexico has increasingly encouraged foreign and private investment. Fierce competition has closed many businesses previously viewed as permanent and invulnerable. The average Mexican's buying power has also been sharply curtailed by wage controls and inflation, and authorities believe the problem will get much worse over the next few years as these trends continue.

San Jose Mercury News, July 28, 1992

"Poor Mexico, so far from God and so close to the United States."

Porfirio Diaz

Hostility Helps Heart Attack Recovery

Individuals who rate high with respect to hostility, suppressed anger and aggressive behavior seem to have higher mortality rates from heart attacks. However, a recent report suggests that they actually have a better chance of recovering if they do suffer a heart attack. One hundred sixty heart attack or coronary bypass patients, who had entered an exercise rehabilitation program were evaluated for both hostility and depression. It was found that those who were the meanest, were much more likely to improve and live longer, while just the opposite was noted in patients who were depressed.

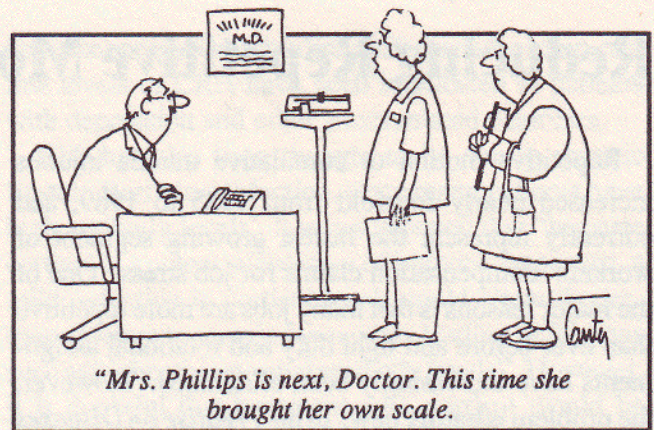
These findings are not as paradoxical as they might seem. There is a high correlation between hostility and Type A coronary prone behavior. Prior reports have also shown that although Type A's have higher heart attack rates than Type B's, they are less likely to have recurrent infarctions. Another possibility is that such patients may be more aggressive and therefore tend to work harder to get results once they get involved in the program. Unfortunately, the evaluation technique used in this study was rather crude, since patients were sorted out by responses to rather vague questions, such as, "do you get angry easily?" or "do you feel blue?" Well validated questionnaires, such as the State-Trait Anger Inventory or the Cook-Medley Hostility Scale, would have made the findings more significant.

Physicians Financial News, June 15, 1992

New Light On Eating Disorders

A variety of very different emotional disorders appear to be mediated by similar mechanisms and pathways. Support for this comes from the observation that the same medication may be effective in seemingly unrelated conditions. In some instances, the same abnormalities in brain neurotransmitters seem to be involved, particularly with respect to serotonin and melatonin. Anti-depressant drugs which act at serotonergic receptor sites may be effective not only in depression, but also chronic pain, eating disorders such as anorexia and bulimia, as well as Premenstrual Syndrome, Seasonal Affective Disorder, and other rhythmic disturbances.

Seasonal Affective Disorder (SAD Syndrome) sufferers may be significantly benefited by increased exposure to ultraviolet light during the winter months when there is less daylight. Since there is some suggestion that bulimia may also become more severe during the winter, Canadian researchers decided to study the effect of increased exposure to light in bulimia patients during winter months. Fourteen bulimics were evaluated for 2 weeks with respect to mood patterns and eating behaviors. This was followed by two 14 day periods of daily early morning light therapy. During the first, they were exposed to a half hour of 10,000 lux



white fluorescent light, and during the 2nd, a half hour of 500 lux red fluorescent light. It was found that "the bright white light reduced the incidence of binge-purge episodes by 43%, and the dim red light by 12%".

These findings strongly suggest that melatonin as well as serotonin is involved in bulimia. They also reinforce growing evidence that subtle energies can have important biological affects by influencing or mimicking the activities of naturally occurring brain neurotransmitters. It is not clear whether the benefits of light therapy are limited only to bulimics who demonstrate seasonal changes in their eating habits, or whether greater exposure to light might increase the degree of improvement noted. More extensive and comprehensive clinical trials are needed to resolve these and other issues raised by this interesting report.

Medical Tribune, May 21, 1992

Aromatherapy: The New Stress Buster?

As noted previously, aromatherapy is popular in Japan, where it is used as a sort of olfactory Muzak to soothe the jangled nerves of workers. The powerful effect of aromas on feelings has been known since Delilah used scented oils to woo Sampson, and Romans put them on wings of pigeons before setting them loose at large public celebrations. Pheromones, which are very subtle scents, provide powerful sexual stimuli in the animal kingdom, and have recently attracted the attention of perfume manufacturers. According to a recent book, "rosemary oil can stimulate body and mind when a person is overworked.....sage or juniper berry oils help relieve tension and lift your spirits.....a relaxing blend of two drops of geranium, lavender, and sandalwood oils and one drop of ylang ylang oil, can be used in a bath, a massage, or in a vaporizer, for stress reduction". For "relief from sudden stress", you can also try inhaling from a tissue with a few drops of lavender oil.

A Miami hotel has now installed a 12 thousand dollar machine that releases floral and citrus "natural plant abstracts" in the lobby via its central air conditioner. After fooling around with combinations of more than 200 distinct scents, a floral/citrus blend was finally selected to appeal to the hotel's Central and South American guests. Pure citrus was rejected because it gave the feeling of being deep in the middle of an orange grove, and musk was "very earthy, but too strong". According to the consulting company that recommended this approach, "the desired effect is to alleviate stress". However, although many guests commented on the pleasant smell, no therapeutic benefits have been reported to date.

The Wall Street Journal, July 28, 1992

Executive Edge, October, 1991

"Every man likes the smell of his own farts."

Icelandic proverb collected by Louis Kronenberger

Reducing Repetitive Motion Injuries

Repetitive motion or cumulative trauma injuries increased nearly fourfold from 1985 to 1989, and currently represent the fastest growing segment of workers' compensation claims for job stress. One of the major reasons is that many jobs are more repetitive than ever before and light duty and rotational assignments have increasingly been eliminated. However, the problem is hardly new. In his *Treatise on Diseases of Workers* in 1700, the Italian physician, Ramazzini referred to the "harvest of diseases" that affect workers because of "certain violent and irregular motions and unnatural postures of the body". One hundred years ago, *Gray's Anatomy* described a "sausage-shaped swelling" of the hand, characterized as "washerwoman's sprain". Today, we have "pricer's palsy" in store clerks, "Nintendonitis" in video game addicts, and "pickle-pusher's thumb" in workers at food processing plants where the last pickle has to go in the jar manually. Although the names are different, most of the injuries come under the heading of "carpal tunnel syndrome" or some other form of tendinitis".

Meat packing industry workers have about 12 times more of these cumulative-trauma injuries than any other group, prompting the Occupational Safety and Health Administration (OSHA) to publish its *Ergonomics Program Management Guidelines for Meatpacking Plants* last year. As the director of its enforcement division noted, "in some plants we went into, nearly 80 percent of the people had cumulative trauma". Some types of automotive workers and computer operators are also high on the list, and OSHA will shortly be releasing ergonomic guidelines for these groups. All sorts of enhancements have been suggested to reduce long term typing problems. One model, the TONY!, splits a keyboard in half to allow the sides to be rotated, or even angled upward into an A shape to accommodate the typist's hands. Another approach is the AccuKey, which has four keys for either hand, each of which can be manipulated into one of three positions.

However, much more research is required to learn how to prevent or minimize these injuries. One of the country's largest underwriters of workmen's compensation insurance has recruited about 30 women to spend a month, doing nothing but flexing their hands on a handgrip every 4 seconds for 7 hours, to learn how

data entry clerks can "work as hard as you can without going home at night with a sore hand". In an attempt to understand the nature and degree of wrist and hand stress, researchers videotape active workers, and then watch the tape in slow motion, noting various postures, as well as the number and types of repeated movements. They can also take measurements of force and vibration and monitor electrical activity at the surface of muscles with electromyographs to evaluate injury. Repetitive motion injuries are more frequent in workers who report higher stress levels, and a variety of stress reduction approaches may provide benefits. In the final analysis, the best solution may be prevention, by a encouraging return to rotating duties. As OSHA's chief ergonomist noted, "if somebody spends six hours putting cakes into wrappers, the company should find something else for that person to do for two hours".

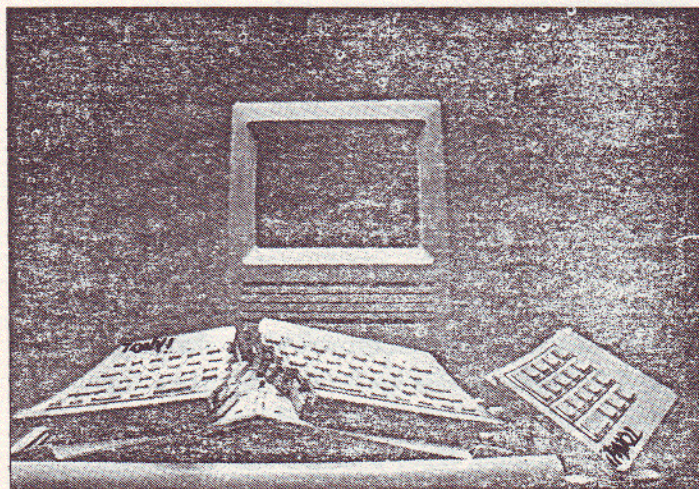
Scientific American, May, 1991

Who Gets Cumulative-Trauma Disorders

INDUSTRY	INCIDENCE*
Meat Packing	799
Motor vehicles	453
Shipbuilding and repair	242
Frozen bakery products (except bread)	219
Pens and mechanical pencils	206
Metal office furniture	195
Vacuum cleaners	177
Average for private sector	19

* Per 10,000 full-time workers, 1989

SOURCE: U.S. Bureau of Labor Statistics



Chronic Fatigue Syndrome and Stress

Chronic fatigue syndrome (CFS) is defined by the Centers for Disease Control as "debilitating fatigue lasting at least six months that cannot be attributed to any other disease process". Some patients have other symptoms, such as tender lymph glands, muscle and joint aches, sleep disturbances, depression, and difficulty concentrating. Patients who have a deficiency of stress related adrenal cortical hormones, like cortisol, frequently suffer from lethargy and fatigue. The neuroendocrine response to stress normally starts in the hypothalamus, which secretes corticotropin releasing hormone (CRH). This activates the pituitary to secrete adrenocorticotrophic hormone (ACTH) which, in turn stimulates the adrenal cortex to produce cortisol. A recent study of thirty patients who satisfied the criteria for CFS, confirmed that they had a deficiency in cortisol. Further studies which involved the administration of small doses of CRH or ACTH led to the conclusion that the basic problem was due to a defect in the ability of the hypothalamus to manufacture or secrete corticotropin releasing hormone (CRH). This is an important observation, since CRH also helps to

increase energy levels by direct effects on the brain, and low levels of CRH have been implicated in patients with depression and other stress related disorders.

CFS has also been thought to be due to chronic Epstein Barr virus infection, since many patients have high antibody levels. It was suggested that "because cortisol is a potent suppressor of immune responses, a mild reduction in cortisol levels could allow the immune system to remain overactive, leading to findings such as higher than normal antibody levels". However, it is doubtful that treatment with cortisol would be beneficial since it might signal the hypothalamus that the body is making enough cortisol, and this would further suppress CRH production. None of this research shows evidence of any damage to the endocrine system or the brain, but rather suggests that the problem is due to some hormonal imbalance or disturbance in CRH regulation in patients with Chronic Fatigue Syndrome. If this could be further clarified, then it could possibly lead to successful treatment strategy for this perplexing problem. CFS sufferers tend to be young adult women, but the condition can be found in people of all ages and races, and in both sexes.

Infectious Disease News, February, 1992

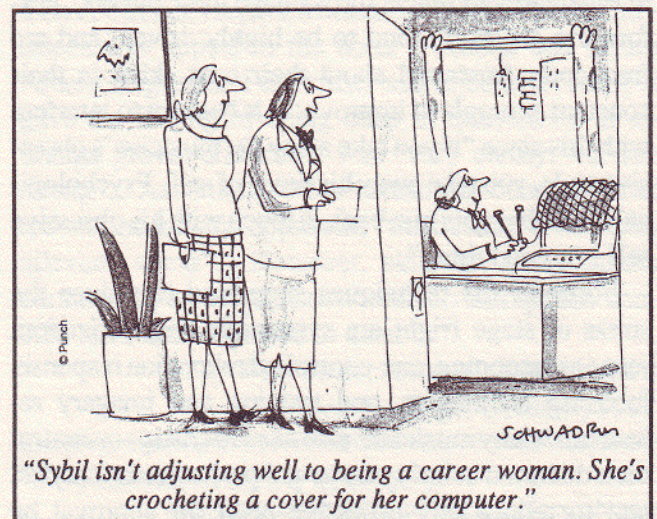
More on Health Benefits of Work For Women

German researchers report that working women have healthier lipid profiles than homemakers. In addition, quitting a job seems to be associated with lower levels of HDL or good cholesterol. They analyzed findings from physical exams of 1,337 homemakers and 961 women workers conducted in 1984-85, and again 1987-88. Total cholesterol averaged the same for both, but HDL levels were "higher for employed women than homemakers in each age group." These findings persisted even when adjusted for age, education, marital status, body mass, smoking, alcohol and coffee consumption, physical activity, number of pregnancies and hormonal therapy. HDL levels tend to be the same for both blue and white collar workers, although factory workers tended to be more obese and smoke more.

At the time of the second examination, 3 years later, 18% of the previously employed women had left the work force, and 14% of the homemakers had now joined it. The group who had quit their jobs showed a

decrease in HDL, or good cholesterol levels. No significant HDL changes were found in the new working women group, although the time interval may be too short to reflect this.

Medical World News, April 1991



For Musicians, The Best Key To Play In May Be Low Stress

Performing musicians are under a great deal of stress because of the constant scrutiny of orchestra conductors, managers, critics, and the public. Add to that, their own perfectionistic tendencies, irregular work schedules, frequent travel across time zones, and the need to deal with the diverse demands of other temperamental artists. Often, there may also be the depressive cloud of financial insecurity due to lack of work hanging over their heads.

According to one health professional at the Washington, D.C. Institute for Mental Health, musicians tend to develop "fight or flight" responses to stage fright when they perform and these have to be suppressed. "I see musicians eight hours after an audition, and they show signs of Post Traumatic Stress. Their hearts are pounding, just like former hostages or rape victims." They also spend much of their time in isolation, perfecting their craft, which may make it difficult for them to develop the social skills required to get along with 90 other orchestra members with similar problems.

Musicians are often stereotyped as being perfectionistic and over emotional, and unfortunately, many physicians have this perception when evaluating their symptoms and complaints. Others may subscribe to the classical psychoanalytic theory that the performing arts often serve as an outlet for the expression of neurosis, leading to further faulty attitudes about musician patients. In addition, musicians often avoid seeking medical attention until it's too late because they fear hearing the worst, or possibly being subjected to mistreatment that could damage their careers. Performing artists do tend to be highly driven, and are frequently frustrated about their own skills in their constant struggle to improve. It is best not to interfere with this since "if you take away the musician's obsessive style, you take away his sense of self. Psychological work that puts him back in touch with his obsessive self is a good thing".

Some of the techniques suggested to reduce the stress of stage fright are systematic desensitization, response stopping, cue-controlled relaxation response, focusing techniques, and training and imagery rehearsal. Many musicians also need to change or control their distorted belief systems and perfectionistic styles, and to reduce any excessive need for approval by

others. In the final analysis, however, the overall emphasis should be on prevention, and this is best accomplished by cognitive restructuring and correcting harmful misperceptions. For many, such stress reduction strategies provide the best key to achieve inner as well as musical harmony.

Internal Medicine and Cardiology News, April 15, 1992

"Music must take rank as the highest of the fine arts-as the one which, more than any other, ministers to human welfare."

Herbert Spencer

Detecting the Stress of Lying

Some people can lie convincingly and with a straight face while others demonstrate telltale signs that are dead giveaways. However, when it comes to detecting whether someone is or is not telling the truth there is also considerable variation. A recent experiment involved 500 subjects who reviewed videotapes of individuals who said they were enjoying a nature film they were watching. Half were lying, since they were actually viewing disturbingly violent movies at the time of their responses. The lie catchers rated each of the videotaped responses as either a truthful statement or a lie.

Prior reports had suggested that most people are not able to tell the truth from lies. This was confirmed in the present study, which revealed that judges, police officers, polygraphers, psychiatrists, and FBI, CIA, and Drug Enforcement Administration personnel showed no particular skill in correctly identifying liars. The most qualified group turned out to be U.S. Secret agents, more than half of whom were at least 70 per cent accurate. The overwhelming majority of these agents were men, but accuracy was not otherwise linked to either sex or age. It was suggested that Secret Service agents often interrogate contrite people and are seldom lied to. On the other hand, law enforcement officers may be so used to deceit, that they are ill prepared to identify those who tell the truth. The best lie detectors based their judgments on a combination of speech characteristics, facial expressions, and body language.

*The American Psychologist, Vol. 46:913-920,
New Sense Bulletin, February, 1992*

"It is hard to believe that a man is telling the truth when you know that you would lie if you were in his place."

H.L. Mencken

Testosterone, Stress and Marriage

Abnormally high levels of testosterone have been linked to very early sexual activity and drug use, as well as violent rape and other vicious crimes. Men who try to dominate social situations at work, play, or even in prison, also have high testosterone levels. Ministers tend to be on the low side, while actors and football players are frequently found at the top of the scale. Testosterone seems to encourage aggressive behavior, and in one report, particularly hostile and aggressive successful lawyers had correspondingly higher testosterone levels. There is other evidence of "a link between triumph and testosterone levels, which possibly could account for the momentum of a losing or winning streak." Testosterone levels in medical students were found to rise a few hours after their M.D. degrees were awarded, and conversely, fell in soldiers subjected to harassment during their initial training period at Officers' Candidate School. In one study of college men who competed head to head on non physical reaction tests, some were told they were winners and others that they had lost, even though these descriptions had nothing to do with their actual performance. Testosterone levels rose more and stayed higher longer in the alleged winners. Elevations were highest in those who felt they deserved to win, but were also significantly increased in others who attributed their success to luck.

While testosterone may facilitate gaining the upper hand in stressful situations, it appears to have negative effects on marriage. A study of almost 4,500 former Vietnam combat and non-combat veterans, revealed that those whose testosterone production was moderately above average were 50 percent less likely to marry than those who were moderately below average. In the group already married, those with above average levels were almost 50 percent more likely to divorce, 30 percent more apt to have spent time apart from their wives because they weren't getting along, had a 40 percent greater incidence of frequent extramarital sex, and were also more likely to have abused their wives.

Wall Street Journal, August 19, 1992

Executive Edge, December, 1991

New York Times, July 17, 1990

"Being a husband is a whole-time job. That is why so many husbands fail. They cannot give their entire attention to it."

Arnold Bennett

Stress Reduction Tape Makes Billboard

According to a recent *U.S. News & World Report*, Americans may be swapping their tranquilizers for "Heart Zones", a new compact disc. This special CD composed for stress reduction purposes is the first "designer music" ever to make the *Billboard* charts, and it has ranked in the top Adult Alternative albums for several weeks. According to its promoters, its New Age sound reduces stress by "activating high-end beta frequencies along with regenerating and centering frequencies.....and enhances digital and conceptual learning capacity with emotional synchronicity." Companion workshops and books also "keep gangs calm in Los Angeles", and allegedly are now being considered for Pentagon use. We have requested documentation of the brain wave claims, since it's always wise to remember Seneca's 2000 year old admonition that "part of the cure is the wish to be cured".

U.S. News & World Report 8/31-9/7, 1992

Crime Does Pay

A Los Angeles physician was found guilty in October, 1991 on 25 counts of insurance fraud, theft, tax evasion, and other crimes. Although he was in jail awaiting sentencing, he continued to collect \$266.00 a week from the State of California for a stress-related disability stemming from the investigation of his fraudulent and illegal activities. In filing his claim, he alleged that the stress suffered in 1989 when investigators searched his office and home had caused him to become mentally disabled. According to his lawyer, the 53 year old physician can legally receive checks, even if he is in prison, as long as another doctor says he is disabled. A California State attorney with over 20 years experience said that he knew of no other cases in which benefits were awarded to an individual disabled by stress as a result of government investigation or prosecution. A spokesperson for the agency involved said that their concern was only whether someone receiving benefits was disabled, and "that has nothing to do with whether or not that person goes to jail".

The State Board of Medical Quality Assurance has been considering whether to suspend or revoke the doctor's medical license. However, according to the Deputy District Attorney who prosecuted him, "What we have shown is that crime does pay. In fact, it pays \$266.00 a week".

American Medical News, 3/9/92

Book Reviews • Meetings and Items of Interest

Book Reviews

Frontiers of Stress Research, Weiner H., Florin I., Murison, R. and Hellhammwer (Eds.) Hogrefe Huber, Toronto, 1989 pp. 458 \$79.00 (USA)

Hans Selye's conceptualization of "stress" was based on studies of rats exposed to a variety of different, but very noxious stimuli. His original definition and hypotheses were based on the premise that stress represented the non-specific response of the organism to any demand for change. His theories rapidly attracted the interest of research scientists in other seemingly disparate disciplines and eventually clinical medicine, where the concept of non-specificity became increasingly difficult to defend. Selye had shown that by pre-treating his experimental animals via nutritional or hormonal interventions, stress could produce a microscopic pathologic picture similar to that seen in patients with nephrosclerosis, rheumatoid arthritis, myocardial infarction, etc. He postulated that stress was similarly involved in the pathogenesis of these disorders in humans, although critics quickly questioned the validity of this extrapolation as well as his concept of non-specificity. In recent years there has been increased interest in the role of stressful life events in the causation of disorders ranging from cardiovascular disease, mental illness, and diabetes, to colds, cancer and AIDS. Support comes from a variety of reports including studies of brain neuropeptide responses to stress, evidence that stress can lower immune system defenses, and research linking job stress with hypertension and heart disease. This volume, which represents the proceedings of a symposium in 1987, explores these and other issues that correctly fall under the title of "Frontiers of Stress Research". A wide range of clinical and research advances are covered in impressive fashion, and the presentations dealing with peptides are particularly valuable. The 31 chapters and 9 brief communications fall under the headings of conceptual, methodological and empirical advances, or some combination of these, as explained in an excellent introduction by the senior editor.

Meetings and Items of Interest

September 24 Mutual Assurance Inc. - The Impaired Physician, Perdido Hilton, Gulf Shores. Contact: Lisa Crawford, (205) 877-4430

September 30-October 3 American Academy of Clinical Psychiatrists - Biopsychosocial Issues and Their Impact on Psychiatric Practice: Overcoming Dilemmas in Clinical Practice, Hyatt on Union Square, San Francisco, CA (619) 298-0538

October 1-3 American Academy of Clinical Psychiatrists - Clinical Issues in Psychiatry, Hyatt on Union Square, San Francisco, CA (619) 298-0538

October 9-10 Tufts University School of Medicine - 10th Annual Psychopharmacology Symposium, Tremont House Hotel, Boston, MA. Info: (617) 956-6579

October 11-14 Hans Selye Symposia on Neuroendocrinology and Stress - CRF and Cytokines: Role in Stress Response, Hotel Radisson Gouverneurs, Montreal, Quebec, Canada Info: (310) 794-1958

October 21-25 American Academy of Child and Adolescent Psychiatry, Washington Hilton, Washington, D.C., (202) 966-7300

October 22-25 Society for Professional Well-Being National Conference - The Personal Basis of Care for Others, at the Hyatt at Fisherman's Wharf, San Francisco, CA Contact: Marjorie Harrison 1-800-473-5880

October 29-November 1 Annual Meeting of the Academy of Psychosomatic Medicine. San Diego, CA (312) 784-2025

November 19-22 The American Psychological Association and the National Institute for Occupational Safety and Health - Stress in the 90's: A Changing Workforce in a Changing Workplace, Washington, D.C., Hyatt Regency on Capitol Hill, Info: (202) 336-6033

December 9-12 The National Institute for the Clinical Application of Behavioral Medicine - 4th International Conference: The Psychology of Health, Immunity and Disease, Hilton Head, South Carolina, Info: (203) 429-2238

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