

The Newsletter of THE AMERICAN INSTITUTE OF STRESS

Number 12

1990

3rd International Congress on Stress Montreux, Switzerland, February 17-20, 1991

The Third International Congress on Stress will feature state-of-the-art presentations on Stress and Cardiovascular Disease; Stress, Emotions and Health; Mechanisms Mediating the Salubrious Benefits of Social Support Systems and Positive Emotions; Biobehavioral Effects of Electromagnetic Energy: (Clinical Results in Insomnia, Depression, Addictive Disorders, etc.), Stress, Immune System Function and Cancer, Job Stress: (Causes, Health Effects, Medico-legal Implications, Remedies) and much much more. A distinguished and truly international faculty. This meeting has been expanded to provide papers and interactive discussion sessions in the morning, with a variety of interesting workshops in the afternoon. Unbelievably attractive rates for registrants and traveling companions at the elegant Five Star Hotel Excelsior with its spectacular views of the French and Swiss Alps, gourmet dining, swimming pool, beauty salon, massage parlor, sauna and world renowned Biotonus Clinic offering a variety of rejuvenation therapies. Special air fares available. A unique opportunity for shopping, skiing, sightseeing trips to nearby attractions, etc. Attendance is strictly limited and reservations should be made as early as possible to guarantee participation and educational credits. For further information, call (914) 963-1200 or FAX (914) 965-6267 or write to Conference Department, The American Institute of Stress, 124 Park Ave., Yonkers, NY 10703.

This issue of the Newsletter will feature highlights from THE SECOND INTERNATIONAL MONTREUX CONGRESS ON STRESS, November 19-22, 1989.

Stress, The Sympathetic Nervous System And Hypertension

Bjorn Folkow, M.D., was the recipient of The Hans Selye Award at the Second International Montreux Congress on Stress, November 19-22, 1989. Currently Emeritus Professor at the University of Goteborg, Dr. Folkow has published over 300 papers dealing with autonomic nervous system influences on cardiovascular function, with particular emphasis on the pathophysiology of

hypertension. He has made seminal contributions to our understanding of the complex relationships between stress, sympathetic nervous system activities, hypothalamic function, and other intricate neuroendocrine (continued on page 2)



Paul Rosch, M.D.; Bjorn Folkow, M.D., recipient of The Hans Selye Award; and Stewart Wolf, M.D., recipient of the First Award.

ALSO INCLUDED IN THIS ISSUE

Stress, Anxiety and Mitral Valve Prolapse	2
Cardiovascular Hyperreactivity and Heart Attacks	3
Stress Coping Strategies and Heart Disease	3
Cancer and Heart Attacks—	
Relationship to Personality and Stress.....	4
Psychophysiological Stress Assessment	4
Depression and Auditory Stimuli	5
Stress Reduction Effects of Restricted Environment	
Stimulation Therapy (REST)	5
Biobehavioral Effects of Electromagnetic Energy	5
Use of Electrosleep in Treating Stress-Related Disorders.....	6
Low Energy Emission Therapy in Insomnia and	
Stress-Related Disorders	6
Cancer Control with Electrotherapy	7
The Effect of Stress in Acute Combat Situations.....	7

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.

The Newsletter of THE AMERICAN INSTITUTE OF STRESS NEWSLETTER is published monthly by The American Institute of Stress. Subscription rates: \$35.00 annually. Copyright© 1987 by The American Institute of Stress. All rights reserved.

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

Paul J. Rosch, M.D., F.A.C.P.
 Editor-in-Chief

**Contributing Editors from The Board of Trustees of
 The American Institute of Stress**

Robert Ader, Ph.D., Rochester, NY
Herbert Benson, M.D., Boston, MA
Norman Cousins, Los Angeles, CA
Michael E. DeBakey, M.D., Houston, TX
Joel Elkes, M.D., Louisville, KY
John Laragh, M.D., New York, NY
James J. Lynch, Ph.D., Baltimore, MD
Kenneth R. Pelletier, Ph.D., M.D., Berkeley, CA
Ray H. Rosenman, M.D., Menlo Park, CA
Charles F. Stroebel, Ph.D., M.D., Hartford, CT
Alvin Toffler, New York, NY
Sue Thomas, RN, Ph.D., Baltimore, MD

Stress, The Sympathetic Nervous System and Hypertension (continued from page 1)

influences that contribute to blood pressure regulation and sustained hypertension. In his presentation, Dr. Folkow paid tribute to the pioneering achievements of Walter Cannon, Ivan Pavlov, Harold Wolff, Stewart Wolf, and Hans Selye who awakened our appreciation of the widespread emotional and physiologic effects of stress. He reviewed a variety of genetically programmed emotional behavior patterns to stress which occur in the animal kingdom and may also be seen in a modified form in man. These defense responses, which may be of particular relevance in hypertension, include "freezing," ("playing dead" or "playing possum"), and the "defeat reaction" characterized by the submissive behavior seen in defeated male contenders for territory or mates. Such ancient overt response patterns protected the species from environmental threats and dangers and were perhaps appropriate for our primitive hunter-gatherer existence. However, humans have increasingly learned to voluntarily "mask" outward or external behavioral responses for social reasons. This includes not only suppression of anger and hate in cases of repressed hostility, but also extreme joy, as in the high stake poker player with a Royal Flush. Nevertheless, "inward" or internal visceral and neurohumoral adjustments cannot be suppressed once an emotion is elicited, and such repeated enforced disassociations may have harmful consequences.

Dr. Folkow also reviewed the relationships between increased sympathetic activity and sustained hypertension from a historical perspective,

emphasizing the contributions from animal studies. Of particular value are the numerous research findings from strains of spontaneous hypertensive rate. These have provided important insights into how stressful stimuli contribute to hypertension by influencing central hyperactivity at the limbic-hypothalamic level. This line of research also illustrates and emphasizes the multifactoral nature of essential hypertension and the diverse ways in which psychosocial influences can affect cardiovascular reactivity and the development of sustained hypertension. These themes will be further developed in our forthcoming Congress by Dr. Folkow and expanded upon by Dr. James P. Henry.

"There is something fascinating about science. One gets such a wholesale return of conjecture out of such a trifling investment of fact."
 Mark Twain

Stress, Anxiety and Mitral Valve Prolapse

Ray Rosenman, M.D., Chairman of the session on Stress and Cardiovascular Disease, reviewed the intriguing relationships between mitral valve prolapse (MVP) and various stress-related states. MVP refers to an upward invagination of valve leaflets during systole and can have a variety of causes. Mitral Valve Prolapse Syndrome, (MVPS) describes anatomic leaflet displacement associated with a symptom complex due to autonomic dysfunction. MVP is common in females and patients with anxiety disturbances, and both conditions start to manifest themselves in late adolescence. Mitral valve prolapse is particularly high in panic disorder, but panic disorder patients per se have normal cardiovascular responses, in contrast to those with MVPS.

MVP tends to be more prominent in slender individuals with relatively low weight for height, thin chests and straight backs, and thus is seen with particular frequency in ballet dancers and male basketball players. These physical characteristics promote an orthostatic decrease in left ventricular cavity size, contributing to an increase in leaflet prolapse and a stimulation of sympathetic activity. This may result in rapid pulse, palpitations, increased anxiety and a host of other adrenergic symptoms characteristic of MVPS. Another aggravating factor may be sodium depletion which can also contribute to fatigue, cold hands, "skipped" heartbeats and other signs and symptoms associated with MVPS.

Many young females chronically restrict salt intake and/or take diuretics to prevent fluid retention and keep their weight down.

This further decreases blood volume and thus stimulates sympathetic nervous system activity

and the secretion of adrenalin. In some instances, simply repleting salt markedly reduces or eliminates the mid-systolic click of mitral valve prolapse in addition to its associated hyperadrenergic symptoms.

"How wearisome the possessed mortal whose balance is lost by the exaggeration of a single topic."

— Ralph Waldo Emerson

Cardiovascular Hyperreactivity And Heart Attacks

The determination of causative or relevant risk factors can be complicated. A variety of considerations enter into the equation, including the strength of the relationship, the "dose-response" curve, temporal sequence, consistency of observation and independent predictive capacity. The significance of hypertension as a risk factor for atherosclerosis and/or coronary heart disease is quite controversial. It has been postulated that repeated blood pressure elevations could lead to endothelial injury and accelerate the development of atherosclerosis. At issue is whether or not repeated exaggerated cardiovascular responses to stress predispose either to sustained hypertension and/or accelerated atherosclerosis. Standardized laboratory tests suggest that cardiovascular reactivity is a fairly stable individual variable, which allows classification into high and low reactors. However, these profiles do not necessarily correlate with increased blood pressure responses to stressful events during daily life activities. In addition, increased cardiovascular reactivity tends to be more prevalent in situations which are also associated with elevated risk for coronary heart disease, such as male gender, family history of hypertension, borderline hypertension, ischemic heart disease, Type A behavior, increased anger, hostility behaviors, etc. Therefore, it may be that cardiovascular reactivity tendencies are dictated by a variety of other underlying genetic as well as behavioral factors. These considerations were thoroughly discussed by Dr. Thomas Schmidt and will be explored in greater depth at the special session devoted to the Clinical Significance of Stress Related Cardiovascular Reactivity at the Third International Montreux Congress on Stress.

"It is a sin to think evil of others, but it is seldom a mistake."

H.L. Mencken

Stress Coping Strategies And Heart Disease

The relationship between anger and its expression, hostility, and other Type A behavior traits to coronary heart disease has been a controversial subject in recent years. Dr. Stan Maes of Tilbourg University, The Netherlands reported the results of his study using a modification of Spielberger's Anger Expression Scale in cardiac patients undergoing a rehabilitation program. Systolic and diastolic blood pressure before and after six rehabilitative sessions consisting mostly of exercise were measured. A modification of Spielberger's Anger Expression scale was utilized to identify anger-in (AI), anger-out (AO), controlled anger-in (CAI), and controlled anger-out (CAO). Respective illustrative examples are:

When I'm angry, it's much more than other people can see (Anger In), I say unkind things to other people (Anger Out). I try to cool off as soon as possible (Controlled Anger-In). I keep my anger under control (Controlled Anger-Out)

There was no substantial evidence to support the hypothesis that people who are frequently angry, hold their anger in or cannot reduce their levels of anger easily, have higher levels of mean blood pressure.

In another study, a coping scale for patients with coronary heart disease was constructed, measuring approach and avoidness strategies in three different problem situations, i.e. medical, psychological, and social confrontations. Ratings were also made of stress, anxiety, depression, anger, well being, etc. Approach strategies correlated positively with stress outcome measures, and avoidance had a negative correlation. Approach strategies also had positive correlations with other health measures such as physician visits, amount of medication taken, absenteeism, number of health complaints, etc. Both of these research studies demonstrate that coping and control are vital but frequently neglected variables when evaluating the effects of stress on health. Furthermore, they graphically illustrate that adequate assessment of such psychological variables is equally as important as the measurement of any biomedical effects.

"We have just enough religion to make us hate, but not enough to make us love one another."

— Jonathan Swift

Cancer and Heart Attacks— Relationship to Personality And Stress

Drs. Hans Eysenck and Rudolf Grossarth-Maticek provided an update on their long-term ongoing research demonstrating an extraordinary ability to predict mortality from cancer and heart attacks on the basis of personality and stress-coping styles. This research supports the contention that Type A personality traits such as anger and aggression appear to be particularly predictive of coronary heart disease. Cancer-prone patients are usually "appeasing, unassertive, overcooperative, over patient, harmony seeking, conflict avoiding, compliant, and defensive." Two of their most common characteristics are: 1) suppression of emotional expression and denial of strong emotional reaction, and 2) failure to cope successfully with the stress and the reaction of giving up, linked with feelings of hopelessness and helplessness. These prospective studies were designed to overcome the possibility that cancer might have caused the differences in personality rather than that personality and stress were risk factors for cancer.

The basis of this long-term prospective research, utilized an especially designed questionnaire to separate four main categories of personality and stress-coping styles.

Type 1 individuals exhibit the cancer-prone characteristics noted above, and are characterized by *understimulation*. They tend to regard an emotionally highly valued object as the most important condition for their well being and happiness and are under great stress if they fail to achieve nearness to this goal.

Type 2 individuals tend to exhibit *overarousal*, anger, and aggression. They usually persistently regard an emotionally highly important object as the most important cause for their particular distress and unhappiness, particularly if this is another individual. Rejection or failure to achieve disengagement from the object causes them to become more dependent on it.

Type 3 individuals are characterized by ambivalence to highly valued objects and alternate between feelings of hopelessness-helplessness and anger-aggression. They are relatively free from both cancer and heart attacks.

Type 4 individuals consider their own autonomy as the most important condition for their well being and happiness rather than some other object. They tend to have the best health records.

Of particular interest was the finding that appropriate stress-reduction strategies and interventions in Type 1 and Type 2 individuals resulted in a 50

percent reduction in anticipated mortality rates. These findings will be updated by Dr. Eysenck at the forthcoming Third International Montreux Congress on Stress.

Psychophysiological Stress Assessment

Although many researchers and clinicians believe that individual psychophysiological responses to stress explain clinical stress symptomatology, there's little convincing research data to support this. Considerable attention has been devoted to the significance of different patterns of psychophysiological responses, but no consistent predictive results have been achieved. This might be expected because of the multiplicity of interacting and uncontrollable variables.

Dr. Lyle Miller, Director of The Biobehavioral Institute, in Boston, reviewed his program for psychophysiological stress assessment, and its use to improve clinical diagnosis. This is particularly important in patients who are referred for "stress-related disorders," to determine whether the basic problem is truly stress related. Dr. Miller described in detail his diagnostic technique which consists of a three-minute assessment of muscular, cardiovascular, and electrodermal activity during a sequence of relaxation, stress and recovery periods. Data were presented to corroborate the prescriptive diagnostic utility of this procedure for a variety of stress-related muscular, cardiovascular and dermatologic complaints. A more extensive workshop detailing and demonstrating this approach will be presented by Dr. Miller at the forthcoming Third International Montreux Congress on Stress.

International Society for the Study of Subtle Energies and Energy Medicine

The newly formed International Society for the Study of Subtle Energies and Energy Medicine (ISSSEEM) is concerned with the study of informational systems and energies that interact with the human psyche and physiology, either enhancing or perturbing healthy homeostasis.

The Society was organized by clinical psychologist Carol Schneider, biomedical engineer T.M. Srinivasan, anthropologist Stephan Schwartz, and psychophysiology researcher Elmer Green. It publishes a quarterly newsletter and a journal and over 1500 individuals have joined since its formation in December of 1989. An annual meeting will be held in Colorado from June 21-23 with workshops on June 24 and 25.

Further information concerning ISSSEEM's goals and objectives is available by writing to: C. Penny Hiernu, Executive Director, ISSSEEM, 356 Goldco Circle, Golden, CO 80401 or you may call (303) 278-2228.

Biobehavioral Effects of Electromagnetic Energy

(continued from page 5)

- 1) Effects on normal and abnormal growth as evidenced by the therapeutic responses to ionic fields in bone repair, wound healing and correction of dermatoses.
- 2) Effects on fetal development and carcinogenesis as suggested by reports of an increased incidence of malignancy and other problems in children whose mothers used electric blankets during pregnancy. Combined exposure to electromagnetic fields and chemical carcinogens may result in a synergistic effect. On the other hand, as Dr. Nordenstrom has demonstrated, weak electrical energies can be utilized for the successful treatment of various malignancies.
- 3) Effects on Central Neuroregulatory Mechanisms, including Circadian and other Biorhythms. Of particular interest is the effect of low level electrical energy on mood, behavior, pain perception, and its clinical applications for the treatment of insomnia, anxiety, depression, withdrawal from substance abuse and other stress-related states. Examples of this were included in subsequent presentations and will be further explored at the Third Montreux International Congress on Stress.

"Men do not quit playing because they grow old; they grow old because they quit playing." Oliver Wendell Holmes

Use of Electrosleep in Treating Stress-Related Disorders

The term "electrosleep" was first used in 1902 to denote a state produced by the action of interrupted galvanic current to the brain, using bitemporal electrodes. Although the effect achieved did not really resemble normal sleep, refinements developed 50 years later by psychiatrists in the U.S.S.R. did produce a method for the application of pulsed current to the brain resulting in a state of relaxation physiologically similar to natural sleep. A variety of investigations suggest that during electrosleep there is evidence of diffuse inhibition of the cerebral cortex. Electrosleep therapy has been used successfully in Russia and Europe for the treatment of anxiety, insomnia, hypertension, asthma, tension headaches, muscle spasms, migraine, low back pain, and peptic ulcer. Other reports claim benefits in patients with rheumatoid arthritis and other connective tissue disturbances, especially when associated with psychosomatic complaints. A fairly

consistent EEG finding is an increase in alpha and/or theta rhythms consistent with those achieved by practiced meditators. Dr. Michael T. Haslam reported on the results of a series of 80 patients treated with electrosleep using the Somlec device at Clifton Hospital, York, England, over the past ten years. Their problems included anxiety, depression, phobias, insomnia, headache, hypertension, and a variety of other stress-related complaints. Average age was 40 and most had ten treatments, with a range from four to twenty. More than half the patients had excellent to very good responses, particularly those suffering from anxiety and insomnia. The treatment is simple to apply, has no adverse side effects, and has proven quite safe in this and other studies. The beneficial results achieved in these patients were particularly impressive since most had been unresponsive to conventional therapy with hypnotics and benzodiazepines.

"Every man takes the limits of his own field of vision for the limits of the world." Arthur Schopenhauer

Low Energy Emission Therapy In Insomnia and Stress-Related Disorders

Dr. Niels Kuster of The Swiss Institute of Technology in Zurich and Dr. Boris Pasche provided a follow-up on clinical trials with the Symtonic device. Several improved refinements have been made and it has been found that battery powered instruments achieve effects superior to those obtained using a transformer. Recently completed double blind studies at the Sleep Disorder Center of the Scripps Clinic and Research Foundation confirm prior reports of significant improvement in insomnia as measured by sleep efficiency, total sleep time, and sleep latency. Thirty patients with chronic insomnia, confirmed by polysomnography, received either placebo or active treatment consisting of low intensity radio frequency electromagnetic fields emitted through an antenna placed in the mouth for twenty minutes, three times a week for four weeks. Since no appreciable sensation is experienced during treatment, a placebo effect can be excluded.

Sophisticated computerized EEG studies show a pattern of activity almost identical to that seen with benzodiazepine hypnotics. Unlike these drugs, however, there are no disturbing side effects or tendencies to develop tolerance or addiction. Benefits are achieved promptly and are sustained for several weeks after the initiation of treatment. A reduction in blood pressure has also been observed and possible clinical applications are also being explored. The use of cranial electric stimu-

Biobehavioral Effects of Electromagnetic Energy

(continued from page 5)

- 1) Effects on normal and abnormal growth as evidenced by the therapeutic responses to ionic fields in bone repair, wound healing and correction of dermatoses.
- 2) Effects on fetal development and carcinogenesis as suggested by reports of an increased incidence of malignancy and other problems in children whose mothers used electric blankets during pregnancy. Combined exposure to electromagnetic fields and chemical carcinogens may result in a synergistic effect. On the other hand, as Dr. Nordenstrom has demonstrated, weak electrical energies can be utilized for the successful treatment of various malignancies.
- 3) Effects on Central Neuroregulatory Mechanisms, including Circadian and other Biorhythms. Of particular interest is the effect of low level electrical energy on mood, behavior, pain perception, and its clinical applications for the treatment of insomnia, anxiety, depression, withdrawal from substance abuse and other stress-related states. Examples of this were included in subsequent presentations and will be further explored at the Third Montreux International Congress on Stress.

"Men do not quit playing because they grow old; they grow old because they quit playing."
Oliver Wendell Holmes

Use of Electrosleep in Treating Stress-Related Disorders

The term "electrosleep" was first used in 1902 to denote a state produced by the action of interrupted galvanic current to the brain, using bitemporal electrodes. Although the effect achieved did not really resemble normal sleep, refinements developed 50 years later by psychiatrists in the U.S.S.R. did produce a method for the application of pulsed current to the brain resulting in a state of relaxation physiologically similar to natural sleep. A variety of investigations suggest that during electrosleep there is evidence of diffuse inhibition of the cerebral cortex. Electrosleep therapy has been used successfully in Russia and Europe for the treatment of anxiety, insomnia, hypertension, asthma, tension headaches, muscle spasms, migraine, low back pain, and peptic ulcer. Other reports claim benefits in patients with rheumatoid arthritis and other connective tissue disturbances, especially when associated with psychosomatic complaints. A fairly

consistent EEG finding is an increase in alpha and/or theta rhythms consistent with those achieved by practiced meditators. Dr. Michael T. Haslam reported on the results of a series of 80 patients treated with electrosleep using the Somlec device at Clifton Hospital, York, England, over the past ten years. Their problems included anxiety, depression, phobias, insomnia, headache, hypertension, and a variety of other stress-related complaints. Average age was 40 and most had ten treatments, with a range from four to twenty. More than half the patients had excellent to very good responses, particularly those suffering from anxiety and insomnia. The treatment is simple to apply, has no adverse side effects, and has proven quite safe in this and other studies. The beneficial results achieved in these patients were particularly impressive since most had been unresponsive to conventional therapy with hypnotics and benzodiazepines.

"Every man takes the limits of his own field of vision for the limits of the world."
Arthur Schopenhauer

Low Energy Emission Therapy In Insomnia and Stress-Related Disorders

Dr. Niels Kuster of The Swiss Institute of Technology in Zurich and Dr. Boris Pasche provided a follow-up on clinical trials with the Symtonic device. Several improved refinements have been made and it has been found that battery powered instruments achieve effects superior to those obtained using a transformer. Recently completed double blind studies at the Sleep Disorder Center of the Scripps Clinic and Research Foundation confirm prior reports of significant improvement in insomnia as measured by sleep efficiency, total sleep time, and sleep latency. Thirty patients with chronic insomnia, confirmed by polysomnography, received either placebo or active treatment consisting of low intensity radio frequency electromagnetic fields emitted through an antenna placed in the mouth for twenty minutes, three times a week for four weeks. Since no appreciable sensation is experienced during treatment, a placebo effect can be excluded.

Sophisticated computerized EEG studies show a pattern of activity almost identical to that seen with benzodiazepine hypnotics. Unlike these drugs, however, there are no disturbing side effects or tendencies to develop tolerance or addiction. Benefits are achieved promptly and are sustained for several weeks after the initiation of treatment. A reduction in blood pressure has also been observed and possible clinical applications are also being explored. The use of cranial electric stimu-

lation for the treatment of drug addiction, substance abuse, and withdrawal syndromes were presented by Dr. Paul Rosch and Dr. Harold Stecker. Dr. Shealy and others also discussed their experience with the application of this treatment for depression, jet lag, disturbances in circadian rhythm and other stress-related states.

"Be not simply good; be good for something."

Henry David Thoreau

Cancer Control With Electrotherapy

Dr. Bjorn Nordenstrom provided an update on material presented at the previous conference, demonstrating that placing a positive electrode into malignant tissue causes it to accumulate electro-negative ions and to discharge electropositive ions into the surrounding tumor tissue. These changes are poorly tolerated by cancer cells which subsequently deteriorate and are destroyed. This approach represents another way of changing the micro-environment other than heat, cold, radiation, or the use of chemical compounds and has the same or superior lethal effect. Usually, a simple five to twenty volt direct current is delivered through the electrode for one to three hours. This is well tolerated by the patient, the only effect usually being a rise of one degree centigrade in body temperature for a day or two. It is also possible to utilize electro-positive anti-cancer agents such as adriamycin in a more effective and efficient fashion by introducing the chemical directly into the tumor, providing a concentration at the site of delivery thousands of times higher than could be achieved with conventional therapy and without any systemic side effects. About 80 patients have been treated, almost all of whom had failed to respond to or could not tolerate conventional therapy. Five patients with metastatic cancer were reviewed, all of whom are still quite well seven to ten years after having been treated only with direct current. In about 50 percent of all patients treated, there has been disappearance or at least temporary arrest of the treated tumor. This technique is inexpensive, causes no distress or danger to the patient, and is well tolerated. However, its optimal application and mode of delivery still remains to be determined, and is currently being intensively investigated.

"It is easier to fight for principles than live up to them."

Alfred Adler

The Effect of Stress In Acute Combat Situations

According to a recent article in *Military Review*, stress frequently exerts powerful influences on decision making in acute combat situations. In general, this is often manifested by a tendency for "self-induced stress to shape the meaning a decision-maker attaches to information received." It is most apt to occur when it is felt that there is not enough time or adequate resources to execute a desired policy. A case in point was the 1988 Vincennes incident, when an unidentified aircraft was erroneously thought to be accelerating in a descent pattern directly towards the ship. This was a crucial factor in the decision to fire on this unarmed aircraft carrying 297 civilians. Official reports now indicate that in the minutes before the firing was ordered, the information provided by the Tactical Information Coordinator regarding the speed of the descent of the unidentified aircraft was distorted, and that he was clearly not relating the details and data actually being displayed on his instruments. It was felt that this behavior was "induced by a combination of physiological fatigue and combat operations stress," both of which "can adversely affect performance and mission execution." In his own mind, the Tactical Information Coordinator had already concluded that the aircraft was a hostile Iranian F14 which was not acknowledging repeated warnings, and arbitrarily rejected data not consistent with this opinion. As a result, the Antiwarfare Officer informed the Captain that the identified aircraft had entered into an attack profile and was rapidly descending at increasing speed toward the ship, without any attempt to confirm the reports on his own. In point of fact, even a quick reference to his own instruments directly in front of him would have immediately shown increasing, not decreasing altitude. As the report noted, "this experienced and highly qualified officer, despite all his training, relied on the judgment of one or two Second Class Petty Officers," concluding that "stress is often associated with defective information processing — reducing the ability to 'see' the essential aspects of a situation at hand."

Military Review, October 1990

Cognitive Stress Training Workshop

Conducted by Dr. L.F. Colletti

Executive Vice President, Human Synergistics, Inc.

March 4-7, 1991 — Tampa, Florida

To register, contact Kathleen Wallace at Human Synergistics, Inc., at (313) 459-1030.

Book Reviews • Meetings and Items of Interest

Worksite Health Promotion, Scofield, M.E., Ed., Hanley and Belfus Inc., Philadelphia, PA, 1990, 875 pp, \$34.00.

This is another volume in the Occupational Medicine series offered by this publisher and consists of 16 chapters on various aspects of health promotion in the workplace. Considerable attention is devoted to problems associated with elderly workers, minority groups, employer responsibilities, legal concerns and other important issues usually not explored as thoroughly in other works of this nature. Particular emphasis is given to stress management with important facts and figures on the dimensions of the problem of job stress, its fiscal consequences, how to design effective stress management training programs, and evaluating the economic impact of worksite health promotion projects. Programs currently in place in U.S. corporations are reviewed, and future trends are discussed. As noted in the Editor's summary chapter, a very recent survey of business executives ranked stress as the leading health problem, followed by hypertension, cigarette smoking and low back complaints. Of the ten major problems, half, (stress, alcohol abuse, drug abuse, depression and mental health problems) concern emotional rather than physical aspects of health and can benefit from stress-management training. Most executives surveyed felt that the most severe threats to employee health and company productivity came from modifiable risk factors. It thus seems increasingly likely that future worksite health promotion efforts will increasingly emphasize stress management training, both to improve quality of life in the workplace, as well as bottom line benefits.

Meetings and Items of Interest

1991

Feb. 6-12, Harvard Medical School and Mind/Body Institute Clinical Training in Behavioral Medicine, Boston, MA (617) 432-1525.

Feb. 25-Mar. 1, Physician Heal Thyself, San Diego, CA, University of California School of Medicine. (619) 274-4630.

Feb. 26-Mar. 2, The Art and Science of Health Promotion, Hilton Head, SC, American Journal of Health Promotion, (313) 650-9600.

March 6-9, Association for Academic Psychiatry, Tampa, FL, (617) 499-5198.

March 6-10, Health Communication Research Inst. Mid-Year Health Communication Conference, Monterey, CA (916) 483-1583.

March 14-16, American Psychosomatic Society, Santa Fe, New Mexico, (703) 556-9222.

March 15-20, Assoc. for Applied Psychophysiology and Biofeedback, Dallas, TX (303) 422-8436.

March 17-23, American Holistic Medical Association, Breckenridge, CO, (919) 787-5181.

March 20-23, The Society of Behavioral Medicine Twelfth Annual Scientific Sessions, Washington, D.C., (800) 759-5800 or (615) 297-9200.

March 24, Harvard Medical School and Mind/Body Institute Mind Science: A Dialogue between East and West Cambridge, MA (617) 432-1525.

Apr. 1-5, North Carolina Society of Clinical Hypnosis, The California Edge: Psychological Interventions in the 90's. Hypnosis, Family Systems, Mind-Body Healing, Monterey, CA (415) 531-2000.

Apr. 4-5, Univ. of CA Work and Mental Health, San Francisco, CA (415) 476-5208.

Apr. 12, Psychiatry Update, Dalhousie University, Halifax, N.S., Canada (902) 494-1560.

April 15-19, American Society of Clinical Hypnosis, St. Louis, MO, (708) 297-3317.

Apr. 18, Ruth Fox Course for Addiction for Physicians, American Society of Addiction Medicine, Boston, MA (212) 206-6770.

Apr. 24, Day in Occupational Health, McMaster University, Hamilton, Ontario, Canada (406) 525-9140, Ext. 2219.

Apr. 25-28, Psychiatry, Psychology and Psychotherapy Topics, International Transactional Analysis Assoc., Inc., Stamford, CT (203) 322-1400.

May 11-16, American Psychiatric Association, New Orleans, LA, (202) 682-6100.

ISSN # 1047-2517

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

124 Park Ave., Yonkers, New York 10703

Non-Profit Organization
U.S. Postage
PAID
Yonkers, NY
Permit No. 400