The Newsletter of
THE AMERICAN INSTITUTE OF
STRESS

Number 6 1992

# More on Stress and Heart Attacks

Although mental stress has been identified as a risk factor for coronary heart disease, the mechanisms responsible for this have not been clearly delineated. Increased secretion of stress related hormones like adrenalin and noradrenalin can accelerate the development of atherosclerosis and hypertension, and in extreme cases, cause direct injury to heart muscle. Israeli researchers now suggest that "coagulation and platelet aggregation provide a possible physiological connection between stress and heart disease". A classical study 35 years ago, demonstrated that tax accountants had marked elevations of cholesterol as the income tax deadline approached, despite change in diet or daily activity. In this experiment, blood clotting measurements were evaluated in 30, healthy certified accountants, who had reported subjective feelings of stress shortly prior to income tax reporting deadline. They were studied during this period, and during another when their work load was low, and associated with self reported feelings of relaxation. Several coagulation factors involved in blood clotting were evaluated, with each patient serving as his own control.

While not all clotting factors showed marked changes, there were significant increases in thrombocyte count, mean levels of Coagulation factor VIII, and fibrinogen. As the researchers noted, "an increase in Factor VIII, fibrinogen and thrombocyte count could promote processes eventually liable to contribute to formation of atheromatous plaque as well as the appearance of an occluding clot at the acute stage of myocardial infarction". The primary author, a cardiologist, urged that more attention should be directed to the prophylactic administration of appropriate drugs in patients with coronary heart disease.

*Cardiology World News, June, 1992.*

## Childhood Poverty and Heart Disease

It has been noted that standard risk factors for coronary heart disease, such as cigarette smoking, high serum cholesterol and high blood pressure, "have very limited ability to predict disease in adults". Psychosocial factors such as financial and marital status appear to have important influences. However, it was noted that in Norway, although lifestyles and living standards are fairly uniform throughout the country, there are marked geographical differences in cardiovascular mortality. Epidemiologists have increasingly been exploring pos-

*Continued on page 2*

**ALSO INCLUDED IN THIS ISSUE**



*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
**Michael E. DeBakey, M.D.,** Houston, TX
**Joel Elkes, M.D.,** Louisville, KY
**Bob Hope,** Palm Springs, CA
**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.,** San Francisco, CA
**Charles F. Stroebel, Ph.D., M.D.,** Hartford, CT
**Alvin Toffler,** New York, NY
**Sue Thomas, RN, Ph.D.,** Baltimore, MD

*Continued from page 1*

sible childhood influences that might explain this.

A recent series of reviews of national statistics in the United Kingdom, the United States and Norway, did show that cardiovascular death rates correlated with certain indicators of early childhood deprivation, such as infant mortality and short stature. Records of over 5,000 men in England born between 1911 and 1932 also revealed that death rates for coronary heart disease were inversely related to weight at one year of age, and highest in those who weighed less than 5 1/2 pounds at birth. Such standard indicators of early deprivation were also associated with increased blood pressure, cholesterol, blood clotting tendencies, and diabetes, and decreased levels of good cholesterol.

Critics suggest that it is just not possible to extrapolate from large population studies in different geographical areas or time periods, and make meaningful conclusions similar to those from case controlled, follow up studies in specific individuals. Childhood deprivation has also been linked to an increase in deaths from many other causes, including respiratory disease and cancer. Thus, childhood poverty may not be specific for heart disease.

Other psychosocial factors also need to be taken into account. Some studies suggest that it is not simply childhood deprivation, but a persistence of this that may be important. In a British study of men brought up in the relatively deprived areas of northern England and Scotland, it was observed that those who subsequently moved to a higher standard of living environment in the south, had lower rates of coronary artery disease. In addition, although there had been a very substantial decline in infant mortality between 1900 and 1930, suggesting less childhood deprivation, there was no decreased incidence of coronary deaths in individuals born during that period.

There is general agreement about the relationship between adverse childhood influences and the subsequent development of coronary artery disease. However, the precise nature and timing of these is poorly understood, and may include such things as maternal diet, breast feeding, etc. The problem is further complicated by numerous psychosocial factors that play a role during adolescent development and early adult life. This is now being investigated in several large studies to determine whether or not changes should be made in public health policies with respect to maternal and infant nutrition, and other relevant childhood influences.

*Lancet, June 6, 1992*

*"If you've every really been poor, you remain poor at heart all your life."*
Arnold Bennett

## Check On That Chicken!

A 21 year old female who was vacationing in the Canary Islands, began to experience generalized itching and a rash shortly after finishing dinner. By the next morning these complaints had markedly worsened, her face and limbs were swollen, and she had difficulty swallowing. She consulted a local doctor, indicating that she had a similar problem in the past when she had been given penicillin. He immediately asked if she had chicken for dinner, which she confirmed, and diagnosed a penicillin reaction. She was treated with antihistamines and flown back to England, where she was hospitalized for three days.

Individuals allergic to penicillin can be sensitive to extremely small amounts. According to the British Embassy in Madrid, many poultry farmers from non-European countries who export chicken to the Canary Islands, use penicillin as a chicken feed additive.

*Drug Therapy, June, 1992*

## Reach Out and Blush Someone

As Mark Twain noted, "man is the only animal that blushes-or needs to". Some people know when they are blushing, because their face feels hot, and they may also experience a dry mouth, tremulousness, palpitations, other stress related responses like sweaty palms. Others may be relatively unaware that their faces are "beet red". Why some people blush at the slightest provocation, while others rarely exhibit this reaction, is not clear. It seems to occur equally in both sexes, although women seem much more apt to blush when talking about something personal. The skin is the largest organ in the body, and its psychological significance and importance as an intercommunicative link between ourselves and the outer world is obvious. Blushing is normally confined to the skin of the face and neck, where it can be seen by others, but cases have been reported where it has occurred elsewhere, and indeed over the entire body in one individual who was posing as a model.

From an evolutionary and teleologic view point, it would seem that blushing should serve some adaptive purpose. Since it usually occurs only in areas that can be seen by others, one possibility is that it might serve to influence social attitudes and attention. That seems to be supported by the creator of the Blushing Propensities Scale, who notes that "like lowering your eyes and smiling nervously, blushing is an involuntary, remedial display that serves to placate others and restore normal relations after a transgression". Most people tend to blush if they feel foolish or get caught in some shameful act. Usually this starts within ten seconds of being stared at, which usually has the desired result of making the gazer look away. It is unlikely that anyone blushes when they are alone or in the presence of good friends or those who have seen us act stupid many times before. Researchers studying the effects of talking on blood pressure, suggest that in some instances, hypertension may represent a form of internal blushing for some people who hide their feelings from others, especially when discussing personal matters.

*American Health, Jan.-Feb., 1992*

*"We never forgive those who make us blush."*
Jean-Francois de La Harpe

## Radar Speed Traps and Your Heart

Getting caught in a radar speed trap is stressful, but for some individuals, it could prove lethal. Swiss cardiologists recently reported on 22 patients undergoing ambulatory electrocardiogram monitoring as part of a diagnostic workup for intermittent episodes of rapid heart beat, and/or ventricular arrhythmia. None of the patients had evidence of other heart disease, or electrolyte disturbances that might have contributed to their problem, and were being studied to determine the possible need for drug therapy. Each of the 16 males and 6 females, average age 60, happened to run into a radar speed trap while their electrocardiograms were being recorded. The researchers found that the stress of being apprehended in the unexpected speed control area produced significant abnormalities in almost every patient. Although none lasted longer than 4 minutes, some of the findings were quite disturbing, and would have been dangerous if they had persisted for a longer period. Most patients had no symptoms, but in one, chest pain was severe enough to require the use of nitroglycerine. It might be argued that high speed driving itself may be stressful, but getting caught in a radar trap obviously added to this.

Sudden death, which is defined as death occurring within 24 hours after the onset of symptoms, is the leading cause of death throughout the world. It is usually due to ventricular fibrillation. In healthy individuals, stress is the leading cause of ventricular fibrillation. Studies of patients who died suddenly while undergoing ambulatory monitoring, often reveal that ventricular fibrillation is preceded by disturbances in rhythm similar to those seen in this report. In most instances, the patient is entirely aware of any problem, since there are no signals, such as, palpitations, dizziness or chest pain to indicate an impending disaster.

The risk of cardiac patients dying as a result of a car accident is probably greater than that due to a radar gun. However, this report confirms previous studies showing the effects of stress on the production of ventricular irritability and arrhythmias. The authors did not conclude that the potential risk of getting a speeding ticket warranted the use of prophylactic anti-arrhythmic drugs.

*Clinical Cardiology, June, 1992*

*"Pity me that the heart is slow to learn*
*What the swift mind beholds at every turn."*
Edna St. Vincent Millay

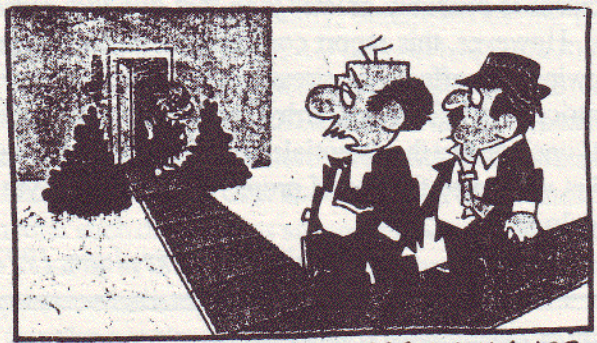
## Job Stress and Marital Tension

While some workers may carry problems at home into the workplace, the reverse appears to cause even greater difficulties. Researchers interviewed over 500 men and women to study possible relationships between marital strife or tension and job stress. All were married workers at a large pharmaceutical company, with the majority being white upper middle class professionals. Particular attention was directed to the relationship between workplace problems and quality of home life as assessed by several criteria. They initially had expected to find that the major complaint would be not having enough time for family affairs because of increased work demands. However, it turned out that it was not the amount of work, as much as various stresses associated with the job that caused most problems.

Workers whose jobs were characterized by high psychological demands and pressures, and who had an unsupportive boss, were the ones most likely to experience difficulties that spilled over into their home lives. They generally complained of chronic fatigue, and were often so irritable and preoccupied with problems at work that they paid little attention to their spouses or children. They also reported many more marital arguments. These often had nothing to do with their jobs, but ranged from finances and disciplining children, to how vacations and holidays should be spent. While working excessively longer hours does take time away from family activities and responsibilities, it does not appear to be as disruptive to family life as the distressful emotional effects resulting from high stress jobs.

*Journal of Marriage and the Family, Vol. 54, #1,*
*Psychology Today, August 1, 1992*

*"Marriage resembles a pair of shears , so joined that they can not be separated; often moving in opposite directions, yet always punishing anyone who comes between them."* Sydney Smith



"THERE'S A LOT OF STRESS ON MY JOB, BUT LORETTA HELPS ME OVERCOME IT BY PROVIDING EVEN MORE STRESS AT HOME."

## The Manganese-Madness Connection

There has been considerable conjecture about the clinical value of hair analysis. It can be useful to confirm toxic levels of heavy metals like lead, mercury, and arsenic. However, claims by commercial laboratories that measurements of numerous other elements can provide meaningful information about nutritional status, or diagnosing everything from kidney failure and thyroid disease to emotional problems are greeted with skepticism by most scientists. There is no general agreement on the normal ranges for most of these substances, results on the same specimen vary widely when submitted to different laboratories, and even when repeated at the same facility. However, since heavy metal toxicity can be associated with bizarre anti-social and emotional behaviors, it has been suggested that hair analysis measurements in criminals might reveal relevant abnormal findings. Metals do tend to accumulate and become concentrated in hair over a long time period, and high levels have been associated with brain lesions. In one such study, elevated levels of lead, cadmium and copper were reported.

In an attempt to confirm this finding, a California neuro-psychiatrist cut locks of hair from almost 200 rapists, murderers, armed robbers and other violent criminals incarcerated in a local prison. They were analyzed for levels of 23 different elements, and the results were compared with similar specimens obtained from prison guards and normal barber shop patrons over an eight year period of time. The results were unexpected and surprising. The only consistent significant difference between the two groups was that the average violent criminal had almost 5 times higher manganese levels, regardless of age, sex or race!

The significance of this is not clear. Manganese is a trace element that is essential for the operation of many basic enzyme systems in the body. Only minute amounts are required, and a deficiency state has not been described in humans. Excess manganese intake has been reported only in miners who inhale dust over along period of time. They may experience disturbances in central nervous system function, such as the development of Parkinsonian-like symptoms and mental disturbances that have been referred to as "manganese madness". However, it seems doubtful that abnormal

*Continued on page 5*

*Continued from page 4*

criminal behaviors are due to increased levels of manganese, per se. A more likely explanation, if these findings are confirmed, is that they reflect some association with an underlying metabolic abnormality in brain function. Positive emission tomography, and recently developed "fast M.R.I." technology have already demonstrated abnormalities in psychiatric patients, and correlations between certain emotions and thought processes with increased activity in specific areas of the brain. Such approaches may also be helpful in identifying abnormal metabolic brain activities in criminals, which could conceivably lead to new approaches for prevention and treatment.

*Discover, August, 1992*

## Stress, Poverty and Mental Illness

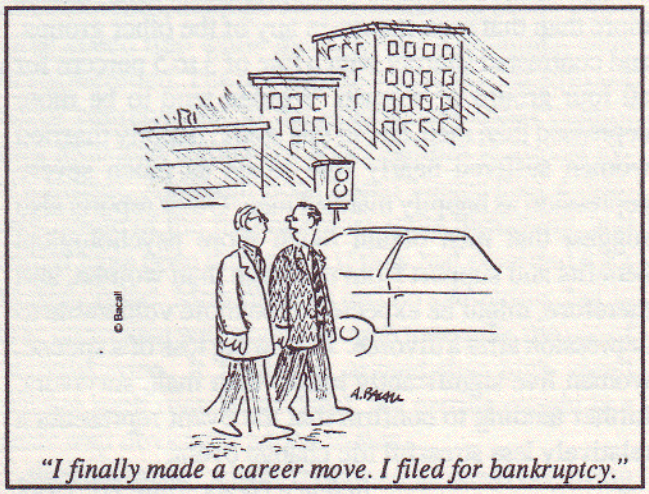
The relationship between poverty and mental illness is somewhat like the chicken and the egg. As far back as 1855, one epidemiologist reported that "the pauper class had 64 times the rate of insanity found in the independent class". While it is doubtful that those figures would hold today, it is evident that less advantaged and poor people do have higher rates of mental illness. The dilemma is whether genetically predisposed individuals have a greater likelihood of failing financially, or whether the stresses of poverty promote mental illness.

In a recent study of almost 5,000 young Israeli born adults, it could be shown that schizophrenia, which is believed to be a heritable disorder, tended to drive people to inferior environments with lower incomes. However, poor socioeconomic status appeared to be much more of a cause rather than the result of depression in females, and was associated with a higher incidence of other problems in males. All of the participants in the study were of either North African or European ancestry. However, those with North African roots tended to be poorer, less assimilated than others, and much more often the victims of prejudice.

Poorer individuals of European extraction had higher rates of schizophrenia, especially if they were not high school graduates, suggesting that their emotional problems might have interfered with their ability to succeed in life. Depression rates were higher among North Africans than European descendants, especially in women. North African men also had higher rates of "anti-social personality and substance abuse requiring help", although neither of these problems were found in college graduates of either group.

The important role of stress in depression has been well established, but the reason for the markedly increased incidence in females compared to males is not clear. In addition, much more needs to be learned about the different types of psychosocial and environmental stresses that exert the most important influences on emotional health. Apparently, being poor can drive you crazy, but being crazy can also make you poor depending on a host of factors.

*Science, November, 1991*
*New Sense Bulletin, April, 1992*




*"I finally made a career move. I filed for bankruptcy."*

*"To be poor and independent is very nearly an impossibility"* William Cobbett

## Police File Job Stress Claims For Los Angeles Beating

The savage beating of Rodney King, which was filmed on videotape by an amateur photographer, prompted widespread criticism of the Los Angeles Police Department last year, and calls for the resignation of the Chief of Police. Two of the officers who were indicted subsequently filed workers' compensation claims against the city. They were allegedly disabled because of job stress associated with the incident, and wanted tax free, stress related disability pensions. Another also submitted a note from his doctor indicating that he would be going on indefinite sick leave because of job stress. The nature of the disability is not clear, but those who have filed for retirement are claiming, "acute anxiety and stress".

*The New York Times, April 13, 1991*

# Feeling Blue? Lighten Up

The term "blue" has been used to describe sadness and depression in the English language since the 1500's. The reason for this is not clear, but might have something to do with the fact that chronically ill and depressed individuals often tend to have an ashen-blue pallor countenance that contrasts sharply with rosy or "healthy" cheeks. *Livor mortis* is the medical term used to describe a similar coloration of the skin after death. Both livor and livid derive from the Latin *lividus*, meaning "to be blue", as in the color of lead. *Blue Monday*, sometimes used to describe the depression associated with having to go back to work after a relaxing weekend, also refers to the Monday before Lent, which was usually spent in dissipation by workmen. *Blue Laws* sharply restrict the sale of liquor in some states, but the term was first used to describe severe puritanical laws enacted in New Haven around 1825.

One condition that cause the blues is "seasonal affective disorder", which has the appropriate acronym, SAD. It is seen in individuals who become depressed in the fall or winter because of diminished exposure to sunlight, especially in northern latitudes. These symptoms appear to be related to changes in melatonin secretion. Those afflicted can often be significantly improved by increasing their exposure to artificial ultraviolet light as the days become shorter. It is now believed that up to 6 percent of the U.S. population may be SAD sufferers, and more than 12 percent complain of some degree of "winter blues". In addition to depression, other SAD symptoms include fatigue, excessive sleepiness, a tendency to binge overeating, and weight gain.

The amount of light transmitted to the brain is determined by how much is let through the retina. It has been suggested that this may be significantly less in SAD sufferers. In one study, conducted during the winter, more than half of SAD patients had borderline or significantly lower responses compared to controls. Because of overlap, the differences are not sufficient to serve as a diagnostic measure, and there are significant differences between men and women. It is not known whether such distinctions are present only during winter months, or if they might actually be a result of the depression rather than its cause.

It is also not clear whether the color of the iris might affect the amount of light transmitted to the brain. Scandinavians who live in Northern climates where there is less annual daylight may be more apt to suffer from SAD than brown eyed Latins in Southern latitudes. One might even conjecture that having eyes that are "baby blue" could predispose to being in a "blue funk".

*American Psychiatric Association meeting, 5/6/92; Gannett Newspapers, 5/8/92.*

# Depression After Divorce: Who Gets It?

Divorce ranks close to the top of the Holmes-Rahe and other stress rating scales. In some situations, it can be a cataclysmic event, while in others, it might provide a welcome relief from a miserable marriage. In either instance, it usually causes major lifestyle changes. Depression rates after divorce are similar in both sexes, but men appear to be at much greater risk for developing severe depression for the first time.

695 women and 530 men were interviewed during the early 1980's, and again six months and one year later, as part of a national investigation of mental health. 708 reported happy, and 259 described unhappy marriages; and 208 had separated from or divorced their spouses before the study began. Twenty one percent of the women whose marriages broke up during the study period experienced severe depression. This rate was three times higher than that for happily married women, and twice that of unhappily married, and previously divorced or separated women. Almost 17 percent of the men who reported a marital split during the study, developed severe depression. This was nine times greater than that for happily married men, and about double that for men in the other two groups.

However, when those participants with a prior history of severe depression were excluded, 14 percent of the divorced men had severe depression. This was far more than that seen in men in any of the other groups, and contrasted sharply with a rate of 3 to 5 percent for all four groups of women. Women tend to be more depressed than men, and in this study, happily married women suffered nearly four times as much severe depression as happily married men. Other reports also suggest that men obtain much more psychological benefits and support from marriage than women, and therefore, might be expected to be more vulnerable to depression after a divorce. Following loss of a spouse, women live significantly longer than male survivors, further tending to confirm that the event represents a relatively less stressful life change event.

*Science News, June 20, 1992*

## Stress and Allergies

Two new fashionable sources of illness are "sick building syndrome" and "environmental allergies". Sufferers, particularly workers, are apt to experience a variety of presumed sensitivity or allergic reactions to environmental agents that cause irritation of the eyes and throat, dizziness, nausea, fatigue and other complaints for which no medical explanation can be found. Several reports suggest that such symptoms are apt to be more frequent and severe in individuals under greater amounts of stress, usually because of lack of control over their job situation and other factors. The reason for this is not clear, although it is well known that stress can aggravate or precipitate allergic responses in susceptible individuals.

People with proven allergies often have higher circulating levels of immunoglobulin (IgE), that correlate with more severe or more numerous reactions to pollens, dust, foods, and animals. In a recent study, IgE levels were determined in over 700 metal workers, who also completed a questionnaire devised to determine their health habits and stress levels. The results showed that those who perceived they were under more stress also tended to have higher IgE levels. There was also a correlation between higher IgE and physical exercise, duration of time at work or engaging in hobbies.


However, smoking, alcohol consumption, and a sense of constantly feeling busy, seemed to be associated with lower IgE measurements. Low IgE can reflect disruption of immune system function of the type associated with autoimmune disturbances such as rheumatoid arthritis and lupus, both of which can also be stress related. The incidence of both allergic and autoimmune disorders seems to be increasing, and it has been suggested that stress may be the common denominator.

*Townsend Letter for Doctors, May, 1992*
*Allergy, 1991 45:561-569*

# Working Women Healthier Than Housewives

Some reports have suggested that certain classes of working women are twice as likely to have heart attacks than homemakers. Women who own their own businesses and are in control, however, appear to have improved health records. Control appears to be the operative word, as it is in most other aspects of stress. It does seem clear that individuals who are in occupations where they perceive a great deal of responsibility, but little control or decision making latitude, have higher rates of heart attacks and hypertension. A recent study reported on women, aged 40 to 59, who were followed for approximately 25 years. Most had been employed as managers, administrators or secretaries. Researchers found that in general, the working women stayed healthier and had substantially lower cholesterols, blood sugars and blood pressures. Those at home tended to smoke, drink and eat more, but these differences did not appear great enough to explain the results noted. It was postulated that "the psychological benefits of job satisfaction and a sense of achievement may, like those attributed to religious beliefs, sustain health through still shadowy mechanisms". Concern has been voiced in the past that women may be endangering their health by being subjected to work place stress and the development of Type A Coronary Prone Behavior. This study suggests, otherwise, although it should be noted that for the subjects involved, work was an option for most rather than a pure necessity. It was suggested that women who work because they must, and therefore, are not in control, "may not show similar health benefits".

*American Journal of Public Health, February, 1992*
*New Sense Bulletin, February, 1992*

*"Work keeps us from three great evils, boredom, vice, and need."* Voltaire Francois Marie Arouet

# Book Reviews • Meetings and Items of Interest

## Book Reviews

### Bakel, Donald A., "Psychology and Health", Springer Publishing Co., New York, 1992, 243 pp., $29.95

The relationship between psychiatry and other branches of medicine has undergone a marked transition over the past two decades. Traditional psychoanalytic approaches to emotional disorders, emphasizing early childhood experiences, and lengthy sessions on the couch, have gradually given way to a psychobiological orientation that is increasingly exploring neurotransmitter abnormalities and brain-immune system communication pathways, to unravel the complex links between the mind and the body. Concomitant with this, is a change in our preoccupation with disease and illness to health and wellness goals. The World Health Organization has now defined health as "a state of physical, mental, and social well being, and not merely the absence of disease or infirmity". This book represents an up to date integration of various facets of this shifting paradigm, which attempts to integrate body and mind, by investigating biochemical correlates of emotion, and psychoimmunologic phenomena. Advances in these areas may explain such things as the placebo effect, therapeutic touch, the beneficial effects of positive emotions and strong social support on cancer prognosis, and the pathogenesis of various addictive and behavioral disorders. There is an excellent chapter on stress which traces the growth and development of the concept, outlines current controversies, and examines its practical implications. The chapter on pain is equally comprehensive in its multidisciplinary approach. This book is well written, and peppered with attractive diagrams and quotations from appropriate authorities. While primarily directed to health care professionals, it should be thoroughly comprehensible to lay individuals who wish to improve their understanding of the complex interfaces between emotions, health, and illness.

## Meetings and Items of Interest

**September 1-5** Fourth International Conference on Stress Management-Stress in Contemporary Living, Pierre et Marie Curie University, Paris, France. Contact: ISMA, 14 Cranleigh Avenue, Rottingdean, Brighton, BN2 7GT United Kingdom

**September 6-9** The Melanotropic Peptides, Rouen, France. Info: Conf. Dept., NY Academy of Sciences, 2 E. 63rd St., New York, NY 10021 (212) 838-0230

**September 11-12** Psychosocial Oncology-Enhancing Patient and Family Care, The Beverly Hilton, Beverly Hills, CA (310) 855-5486.

**September 14-18** XIIth International Conference on the Social Sciences and Medicine - Peebles, UK Contact: Dr. P J M McEwan, Glengarden, Ballaret, Aberdeenshire AB35 5UB United Kingdom

**September 15-18** Giovanni Lorenzini Medical Foundation - 2nd International Symposium on Serotonin, Houston, TX (713) 796-8853

**September 21-23** European School of Oncology - Cancer and the Immune System, San Servolo, Venice, Italy (39 2) 70635923

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

**December 9-12** The National Institute for the Clinical Application of Behavorial Medicine - 4th International Psychology of Health, Immunity and Disease Conference, Hilton Head, South Carolina. Contact: NICABM, PO Box 577, 46 King Hill Road, Storrs, CT 06268, (203) 429-2238

**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