# The Newsletter of THE AMERICAN INSTITUTE

Number 8 1994

#### SEVENTH INTERNATIONAL MONTREUX CONGRESS ON STRESS

February 19 -24, 1995 Grand Hôtel Excelsior, Montreux, Switzerland

Plenary Session on The Evolution of Global and Coronary Prone Type A Behavior, Clinical Applications of Psychoneuroimmunology, International Labor Organization Survey of Job Stress Around the World, Advances in Occupational Health Promotion and Stress Management, Stress and Depression. Stress Reduction Workshop Featuring Oriental Approaches, Stress and Subtle Energies (aromatherapy, touch, massage, biomagnetic influences, imagery), Post-Traumatic Stress Disorder. Presentation of Hans Selve Award to Ray H. Rosenman, M.D. Round Table Discussion with other Award Recipients on "Stress and Quality of Life" (Stewart Wolf, Bjorn Folkow, Jim Henry, Yujiro Ikemi, Lennart Levi, Joel Elkes) Registration Limited. 30 CME credits.

# TEMPORARY INSANITY DUE TO STRESS

defenses have been creeping into court cases based on uncontrollable and unavoidable stress. Daimion Oby, a black 18 year old who shot 2 unarmed black men in a Texas parking lot, was recently able to get a mistrial because of a deadlocked jury. His lawyer had successfully argued that because of a racist country and an inner city upbringing, he suffered from "urban survival syndrome". This is the fear that

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Some novel and innovative temporary insanity inner city black people have of other blacks, which convinces them that the only alternative they have is to kill. Colin Ferguson, who killed six people and injured 19 on a Long Island railroad train rampage, claimed that his actions also resulted from "black rage", which his defense described as a form of "racial prejudice-induced insanity". "Roid rage", or the severe mood swings associated with steroid use. was the defense used for a 19 year old to explain why he was tossing rocks at cars on an interstate parkway in Pennsylvania, injuring several people. A 14 year old boy who had battered a 4 year old to death in an upper New York State town, maintained that he suffered from "fetal trimethadione syndrome", due to his mother's use of epilepsy medication during pregnancy, which caused an uncontrollable "sadis-(Continued on page 2)

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tic" side. The serial killer, Joel Rifkin, unsuccessfully pursued an "adopted child syndrome" defense for the killing of one of his victims in New York. His lawyer had argued that because Rifkin was rejected by his biological mother, whom he believed to be a whore, he sought refuge among prostitutes, and subsequently strangled them "to ease his suffering".

A retrial is scheduled for Lyle and Eric Menendez, the brothers who are accused of shooting their parents to death while they watched television, which will likely again invoke an "abused child," defense. In an affluent New York City suburb, Richard Cox killed a husband and wife, both physicians, in the bedroom of the house they had purchased from his parents 20 years previously. He explained that he was temporarily insane due to an alcoholic blackout, and thought he was murdering his parents. As of this writing, the jury has been deadlocked for several weeks. The lawyers for O.J. Simpson currently claim that their client is not guilty and will not plead temporary insanity. However, if DNA tests prove otherwise, this is always an option that can be pursued, explaining that the severe stress of the event wiped out all memory of what happened.

Such "temporary insanity" pleas are successful in 1 out of 4 cases in obtaining a conviction for manslaughter, which carries a lesser penalty than murder. Most follow the formula "I am a victim of - (fill in the blank) - and couldn't help myself". Temporary insanity was a successful excuse for Lorena Bobbit, who invoked the "battered women" defense to explain why she sliced off her husband's penis while he slept. Aurelia Macis, who castrated her husband with scissors, was also acquitted of mayhem and assault. Her temporary insanity resulted from her husband forcing her to have sex while she was breast feeding their baby. The attorney for Moosa Hanouki explained to L.A. jurors that his client killed his wife because she made him sleep on the floor, called him names, and abused him in other ways, causing him to lose all self esteem. As a result of this psychological emasculation, he beat her to death with a wrench in a fit of frenzy. It was argued that because of his Persian Jewish background he could not seek a divorce and had no other recourse. He was acquitted of murder and sentenced to 11 years in prison for voluntary manslaughter, in what was described as "a major victory". As his lawyer admitted, "To be frank, I just didn't know how it would turn out. It was a big gamble from the very beginning." The Deputy District Attorney who prosecuted the case complained, "I think it sends a very frightening message to the rest of society that all you have to do is come up with some kind of excuse when you commit a crime". Alan Dershowitz, a Harvard Law Professor, whose book "The Abuse Excuse" is due out this year, also believes that such cases threaten the legal system, noting "They trivialize the defense... the history of abuse is not a license to kill".

As more scientific advances are made in the study of human behavior, juries are increasingly apt to be persuaded that many conditions are not self induced or the responsibility of the individual, but rather the result of unavoidable biological and/or psychological defects over which they have little control. That may be understandable for victims of "battered wife syndrome". Their lawyers invoke an expansion of the excuse for self defense that justifies violent actions because the defendant is in

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imminent danger. They argue that since their clients are unable to retaliate while being attacked, their only relief to prevent future incidents is to seek revenge when their partners are most vulnerable, or asleep. However, many question whether such reasoning can be applied across the board in situations involving other violent crimes. This type of defense has been fostered by the pop psychology boom of the 70's. More recently, it has been further nurtured by afternoon talk shows and other media hype, resulting in a popular belief that there is an explanation-and therefore, a possible justification—for any criminal act. Nevertheless, criminal law is based on the premise that people have free will. As one law professor explained, "This may be based on legal fiction, but it's necessary in a democracy. Take it out and we all become characters in a George Orwell novel".

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

## More on Depression and Heart Disease

Previous Newsletters have reported on research showing that distressful emotions and behaviors are associated with an increased incidence of coronary heart disease. Hostility is thought by some to represent the most important component of Type A behavior in this respect, possibly because of increased secretion of stress related hormones that can cause cardiac damage. Depression also appears to predispose to heart attacks. Patients who are significantly or persistently depressed following a coronary seem more prone to recurrent events and increased mortality rates, although the mechanisms involved are less apparent. This is supported by a recent study of patients undergoing cardiac rehabilitation, which suggests that young women may be particularly at risk.

Approximately 800 patients were followed at 12 different centers, with females accounting for 28 percent. On entry into the program, women reported more symptoms of stress, with 31% showing

signs of clinical depression, compared to 20% of the men. The 10 week rehabilitation program included increased exercise activities, dietary intervention, stress management training, and behavioral modification. Almost one out of four females dropped out of the program, vs. only 18% of the men. All of the women who completed the training showed significant improvement in exercise tolerance and a reduction in cholesterol and weight, except for those under the age of 60. The youngest group of women had much more persistent functional impairment and psychological distress than all of the other groups, and also tended to be more clinically depressed at the end of the program. These findings suggest that young women who have suffered a heart attack may be more prone to future problems. One explanation might be that because they are frequently depressed, this renders them less able to modify other contributory cardiovascular risk factors.

In another study, 103 patients with documented coronary heart disease underwent psychological testing and a psychiatric interview, and cardiovascular status was evaluated by 24 hour ambulatory electrocardiograph monitoring. Of this group, 20% were judged to be clinically depressed. Because of the association between depression and elevated autonomic tone, researchers were interested in determining whether the depressed group showed any increased incidence of ventricular irritability and arrhythmias. It was found that the relative risk for ventricular tachycardia in the depressed patients was more than 8 times greater than the remainder of the subjects, suggesting why this group might also be at greater risk for sudden death.

It might be argued that this relationship is due in part to the fact that cardiac patients who are seriously ill are more likely to suffer complications, and may be depressed because of their physical problems, rather than vice versa. This issue was addressed in another report, where risk of death was 3 to 4 times higher for depressed subjects, even when such factors as a previous heart attack or poor ventricular function were taken into consideration. In addition, none of the above studies found that depressed subjects had more severe heart disease

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It's not clear as to how depression increases morbidity and mortality, or how this can best be prevented and treated. There are various effective anti-depressant medications, but unfortunately, many of these can cause arrhythmias, are contraindicated following a heart attack, or must be used cautiously in patients with cardiovascular disease. In many patients, stress reduction strategies, particularly the development of strong social support, may be safer and equally effective alternative approaches.

Internal Medicine News & Cardiology News June 1, 1994

Cardiology World News-June 1994

# Job Stress, an International Epidemic?

"Workers of the world unite", used to be a popular Communist slogan. However, in the 1990's, workers are not joined by such Marxist philosophy, and job stress appears to be a more common bond. As indicated previously, an International Labor Organization survey describes job stress as a "worldwide epidemic", that includes "waitresses in Sweden, teachers in Japan, postal workers in America, bus drivers in Europe, and assembly line workers everywhere". No particular occupation or country appears to be immune. In Japan, approximately 40% of teachers suffer from stress related headaches, depression, and feelings of anxiety. In Switzerland, 25% of executives admitted to being very seriously dissatisfied with their work. At least one out of five of all workers in the United Kingdom complain of significant anxiety and depression, and almost half of salaried employees in the United States report that they experience excessive stress, with 15% suffering from clinical depression. In the ILO report, the two industries with the highest rates of job stress were telecommunications and financial services. However, as indicated previously, job stress is more often a function of the person-environment fit, rather than the occupation itself.

Psychology Today-May/June 1993

### **Stress and Abdominal Pain**

Numerous experimental and clinical studies confirm that emotional stress can significantly influence gastrointestinal function, both with respect to secretory activity and motility patterns. Patients suffering from peptic ulcer, gastroesophageal reflux, irritable bowel syndrome, ulcerative colitis, and various other gastrointestinal complaints, often cite stress as a precipitating or aggravating factor. To examine this further, researchers studied students during final examinations, measuring such things as gastrointestinal transit time, heart rate, blood pressure, anxiety levels, and various stress related hormone levels. An unexpected finding was that there was no change in the time that food took to pass through the gut, or increased complaints of gas, diarrhea, or gurgling sounds in the abdomen. However, during the examination, cardiovascular and hormonal markers of stress were elevated compared to controls, and there was a significant increase in the reported severity of abdominal pain. This study suggests that the emotional stress of performance anxiety can cause abdominal pain without evidence of any other gastrointestinal signs or symptoms, or changes in motility patterns.

> Internal Medicine World Report April 11-14, 1994

### Stress, Sweat and Sex

Many manufacturers have been trying to take advantage of the heightened interest in stress through novel advertising approaches. Some of the more innovative methods promote the stress reduction properties of products ranging from shoes and sneakers, to armchairs, aerobic activities, and various aromas. Sweat and stress are often synonymous, and a few years ago, Revlon conducted its "Stress in the Nineties" nationwide survey to boost sales of their Mitchum line of anti-perspirants. It revealed that housewives were more stressed than top male executives, that job stress was the major source of stress for all American adults, had steadily wors-

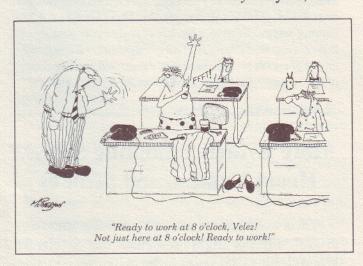
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ened over the previous five to ten years, and that exercise and music were the most popular stress reduction pursuits. Other questions were designed to determine how individuals dealt with stressful situations most apt to make them sweat, such as public speaking, job interviews, requesting a raise, first meeting with a potential romantic partner, discussing money matters with a spouse, etc.

Most of these findings were recently confirmed by the "Dial Plus Big Sweat" poll of 1,000 adults. Public speaking was again at the top of the list for both sexes as the most stressful cause of perspiration. Women were more apt to sweat during job interviews, dental visits and over finances. Particularly stressful, sticky situations for men included marriage (44%), divorce (35%), and first dates (33%). Females reported that they tended to unwind by taking a bath or shower. However, most men indicated a preference for exercise or sex, although some may have had to settle for a cold shower.

USA Today-May 18, 1994



# Survival After Death of a Spouse and the "Weaker" Sex

In the Holmes-Rahe and almost every other stress rating scale, death of a spouse heads the list. It has long been observed that mortality in survivors is unusually high in the twelve to eighteen months following bereavement, particularly for males.

According to some researchers, Richard Nixon's fatal stroke may have been related to the death of Pat Nixon after 53 years of a close marriage. As one explained, "although it may not have been caused directly by the stress of bereavement, it was probably hastened by it". Historian Will Durant passed away thirteen days after his wife and collaborator, Ariel, and Buckminster Fuller and his wife died just 36 hours apart. Widowers have higher mortality rates than married male controls in all age groups. However, those who remarry enjoy the same lower rates as those who had not lost their mate. The explanation for this, or why bereaved men are at greater risk than the "weaker" sex, is not clear.

Women probably survive longer than men following loss of their mate for several reasons. In general, they experience fewer and less dramatic alterations in lifestyles. Sudden, or significant changes in daily routines can pose health hazards for a variety of reasons. In addition, men often have not developed as many close friendships and family relationships as their wives. Strong social support systems can be very powerful stress buffers, and possibly promote health in other ways. As one epidemiologist explained, "when we lose a wife we go to pieces, we don't know how to take care of ourselves". Dramatic declines in immune system components responsible for resistance to disease have been demonstrated in both sexes following the death of a spouse. In addition, motor vehicle and other accidents, as well as suicides, are significantly greater in bereaved individuals. Severe depression can also seriously affect the surviving spouse's will to live, and often this may not be recognized or fully appreciated.

The first 6 to 12 months of bereavement appear to be the most perilous period. Relatives and friends should be alert to this, and attempt to provide appropriate emotional support as promptly as possible. This includes encouraging social activities, insuring proper nutrition and medical care, and most importantly, engendering a feeling of being needed and appreciated. However, it is important to emphasize that such efforts must be pursued in a careful and cautious fashion, since in certain instances, they could backfire. For some bereaved

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individuals, maintaining a strong sense of separate identity, and avoiding over dependency on others seem to be important factors that favor health and survival. Therefore, each situation must be evaluated on an individual basis, and reappraised periodically.

Newsweek-May 9, 1994

### Stress, Strokes, and Presidents

Richard Nixon was the seventh U.S. president to have suffered a stroke. The incidence of strokes in the general population is about 9%, but for U.S. Presidents, is more than 14%, presumably because of what has been described as "a killing job". A neurologist who has recently written a paper on Presidential strokes agrees, stating "the primary cause is stress, which is unavoidable". Other chief executives who either died or were incapacitated by strokes include Thomas Jefferson, John Quincy Adams, Woodrow Wilson, Warren Harding, Franklin D. Roosevelt, and Dwight Eisenhower. Another contributing factor may be that Presidents historically have had poor exercise and dietary habits, although this seems to have improved in recent years.

More than a half million people suffer a stroke each year, and fatalities occur in about one hundred and fifty thousand cases. Costs per patient average \$11,000 in rural areas, compared to \$18,000 in cities. Severe strokes can run up medical expenses of seventy five thousand dollars or more, and a total of thirty billion dollars is spent annually for treatment and rehabilitation. For some reason, three month death rates are only 19.4% in New England, compared to close to 25 percent in Rocky Mountain states.

An experimental drug that puts the brain into a state of "suspended animation" may have tremendous potential for remarkably limiting damage in mild to moderate strokes. It acts by blocking a brain chemical called glutamate. Under normal conditions, glutamate serves as an "excitatory neurotransmitter" to facilitate transmission of signals between brain cells, and is therefore important in maintaining memory. During a stroke, however, its effect

on brain cells can be compared to throwing gasoline on a fire. The new drug, called CGS 19755, prevents this by blocking the spaces on cells where glutamate normally attaches. In one study of over one hundred stroke patients, 92% given the drug had "good recovery", compared to only 65% of control patients given a placebo. The criteria for recovery were based on the patients' ability to care for themselves and to perform routine tasks easily. Because it is most effective when given within 6 hours of the onset of symptoms, prompt hospitalization is important, and nationwide testing has now begun in 30 regional centers throughout the country. Some of the new clot busting drugs used to successfully reverse acute heart attack damage also may minimize stroke injuries if administered in the first few hours following the onset of symptoms.

> USA Today-May 5, 1994 USA Today-May 6, 1994 Associated Press, Gannett-April 22, 1994

No one who has not had the responsibility can really understand what it is like to be President, not even his closest aides or members of his immediate family. There is no end to the chain of responsibility that binds him, and he is never allowed to forget that he is President... A President either is constantly on top of events or, if he hesitates, events will soon be on top of him. I never felt that I could let up for a single moment.

Harry S. Truman

# More Evidence Linking Stress, Heart Attacks, and Strokes

It is well known that acute emotional stress can evoke "fight or flight" responses that accelerate blood clotting. This may be mediated via a variety of mechanisms, including enhanced platelet aggregation and increases in various blood clotting factors, as well as changes in blood flow and vascular constriction. If severe or prolonged, clots can result in a coronary occlusion or stroke.

The mental stress of time pressures, particularly if associated with frustration due to interference in getting things done, appears to produce similar quicker clotting tendencies. In one recent

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study, 30 healthy young men were subjected to a frustrating mental task with built-in impediments that had to be completed within a certain deadline. Blood platelet secretion of ATP was measured before and after the experiment, and compared to results obtained in 10 controls who simply sat quietly during the 21 minute test period. ATP spurs a chain of physical reactions that causes constriction of blood vessels, often resulting in severe narrowing, and a slowing of blood flow sufficient to promote life threatening clots. In addition, ATP triggers a chemical reaction that encourages platelet aggregation and clumping, which also results in clot formation. The experimental group showed a marked increase in platelet ATP, but no change was seen in any of the controls not subjected to the mental stress test.

This laboratory study may have important clinical implications. As one of the researchers explained, a comparable real life experience might be "when you have a deadline project at work and you'll get some reward for completing it, but you keep encountering interruptions". Many of us can identify with that.

Psychosomatic Medicine-Nov.-Dec. 1993

# Teenage Stress and Hypertension

According to a recent Johns Hopkins report, teens whose blood pressures are above average for their age because of chronic frustration, may be at increased risk for hypertension in later life. For girls in the study, higher blood pressures were most apt to result from social rivalries and struggles for dominance. Among boys, feelings that they were unsupported in their struggles to succeed was the major cause of elevated readings. In both sexes, the "frustration of the teenagers' strivings in life" appeared to be the most powerful, prognostic predictor for future hypertension, rather than more commonly linked moods and emotions, such as anxiety, anger, and hostility. Those with the highest levels were the ones most likely to develop permanent hypertension as adults.

However, it is important to recognize that the levels of blood pressure which were associated with increased risk are not in the range of those normally associated with hypertension. For example, a fifteen year old boy with a diastolic blood pressure over 79 (the 99th percentile for this age), has twice the risk of being hypertensive at age 35, compared to those at a lesser level. Hypertension for adults is a measurement consistently greater than 90 diastolic.

The study involved 240 ninth graders who were interviewed about their personal hopes, goals, and frustrations. Blood pressures were continually recorded with ambulatory monitoring equipment. It was noted that elevations were most apt to occur during descriptions of particular situations that were personally stressful. Those with the greatest rises in blood pressure while talking about intimate stresses also tended to exhibit higher average levels during the rest of the 24 hour monitoring period. Prior research has reported that in boys 7-18, those with the greatest rises in blood pressure while performing a stressful mental task, also had the highest resting blood pressure levels 7 years later. Studies of medical students have similarly confirmed that those with the sharpest rise in blood pressure when under intense examination stress, were much more likely to be receiving treatment for hypertension 20 vears later.

Many authorities believe that protracted emotional stress resulting in higher blood pressures can also contribute to coronary heart disease. Recent evidence suggests that antioxidants can reduce not only the development of coronary heart disease, but also the incremental increase in blood pressure that occurs with aging. This has been demonstrated in several studies for Vitamins C and E, as well as beta carotene, and these benefits may also extend to stroke prevention.

New York Times-May 18, 1994 Internal Med. News and Cardiology News-5/1/94

The young always have the same problem - how to rebel and conform at the same time. They have now solved this by defying their parents and copying one another.

Quentin Crisp

# **Book Reviews • Meetings and Items of Interest**

#### **Book Review**

No Hassle!: Taking the Stress Out of Work Cartwright, S. and Cooper, C.L. Century, London, 1994 207 pgs. £8.99 U.K.

This concise volume is chock full of practical information on how to deal with the diverse and constantly increasing problems related to occupational stress. It is particularly timely, since all recent surveys confirm that job stress is the leading source of stress for U.S. adults, and the recently released International Labor Organization report described it as a "worldwide epidemic". In addition to its well documented cardiovascular and other adverse health effects, job stress imposes incredible direct and hidden costs on corporations and society. Although the source and nature of workplace stress may vary with different occupations and demographic groups, there is a growing appreciation that the person-environment fit is of primary importance. This is something we can learn to control. Many problems stem from faulty perceptions, inappropriate coping styles, not setting priorities, poor time management, and other deficits that are quite correctable. These and other relevant issues are thoroughly explained through the use of meaningful illustrations and examples.

Some of the diverse topics covered include how to cope with such things as travel stress, new technologies, mergers and acquisitions, problems with customers, colleagues and superiors, and a corporate culture that has different goals and values. The final chapter on how to deal with problems at home that spill over to work, and vice versa, is particularly valuable. Almost every conceivable work related problem is addressed in this pithy offering. More importantly, the reader is provided with strategies on how to deal with them effectively by improving cognitive and communication skills, rather than the usual relaxation and exercise prescriptions. The

numerous useful charts and diagrams are well illustrated, and references are complete and up-to-date. The authors are well recognized authorities, and their refreshingly different approach represents the distillate of two decades of practical experience in the field. Highly recommended to anyone interested in understanding the variegated sources and manifestations of job stress, and particularly how to prevent and cope with them more effectively and efficiently.

#### Meetings and Items of Interest

Aug. 24-28 Comprehensive Review of Adolescent Medicine Course: Specialty Areas Related to Adolescent Health, Society for Adolescent Medicine - American Academy of Pediatrics, Hotel Sofitel Chicago O'Hare Airport, Chicago, IL, call (800) 433-9016, ext. 6796

**Sept. 9-17** Understanding and Treating Chronic Pain: Donald Richardson, M.D., Chmn, Dept. Neurosurgery, Tulane University, International Professional Meeting Coordinators, QE2 Crossing w/ Optional Extension in London England, call (800) 645-2222

**Sept. 10-14** Twelfth World Congress of Cardiology and 16th Congress of the European Society of Cardiology, Berlin, inquire: EECO, 22 Rue Juste-Olivier, P.O. Box 299, CH-1260, Nyon, Switzerland

Sept. 16-18 Comprehensive Psychiatry Review Part II: The Psychiatric Interview, Univ. of Chicago School of Medicine, Forum Hotel, Chicago, IL call (312) 702-1056 Sept. 21-24 AWHP 20TH ANNUAL INTERNATIONAL CONFERENCE, Oregon Convention Center, Hall A, Portland, OR, call Rachael Riggs or Shelly Fargo at (708) 480-9574 to reserve space, or Mary Dulabaum (same phone) for information on advertising in the premiere issue of AWHP's Worksite Health.

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