# The Newsletter of THE AMERICAN INSTITUTE OF STORY THE AMERICAN INSTITUTE OF THE AMERICAN INSTITUTE OF

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#### Stress and The President's Heart

President Bush suffered an episode of atrial fibrillation early last May while jogging at Camp David and was helicoptered to Bethesda Naval Hospital. Atrial fibrillation is manifested by an irregular heartbeat that is often quite rapid and can be associated with shortness of breath, palpitations, lightheadedness, and chest distress. A prominent Washington cardiologist who was asked to comment on the President's condition, stated "In most cases, atrial fibrillation is a benign condition brought on by stress." He explained that "during stress, like when someone is jogging, the body can produce extra adrenalin and this can stimulate other parts of the heart and send electrical signals which can overcome the normal signals of the right atrium. It can often occur in the absence of any other evidence of heart disease."

This appears to have been the case with President Bush. It was pointed out that during the same week he had participated in several rigorous activities, including "aerobics, lifting weights, and playing basketball and soccer, in the Great American Workout at The White House with Arnold Schwarzenegger, the chairman of the President's Council on Fitness." However, it was also noted that he had been under extreme emotional stress because of "news reports detailing allegations that he was involved in delaying the

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release of the United States hostages, held in Iran to help the 1980 election prospects of Ronald Reagan." President Bush denied any such involvement to reporters, asking them to "stop repeating rumors over and over again, it's sickening."

In an interview three years ago, President Bush indicated that he "handled stress better than he did 20 years earlier because he was no longer a chronic worrier who suffered from ulcers." In his own autobiography, *Looking Forward*, the President confessed that he was a "chronic worrier" in his thirties when he was trying to develop his oil business. On a business trip to London, he wrote, "I woke up one morning, started to get dressed, and then suddenly found myself on the hotel room floor." He wound up crawling to the bedside to push a buzzer for help, and was subsequently diagnosed as having a bleeding peptic ulcer.

Despite the fact that this episode of atrial fibrillation occurred while jogging, his doctors initially indicated no intention to significatly cut down on the President's physical activities or jogging. This also suggests that they may believe that emotional rather than physical stress, may have been the main culprit. As noted in a prior issue of the Newsletter, President Bush's atrial fibrillation appears to have been related to Grave's Disease, a thyroid disorder which many authorities believe to be primarily stress related.

The New York Times, 5-5-91

"The White House is the finest prison in the world."
— Harry S. Truman

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

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## Stress Claims for Cancerphobia Increasing

In the late 1970's, 128 residents in a rural Tennessee county sued a chemical company whose waste had contaminated their wells with chemicals that caused liver and kidney disorders, but had also been linked to cancer. In addition to bona fide medical problems, compensation was also demanded because of *fear* of contracting cancer sometime in the future. In the past, such claims would have been thrown out, but a Federal Appeals court recently awarded \$207,000 for "cancerphobia" to five individuals serving as representatives for the class action suit. Additional compensation for the others will be determined by a trial judge unless the suit is settled out of court.

As noted in a previous Newsletter, Rock Hudson's lover received several million dollars because of the fear of contracting AIDS. Courts all over the country are no longer adhering to the conventional legal rule limiting awards to cases in which victims can prove that some physical injury is linked to their fears. Some even grant compensation when there really isn't any basis for fear in the first place. One family received a \$24,000 cancerphobia award after an exterminating company contaminated their well water while spraying for termites. None had any physical complaints. Eight months later, although blood tests showed they were not at any risk of becoming ill, the court still ruled that they had a "physical injury" due to the potential ingestion of possible carcinogens since eight months of worry deserved recompense." There seem to be no guidelines as to the amount of compensation. In

some instances, it is based on the duration of the plaintiff's exposure to possible toxic chemicals rather than the duration of their psychological distress.

The Wall Street Journal, 12-14-88

"As a rule, what is out of sight disturbs men's minds more seriously than what they see."

- Julius Caesar

#### Stress and Residency Training

Medical residents have had a lot of bad press in recent years because of several reports of errors in judgment or lack of care resulting in serious illness and death. Often, this is blamed on the long hours and other stressful demands of residency training. As noted in a recent article, "inordinate time demands, fatigue, and sleep deprivation are important and undesirable stress factors during residency training, which are frequently responsible for impaired efficiency and performance." Many states, such as New York, have recently enacted legislation limiting the number of consecutive hours medical interns and residents can be on call. In an effort to study stress levels more objectively, blood cortisol and ACTH levels were measured in fourth-year internal medicine residents. They are on duty every tenth day, for a steady 24-hour period, during which they are responsible for all admissions to the emergency department, as well as care of patients in the intensive care and coronary care units, and the regular wards. Levels of stress hormones were found to be significantly higher following this 24-hour period of duty, when compared with values obtained during normal work days. However, it is not clear whether this is the result of the emotional stress associated with professional activities or is related to increased physical activity and sleep deprivation, both of which can also increase these hormonal barometers of stress.

The New England Journal of Medicine, 9-5-91

"He is the best physician who is the most ingenious inspirer of hope."

— Samuel Taylor Coleridge

#### Meditation and Stress Reduction in Prisoners

Transcendental meditation (TM) became popular in the United States about 30 years ago, and subsequently spawned a variety of popular stress-reduction procedures, such as The Relaxation Response and The Quieting Response. TM practitioners are assigned a "mantra," a word-sound that is regularly repeated for 20 minutes twice a day.



This is done with the individual sitting in a quiet, comfortable environment, eyes closed, with the "mantra" being silently or softly repeated, usually synchronously with each expiratory phase of deep rhythmic respiration. Proponents find that it induces a state of deep relaxation, and also provides for a more conscious control of involuntary activities such as heart rate, smooth muscle relaxation, and blood vessel dilation.

Some studies suggest that regular TM practice can significantly reduce violence among prison inmates, as well as reincarceration following release from prison. Sixty percent of former inmates are generally back in jail within three years after release, this was reduced to 40 percent in TM practitioners. In San Quentin, the recidivism rate in parolees who learned TM was 35 to 40 percent lower than convicts who had received "prison education, vocational training, or psychotherapy." Sixty percent of the TM parolees were still "clean" after two years, compared to only 45 percent of non-TM controls. One individual who was sentenced to two life terms and had spent more than 24 years in California prisons, has now been out of jail for about four years following exceptionally good behavior. During that time, he married a corrections officer and is finishing up a pre-law course at the University of California with a 3.7 grade point average. Although it is not likely that he will ever be admitted to the bar with his felony record, it is obvious that he has received a new lease on life, all of which he attributes to TM. In the Western African state of Senegal, teaching TM to inmates and staff for six months in 1987 allegedly cut recidivism rates from 90 percent to 5 percent. Since then, three prisons have closed and several others are only slightly more than a quarter full.

A psychologist who teaches at TM's major educational institution, Maharishi International University

in Fairfield, lowa, earned his doctorate at Harvard by studying a TM program at a Massachusetts state hospital. He followed 53 inmates who had learned TM and 251 controls for four years after they were paroled in the early 1980's. His findings confirmed other reports demonstrating that the TM group was almost 40 percent less likely to be returned to prison than controls. A major move is now under way to encourage TM training in every prison, in an effort to provide a cost effective way of reducing crime and improving the quality of life.

Palm Beach Post, 9-12-91, Brain-Mind Bulletin, 1-91, Gannett Suburban Newspapers, 9-17-91

"If punishment makes the will supple it hardens the offender."

— John Locke

# Religious Faith and Blood Pressure

The health benefits of a strong faith have been extolled for centuries. It is believed that a strong faith confers a sense of control for many individuals, which serves as a powerful stress buffer. Most of this is based on anecdotal reports, since having a strong faith is difficult to measure or quantify. However, one possible barometer might be church attendance. Obviously, many individuals who regularly attend religious services do not necessarily possess a strong faith. Conversely, non-churchgoers may have intense religious beliefs, or a firm trust in something else.

In one recent survey, an attempt was made to identify white males of strong religious faith by following up questionnaires completed in the late 1960's concerning the personal significance of religion to them. About a quarter of the respondents reported not having a particularly strong faith in their religion. For those at the other end of the scale, the twenty-year follow-up confirmed that they had healthier blood pressure levels.

This connection was most apparent for men over 55 who smoked. It had been suggested that a strong religious faith might improve health by promoting healthier lifestyles. This did not appear to be supported by the observation that very religious men who were smokers had much lower blood pressures than non-religious controls. The lowest blood pressures were found in those church attendees who described their faith as very important. Correspondingly, those who reported little religiosity fared the worst.

In a separate study, the same researchers also (continued on page 4)

# Religious Faith and Blood Pressure (continued from page 3)

found that older women with strong religious beliefs who were recovering from broken hips, had less depression and improved walking ability after discharge from the hospital than those scoring low in this area. It was hypothesized that the soothing and comforting activities afforded by a strong religious faith might have possibly made them more responsive to their physical therapy program.

Brain/Mind Bulletin, 1-91, Journal of Religion and Health, 28:265-278, 1991, American Journal of Psychiatry, 147:758, 1990

"There is only one religion, though there are a hundred versions of it."

George Bernard Shaw

#### Stress And Engineers

A recent survey revealed that one out of three workers has seriously thought about quitting work in 1990 because of job stress, and an equal amount expect to "burn out" on the job in the near future. As noted previously, it is usually not the job, but the person-environment fit that is more important. Occupations in which the worker perceives a lack of decision-making latitude but lots of responsibility tend to be the most stressful and are associated with a higher incidence of heart attacks and hypertension. This may be a particular problem for design engineers, according to one executive, since "the emphasis upon quality means that not only does a job need to be brought in on time, and under budget, it needs to be done right." A psychologist who has studied engineers carefully, lists the following warning signs to alert workers and management that job stress may be excessive:

- frequent anger, frustration, fatigue, and forgetfulness
- 2. oversensitivity to criticism, mood swings and emotional outbursts
- 3. inability to concentrate or make decisions
- 4. accident proneness
- 5. physical complaints, including back and chest pain, stomach trouble, headache, palpitations, trouble breathing
- excessive eating, or loss of appetite

Stress management training is being increasingly implemented in an effort to prevent such problems. For engineers, these are aimed at:

- 1. decreasing the workload by involving customers more throughout the entire design process
- redistributing work assignments so that one group can work solely on small projects, freeing others up to focus on larger tasks without being constantly interrupted by questions about other assignments
- 3. scrapping the "totem pole" reward system;

which rewards engineers on the basis of performance ratings

- 4. adequately recognizing skills and technical contributions not only by some monetary reward, but more personally such as a group dinner to celebrate the completion of a particulatly difficult project
- 5. encouraging the use of automated technology that could relieve engineers of boring duties
- 6. allowing individuals to achieve career growth without necessarily having to be loaded down with extra administrative duties that come with higher positions
- 7. providing engineers with more say and control over their duties and work assignments
- 8. encouraging regular stress-reduction activities which might include jogging and aerobic exercise, as well as meditative and visual imagery strategies

Machine Design, 8-8-91



## Subtle Energies and ESP

The hypothesis that there are receptor sites on the cell membranes for subtle or weak energy signals is attracting increased support. Such a model is helpful in explaining the increased incidence of birth defects in pregnant women using electric blankets, the alleged higher incidence of brain tumors and leukemia in individuals living under high power lines, and the effects of geomagnetic influences on mood and behavior, etc. If one also subscribes to the Pribram-Boehm holographic theory of brain function, it could also help to understand a variety of parapsychological phenomena that have been reported. One of the major problems confronting PSI phenomena researchers is the difficulty in replicating results of specific experiments. In one Australian study, those individuals who had a high incidence of having experienced paranormal events were found to have certain personality characteristics that might be relevant. These included a positive effect, such as

enjoying life more, the capacity for deep absorption, and being able to immerse oneself completely in some pleasurable or meaningful experience. However, it is still not clear whether or not these personality characteristics predispose to such experiences or whether they may perhaps be the result of them.

In addition to variability in experiencing paranormal events based upon personality profiles, it also appears that the Earth's geomagnetic field can have an important effect on extrasensory perception. Canadian researchers reviewed more than 200 paranormal reports over the past forty years, including seeing visions of the deceased by grieving survivors, dream telepathic experiences, etc. to see whether there was any correlation with variations in geomagnetic activity. It is known that the Earth's natural geomagnetic activity varies in regular cycles, and this is expressed in what is termed the daily antipodal index. In examining these values, they found a surprisingly consistent correlation. Paranormal activity was definitely greatest when geomagnetic activity was minimal and least apparent when the antipodal index was the highest. This finding is all the more remarkable since ambient electromagnetic activity is also influenced by man-made electromagentic fields, which could not be evaluated or measured.

All of the above possible confounding factors are important to consider, when attempting to evaluate the significance of the results of PSI investigations. More careful attention to the selection of individuals and more accurate measurements of natural and man-made energy forces which may play an important role may help to put the scientific study of PSI phenomena on a firmer footing.

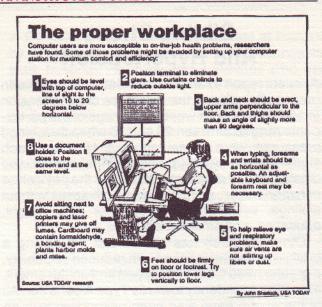
Brain Mind Bulletin, January, August 1990 NOETIC Sciences Review Winter 1990/91

"Nothing can cure the soul but the senses, just as nothing can cure the senses but the soul."

- Oscar Wilde

# Computer to Fight Computer Stress

As noted previously, Worker's Compensation complaints and litigation for job stress are escalating rapidly, particularly with respect to suits for repetitive motion injuries. These occur most often in individuals subjected to prolonged computer usage. Common complaints are carpal tunnel syndrome and tendonitis, as well as neck and back pain, eye strain, and other visual complaints. Such problems are seen much more frequently in workers whose key stroke and computer activities are



being monitored by superiors to evaluate their performance and efficiency.

As a result, mandatory breaks are now being urged for workers with long stretches of continuous computer usage. According to a recent article, one large New York newspaper has now banned the internal use of electronic mail in an effort to reduce the number of daily key strokes. In addition, a variety of computer software programs have also been devised to signal workers when a break is indicated. Keystrokes and mouse clicks are monitored, and at appropriate intervals, exercises are suggested for the wrists, arms, and eyes. These are designed to prevent carpal tunnel syndrome and tendon injuries by prescribing exercises, such as, to stop and stretch the fingers for a count of five; relax, and then to clench both fists an equal amount of time. The drill is repeated five times. Another program is aimed at strengthening eye muscles using exercises to require specific eye movements and focus changes by viewing objects at different distances. According to the manufacturer, practicing this regularly also improves reading comprehension.

However, not everyone is jumping on this bandwagon. As one vendor of such services complained, "Top level executives say, 'I'm not going to pay money in order to have my work force not work."

The Wall Street Journal, 5-1-91

- Don Herold

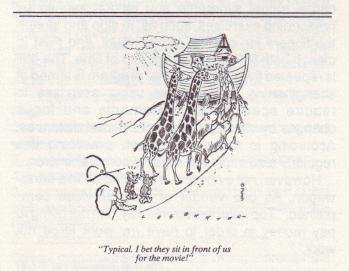
<sup>&</sup>quot;The world is filled with willing people; some willing to work, the rest willing to let them."

## Sibling Stress And Hypertension

A recent report examined the relationship between having siblings and the incidence of hypertension in 15,000 men and women. The age of the participants ranged between 20 and 70 when their blood pressures were measured in a 1961 research study. Recent follow-up revealed that systolic and diastolic blood pressures, as well as the pevalence of hypertension, were higher in both sexes without siblings, even when adjusted for age, weight, education, and smoking status.

Other research has shown that not having a brother or a sister is linked with reduced sociability, a greater need for social support and achievement, as well as a tendency towards Type A behavior. All of the above have also been associated with an increased incidence of coronary heart disease and hypertension. It was suggested that "stress caused by higher expectations from parents and less social experience may be the culprit." Being an only child may result in having a more limited social network of friends. Consequently, such individuals "may be less skillful in dealing with people and in social interactions." The study also found that those with more brothers and sisters tended to have less hypertension than those with fewer siblings. As might be suspected, the eldest child was most likely to have hypertension, presumably because of being an only child for a longer period of time. The New England Journal of Medicine, 5-2-91

USA Today, 5-2-91



#### More on Stress and Children

"Childhood may be extinct," according to one psychologist, who has written a book on the problem. It's not unusual to now see fierce competition at the nursery school level, anxiety attacks by age 9, and ulcers at age 11. "Kids are pressured to have sex at 12, get high at 13, and get even at 14." The United States now has the highest teen

pregnancy rates in Western society. Teen suicide and homicide rates have tripled, childhood obesity has increased by 50 percent, and more children are living at the poverty level now than 20 years ago. Type A behavior, originally described as an adult male trait, is being detected earlier and earlier in childhood. Children with high Type A ratings also exhibit more stress-related symptoms such as rapid pulse, increased muscle tension, cold hands, headaches, and digestive and sleep problems.

A complaint in four out of five type A's was that "few recall feeling loved for who they were rather than for what they had accomplished." A recent Carnegie report revealed that 12 to 15 percent of all youths suffer from emotional problems or other disorders that require medical treatment, and about 70 to 80 percent don't receive it. Much of the problem stems from disruptive family lifestyles, increased urbanization, and the social isolation associated with deterioration of family and religious nurturing.

\*\*American Health\*, October, 1989\*\*

Westchester Gannett, 10-16-91

"My mother loved children—she would have given anything if I had been one."

Groucho Marx

#### The Dream Machine And Stress Reduction

The "Dream Machine" is a new stress-reduction device that claims to be effective for insomnia and in inducing a state of deep relaxation. The machine consists of several components that provide "sensory treats" designed to eliminate stress and rid your mind of clutter. The major component is the JETBED which resembles a rubdown table. However, underneath it is a jacuzzi, which, "with the flip of a switch, will give you a warm, bubbly, watery massage without actually getting you wet." At the same time, you can watch a video screen and select your choice of soothing computer-enhanced programs while headphones simultaneously transmit similar relaxing sounds and stimuli. If that's not enough, a variety of pleasant scents can be programmed to further enhance the relaxation process. For those who want still more, laser light and biofeedback enhancements are also available.

The inventor, who is a 38-year-old computer industry drop out, projects a large and varied market for his creation. He "pictures a future where stressed-out women at home with their children can take time during the day to visit the Dream Machine; where office workers on coffee breaks can slip into the Dream Machine Room and relax their minds; where school children can rid themselves of tension."

Gannett Suburban, 9-17-91

# Stress Reduction Comes to Japan

As noted previously, an epidemic of job stress-related heart attacks due to overwork (karoshi) is a serious problem in Japan. Some workers are so addicted to their jobs, that 12 to 14 hour work days, six or even seven days a week are not unusual. Many actually become depressed on weekends or when on vacation and require psychiatric assistance. Japanese workers spend about 65 more days a year at their jobs than those in Germany, and 25 more than Americans. The average yearly

paid vacation is only 8.2 days.

Corporations and the government are trying to convince over-zealous workers to take more time off. Mazda now holds an annual "dream vacation contest," in which contestants describe their fantasies, or "ideal getaway." Winners get to have their dreams come true at company expense. Last year's winner received a \$3,500 subsidy, to allow him to compete in an international ballroom-dance contest at London's Royal Albert Hall. Although he didn't win, he now "proudly displays his name emblazoned on a copy of the contest's program." Despite this exhilarating experience, it's hard for him to get used to the idea of what he considered to be an extended vacation, stating "Two weeks off was a long time."

A large supermarket chain has now ordered a mandatory *month long annual holiday*, for all workers at middle management levels or above. One 36-year-old executive who had never taken off more than five days a year, finally visited his 90-year-old grandmother for the first time in 14 years. He was also able to attend his first PTA meeting, where he learned that his 8-year-old son, whom he considered to be absent minded and irresponsible, was actually a very conscientious student.

Japan now has a National Recreation Association composed of experts who offer classes to train "leisure counselors." The Administrative International Trade Industry also encourages corporations to employ such qualified advisors on a permanent basis in order to teach employees how to utilize their free time to achieve maximum benefits. Younger workers seem to be able to adapt more readily to the imposition of more leisure time, so that they can take vacation trips. Many may return to their jobs and work ever harder so that they can repeat the experience next year. Older workers tend to be more steadily devoted to their work, possibly because of their post-war inheritance of struggling to rebuild the economy. The reaction of one worker who had taken only two days off so far this year, was, "now I'm finally down

to 15 days of vacation time left."

The New York Times, 9-5-91

"A vacation is over when you begin to yearn for your work."

— Morris Fishbein

#### Erogenous and Antidepressant Effects Of Exercise

While exercise may not benefit non-obese hypertensive patients, it apparently has other stressreduction rewards. 55 college students who had scored high on stress rating scales for recent negative life events, received either areobic exercise training, relaxation exercises, or no treatment at all. Halfway through the three-month program, all of the 18 students in the exercise group reported a greater decrease in depressive symptoms than those in the other two groups. The exercise group included six students who were clinically depressed at the beginning of the study. Five of these returned to a normal state after only five weeks of running for half an hour three times weekly. These results did not appear to be due to any significant improvement in physical well being, since subjects in all of the groups reported improved health over the period of study. A placebo or expectancy factor also appeared to be excluded since the 19 students in the Relaxation Training Program had the highest improvement expectations.

In another experiment, 95 sedentary middle-aged males were put on an exercise program to reduce their risk for heart disease. When interviewed nine months later, it appeared that the exercise program provided erogenous as well as aerobic rewards. The average frequency of intercourse increased from nine to twelve times a month, and orgasms and sexual fantasies improved. A prior report similarly had quoted female exercisers as indicating that "exercise made them more easily aroused, led to more sexual activity,

and easier orgasms."

Internal Medicine News, 2-88, USA Today, 10-16-91

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American Institute of STRESS Newsletter

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

The Anxiolytic Jungle: Where Next? Wheatley, D., Ed., John Wiley & Sons, Chichester, 1990, 213 pp., \$95.

This book, edited by a well-known stress researcher, provides a multidisciplinary approach to various controversial issues surrounding benzodiazepine therapy. It is based upon presentations made previously at a forum established by the Royal Society of Medicine, with some additional invited contributions to round out its scope. The justification of the title, "The Anxiolytic Jungle" has been achieved in a comprehensive and authoritative fashion. However, the same cannot be said for the subtitle "Where Next?" It suggests that the answer lies in the development of newer pharmacologic agents. Presumably, these will be devoid of the problems that have led to recent lawsuits in the United States and the decision to ban the sale of the world's leading hypnotic in Great Britain.

It is regrettable that no reference is made in this volume to a variety of promising new approaches utilizing subtle energies that can provide therapeutic benefits without adverse side effects or addictive tendencies. These include stroboscopic photic and cranloelectrical stimulation. The induction of a weak magnetic field in the region of the hypothalamus has recently been shown to be effective for insomnia in doubleblind polysomnography studies at two major U.S. sleep centers and has been utilized effectively to treat benzodiazepine addiction in Europe. It is unfortunate that such emerging promising approaches were not alluded to in either of the last two chapter entitled "The New Alternatives" and "Relaxation without Drugs." However, this does not significantly detract from the value of this volume, with respect to its comprehensive discussion of both the pharmacokinetics and complex clinical and psychosocial issues associated with anxiolytic therapy.

#### Meetings and Items of Interest

Nov. 15-16, Endoscopic Solutions, 15th Annual Postgraduate Course of N.Y. Society for GI Endoscopy. NY, NY (212) 777-5176.

Nov. 16-19, Southern Medical Association, 85th Annual Scientific Assembly, Atlanta, GA (800) 423-4992.

Nov. 20-21, Seminar on ELF and VLF Magnetic and Electrostatic/Electric Fields, Ergonomics, Inc., Orlando, FL (215) 357-5124.

Nov. 22-24, The Psychiatric Interview, Univ. of Chicago School of Medicine, Chicago, IL, 312-702-1056.

Nov. 21-24, Association for Advancement of Behavior Therapy (AABT) 25th Annual convention: Sessions will cover a broad range of the behavioral perspective, NY, NY (212) 279-7970.

**Dec. 4-7,** National Institute for the Clinical Application of Behavioral Medicine (NICABM): The Psychology of Health. Immunity and Disease Third Natinal Conference Orlando, FL (203) 429-2238.

Dec. 4-7, Gastrointestinal Endoscopy: Update on Diagnostic & Therapeutic Techniques, University of South Florida College of Medicine Division of Digestive Diseases & Nutrition, Orlando, FL (813) 974-2034

**Dec. 5-9,** American Academy of Psychoanalysis; Gender Issues: A Clinical Psychoanalytic Re-Examination, New York, NY (212) 679-4105

Dec. 6-7, University of Michigan Med. School Psychiatry Update 1991, Ann Arbor, MI (313) 763-1400.

Dec. 11-13, Acoustic Neurome, NIH Consensus Development Conference, National Institute of Neurological Disorders and Stroke and NIH Office of Medical Application of Research. Open to Public. Bethesda, MD (301) 468-MEET.

Jan. 9-11, UC Davis School of Med., California Trauma Conference 1992, Sacramento, CA (916) 734-5390.

Jan. 16-18, American Academy of Pain Medicine, Scottsdale, AZ (708) 966-9510 x2231.

Jan. 17-18, Imagery and Visualization Techniques and Applications AAPD, Houston, TX (303) 422-8436.

Feb. 2-5, Clinical Problems in Gastroenterology IX. Stowe, University of Vermont. Stowe, VT (802) 656-2292.

March 19-24, Association for Applied Psychophysiology and Biofeedback Annual Meeting Colorado Springs, CO (303) 422-8436.

June 14-19, First World Congress for Electricity and Magnetism in Biology & Medicine, Orlando, FL.

Aug. 17-21, Hans Selye Symposia on Neuroimmunology and Stress Advances in Psychoneuroimmunology, Satellite Meeting of the 8th International Congress, Budapest, Hungary. In North America (204) 788-6320, In Europe 36-1-185-2255.

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