

The Newsletter of THE AMERICAN INSTITUTE OF STRESS

Number 9

1992

CALL FOR PAPERS

FIFTH INTERNATIONAL MONTREUX CONGRESS ON STRESS

February 14 - 19, 1993

GRAND EXCELSIOR HOTEL, MONTREUX, SWITZERLAND

The recipient of The Hans Selye Award will be Professor Lennart Levi, Chairman of the Department of Stress Research at Karolinska Institute, who, with members of his group, will provide an update on their important research on the adverse health effects of Occupational Stress. Plenary Sessions will be devoted to Stress and the Gastrointestinal Tract, Stress and Cholesterol (the effect of emotional and psychological factors on serum lipid levels), Diet, Cholesterol and Coronary Heart Disease ("The French Paradox"), Stress and Pain, Post Traumatic Stress Disorder, Oriental Approaches to Stress Reduction Workshop, Stress in Physicians and Health Care Professionals, Stress and Sudden Death, as well as additional presentations dealing with Job Stress, Psychosocial Stress and Health, Hardiness and Health etc. Selected papers will be published in *Stress Medicine*, and/or *Integrative Physiologic and Behavioral Science*, the published Proceedings of the Congress, and abstracted in *The Newsletter of The American Institute of Stress*. Send 100 - 250 word abstract to Paul J. Rosch, M.D., President, The American Institute of Stress, 124 Park Avenue, Yonkers, NY 10703. For further information, call Lisa Frugis, Director of Communications, (800) 24-RELAX, (914) 963-1200, or FAX (914) 965-6267, (914) 377-7398.

The Stress-Mood-Food Connection

WHY DON'T DIETS WORK?

Almost everyone has been on a diet at one time or another for some weight related problem. Most of the 34 million obese Americans are yo-yo dieters, 95 per cent of whom eventually regain most or more weight than they ever lose. Stress is a major contributor to obesity in many ways, but regaining all the weight you worked so hard to lose is especially stressful and depressing. It is particularly embarrassing if you look like a blimp, and then bump into someone who previously complimented you on your ability to get rid of those ugly excess pounds.

However, yo-yo dieting is far more than a cosmetic issue. Considerable evidence suggests that it can cause a variety of health problems and even shorten your life. One study of over 30,000 individuals followed for 30 years revealed that yo-yo dieters had almost double the risk of developing or dying from heart disease than controls. Recurrent yo-yo weight loss and gain also makes it progressively difficult to shed those extra pounds the next time you try.

A major problem is that most of us rush into some crash diet or weight loss program for the wrong reasons

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

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

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and at the wrong time. Usually it's the result of a sudden urge to be able to fit into a particular article of clothing, or to impress people we haven't seen for a long time at some reunion. Such short term efforts rarely produce lasting benefits, and when repeated frequently can prove harmful. The secret in proper dieting is not in taking pounds off, but in keeping them off. The only way to achieve this goal is by being properly motivated to make a long term commitment. That includes understanding why, what, and how much we tend to eat at certain times. An understanding of the role of exercise and nutritional needs is important, but not as much as an appreciation of the crucial role of stress. Many individuals overeat when they feel anxious, depressed, lonely, or angry, and we are learning a lot more about the reasons for this. People under stress also tend to eat when they're not hungry, and even if they are, they usually eat so rapidly that there is not enough time for appetite centers to be satisfied.

Not being able to stick with a diet is often the result of stresses that stem from work or family problems. That is why various nationwide diet plans are increasingly including and emphasizing a behavioral component in their programs to help participants recognize and cope with stress in their lives.

WHY DO WE EAT CERTAIN FOODS?

Why some individuals tend to overeat or crave certain foods, is also often stress related. It's commonly believed that fat females reach for something sweet when they're under stress, and this has now been

confirmed. This may seem paradoxical since stress elevates blood sugar and lowers insulin levels, which theoretically should reduce craving for sweets. However, stress induced changes in the levels of serotonin and other chemical messengers in the brain may help to explain this. Serotonin tells the body when sufficient sugar and carbohydrates have been consumed, and binge eaters have particularly low serotonin levels. Vasopressin is a pituitary hormone that is released during stress and causes water retention. However, it has also been found to prolong memory for learned associations. Vasopressin spinal fluid levels are increased in bulimia nervosa, a disorder characterized by repeated bouts of binge eating followed by self-induced vomiting or laxative use. This may be due to a preoccupation with body image and the distorted perception of being overweight. Bulimic patients associate this with a need to lose weight by vomiting or using laxatives after an eating binge, and this becomes a conditioned reflex that increased vasopressin reinforces, so that it eventually becomes an ingrained pattern. Patients with anorexia have a similar distorted body image, often starving themselves because they perceive that they are grossly overweight, when in reality, they are actually painfully thin.

Fifty-five percent of young teen age girls also believe they are overweight, although only 13 per cent are above normal standards. In one large survey, more than half had been on a weight loss diet in the past year and more than ten per cent admitted having fasted completely for at least one or more days. The vast majority reported that they could stick to diets for only a few days, and that they were rarely effective. In many cases, their eating problems were stress related, often because they were under some unusual pressure from an overly concerned obese parent, fearful that their daughter would eventually look like them.

THE LOW SUGAR-PMS-SAD LINK

There are many more important links between stress, mood, and food that offer great potential for learning how to lose weight and keep it off. Patients with hypoglycemia or low blood sugar often complain of fatigue, depression, and a craving for carbohydrates. These symptoms are aggravated by stress, and are most apt to occur and intensify in the late afternoon or evening, when there is less sunlight. These same symptoms occur monthly in patients suffering from premenstrual syndrome (PMS), and yearly during the late fall and winter months in individuals with Seasonal Affective Disorder (SAD). SAD symptoms result from lack of adequate exposure to sunlight, and can be significantly alleviated by additional exposure to ultraviolet light during the winter months, or by moving to

a latitude where daylight lasts longer. The real incidence of SAD is not known, but a recent survey of New Yorkers revealed that almost half reported weight gain, and a third required extra sleep during winter months. Bipolar depression or manic depressive illness is also influenced by light, and manic episodes tend to occur more often during days when there is maximal sunlight. Lithium, which is used to prevent manic attacks, probably works because of its ability to decrease sensitivity to light. What is particularly interesting is that the symptoms of PMS are also usually worse during the winter months, and that carbohydrate craving is common both in patients with PMS and SAD, especially when there are less sunlight hours.

It now seems clear that all three of these daily, monthly and yearly disorders have a common origin related to altered melatonin and serotonin secretion. Melatonin is a hormone that is secreted by the pineal during the dark. Levels are about five to eighteen times higher late at night, compared to measurements at noon, since sunlight inhibits secretion. When some individuals are deprived of adequate sunlight, melatonin levels rise, and they develop symptoms similar to those seen in SAD, PMS, and patients with carbohydrate craving obesity. Injections of melatonin in healthy subjects cause drowsiness, depression, difficulty in concentration, and occasionally craving for sweets. In Tromsø, Norway there is no sunlight from November 25th to January 21st, a part of the year the natives call "the murky time". During these two months, around 25% of the population have significant complaints of insomnia, depression, fatigue and changes in appetite due to their marked disturbance in melatonin secretion.

NEUROTRANSMITTERS AND NEW DRUGS

Uncovering further links between the role of various brain neurotransmitters and appetite and food preferences, as well as mood and behavior, is providing greater insight into why certain individuals remain overweight. More importantly, it offers the potential for the development of an army of medications that may be selectively effective for different types of problems. For example, serotonin, which has important effects on mood and sleep, is influenced by carbohydrate intake and blood sugar levels. When serotonin levels rise, the desire for carbohydrates and sweets is suppressed. The appetite suppressant drug fenfluramine not only reduces carbohydrate craving, but has been found to be useful in relieving symptoms of PMS, SAD and depression. These effects are nullified by serotonin blocking drugs. Conversely, serotonin antidepressant medications often promote carbohydrate consumption and weight gain. It is believed that many people eat large amounts of carbohydrates in an attempt to im-

prove their mood by stimulating production of serotonin. This has led to the design of dexfenfluramine, a drug which increases serotonin production, and trials in humans will shortly be under way.

THE STRESS-MOOD-APPETITE LINK

There are numerous other players and/or instruments in the stress, mood, appetite band. Histidyl-proline diketopiperazine, also known as Cyclo [hispro], is a neuropeptide whose levels increase in the blood following food consumption. In animal studies, an injection can suppress appetite for up to twelve hours. Neuropeptide Y encourages appetite for carbohydrates, and levels rise in the early morning, possibly to encourage carbohydrate intake to provide quick energy. They fall after eating, when another neuropeptide called galanin starts to increase, which stimulates appetite for fat. These various neuropeptides seem to have their own daily rhythms which may explain why most of us don't crave fat in the morning, but our appetite for it increases as the day goes on. This may have important implications with respect to the timing of certain medications.

Other members, of what is rapidly growing into a full fledged orchestra, include ACTH, dopamine and cholecystokinin. ACTH, which is produced in the pituitary, is the premier stress hormone, stimulating the release of cortisone-like hormones from the adrenal cortex. These increase appetite and also cause weight gain because of salt and water retention. Dopamine is a brain neurotransmitter that decreases appetite for fat and protein, and some of the drugs used to suppress appetite act by stimulating dopamine production. Cholecystokinin suppresses appetite for fat and carbohydrates, and is also found in the gut and mouth, where taste is perceived. In the not too distant future, it is conceivable that we will have cocktail combinations of various neuropeptides and/or medications designed to stimulate or suppress their activities which will be administered at different times during the day.

WHAT IS THE NEXT STEP?

Equally promising are new advances in stress reduction strategies that may have powerful effects on mood, behavior, appetite, and the ability to adhere to a dietary regimen. In any event, it has become increasingly clear that obesity and a variety of eating and emotional problems are closely linked to one another, and to stress. We now appreciate that the links in this chain are forged by alterations in a variety of brain neuropeptides, and chemical messengers.

The next step in the treatment of obesity and eating disorders must therefore be to approach them from the

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standpoint of influencing the activities of these stress related neurotransmitters that modulate mood and behaviors, rather than a simplistic caloric intake approach which offers only short term rewards, and could eventually prove harmful.

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

"What is food to one, is to others bitter poison. Part of the secret of success in life is to eat what you like and let the food fight it out inside."

Mark Twain (1835-1910)

Bungee Jumping and Stress Hormones

Marathon running and extremely stressful events have been shown to be associated with increased endorphin secretion, which may explain the decreased sensitivity to pain and/or euphoria, sometimes experienced during such situations. To study this further, an enterprising German physician engaged in three, free fall jumps from a 60 meter platform, with a rubber tube affixed to his legs at a bungee jumping facility. Blood samples were obtained via an intravenous line and a battery run pump covering the period prior to the first jump, to 90 minutes after the third. Levels of beta-endorphin, growth hormone, cortisol, prolactin, testosterone, LH, and FSH were monitored, and pain thresholds were assessed at periodic intervals. In addition, his personal evaluation with respect to mood and self perception of the event were recorded on videotape. Ten minutes prior to the last jump he received an intravenous injection of Naloxone, an endorphin antagonist.

Pain thresholds were found to increase five minutes after each jump, and returned to baseline within 10 minutes. Euphoria was reported immediately after the first jump, and this lasted for several hours, although it was slightly diminished following the administration of Naloxone. Despite this, no significant change in endorphins or other stress hormone levels were found except for cortisol, which increased during the jumping period. However, it would seem that there was apparently an increase in central opioid activity in view of the elevation of pain threshold and its attenuation by Naloxone. This was not associated with any rise in endorphins, and emphasizes the observation that experimental situations which cause severe stress may not always be accompanied by hormonal alterations that can explain these effects.

Lancet, 8/15/92

Teddy Bears For Stress?

Frequent business travel can be extremely stressful, and some workers have found innovative ways to combat the problem. One executive who travels more than one day out of every three used to take along a tiny pillow with a heart sewn on it, but it got to the point where it was "too tattered to use". He believes that "people who travel a lot need things that remind you of home. You need that security". He now carries an amethyst given to him by his wife which he claims is a "stress reliever", since he can rub it during tense situations. A spokesperson for one New York hotel which caters to business travelers, says that the house-keeping staff regularly digs through mountains of sheets "to retrieve teddy bears or tattered blankets" owned by grown-up travelers who become bent out of shape by their sudden disappearance. Corporate guests at a Washington hotel near the White House often bring along night lights that they used as children to keep the *bogey man* away. Of course, children commonly carry "security blankets" and other familiar objects with them when they are away from home. Prince Charles of Britain travels with a teddy bear so ancient that the Queen Mother had to repeatedly sew back its velvet feet to maintain its dignity. According to a Royal Family biographer, "when the Prince travels abroad, his valet places *Teddy* in a plastic shirt bag and takes him with the entourage".

Few adults will admit to still having teddy bears, and if they do take something from their childhood along during their travels they would not be likely to let anyone else know about it. However, one public relations executive always travels with her beige Teddy Bear named *Snuggles*, explaining, "It's a superstition. If I don't bring him, I get really upset".

USA Today, 8/3/92

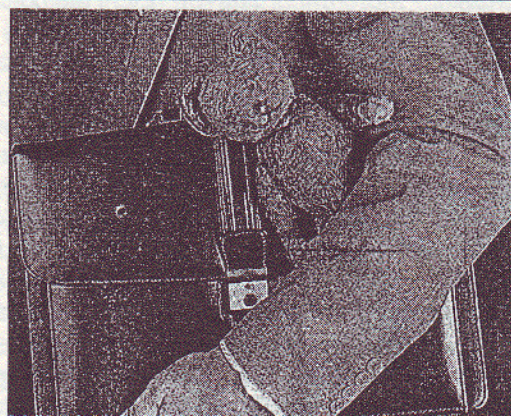


Photo by Susan Malone Joyner

More on Low Serum Cholesterol and Suicide

Several studies have found an increased number of violent deaths in individuals attempting to lower serum cholesterol through stringent diet and drug treatment. In an attempt to explore this relationship, Swedish investigators compared cholesterol levels with mortality statistics in almost 55,000 individuals who had undergone health screening procedures between 1964 and 1965. Information obtained from the National Registry of death certificates for the next two decades revealed a strong correlation between low cholesterol and mortality from violent injuries in men, but not women, during the first six years of follow up. Men with cholesterol levels in the lowest quartile had 2.8 times more deaths than those in the top. Most of these were suicides, which were 4.2 times higher in the lowest quartile group compared to the highest.

These findings are similar to several previous reports, but are difficult to explain. Some authorities have expressed concern that the current fanaticism in some circles to achieve the lowest possible cholesterol level by vigorous drug therapy may backfire. Cholesterol is an essential building block for all steroids and many other compounds in the body. Severe disruption in its synthesis could have unanticipated and harmful effects on chemicals that have important influences on mood, behavior, and brain function.

British Medical Journal, 8/1/92

"The only way to keep your health is to eat what you don't want, drink what you don't like, and do what you'd rather not."

Mark Twain

The Stress Reduction Effects of Social Support and Touching

Several studies have reported that blood pressure and heart rate is lowered in coronary care unit patients who have strong social support, and especially if they are patted and touched in a caring fashion. On occasion, this has been demonstrated even in unconscious individuals. In an attempt to study the effects of social support on cardiovascular reactions to stress, 60 healthy undergraduate females were assigned to one of the following groups: alone (A); friend-present-touch (FT); friend present-no touch (FNT); stranger present-touch (ST); and a stranger present-no touch (SNT). Heart rate, blood pressure measurements were obtained at baseline and during two stressful behavioral challenges. The researchers found that neither the presence of a stranger or physical touch had any significance on

blood pressure or heart rate changes. The only significant reduction in cardiovascular hyperactivity due to stress was seen when a friend was present. It is not known whether the same results would be seen in patients with coronary heart disease, hypertension, Type A behavior, or those who are lonely or socially isolated. However, the study does confirm the important stress buffering role of social support, even in young healthy individuals.

Journal of Psychosocial Nursing and Mental Health, 4/92

Hypnotizing the Bowel?

It is well known that emotions can affect the gut, and various GI disorders including peptic ulcer, ulcerative colitis, and Irritable Bowel Syndrome are thought to be stress related. Possible mechanisms of action include disturbances in gastrointestinal secretions, and changes in the rhythm or intensity of normal peristaltic contractions. To investigate this further, English investigators studied 18 patients with refractory Irritable Bowel Syndrome of at least two years duration. A colonic catheter was inserted in each patient to monitor intracolonic pressure changes at several locations in the large bowel. After baseline measurements had been obtained, the patients were hypnotized, and then underwent random fifteen minute periods of either peaceful relaxation, or marked emotional excitement as a result of induced anger or fear. The catheter was able to record both the frequency and amplitude of colonic contractions, and these measurements were combined to calculate a motility index.

It was found that the induction of a hypnotic state by itself resulted in an almost twenty percent decrease in the motility index over resting values while awake. Anger and excitement markedly increased this index, and heart and respiratory rates were similarly elevated. When hypnotized subjects were placed in a happy, relaxed state, colonic motility indices fell to their lowest levels. Almost the entire influence on the motility index resulted from changes in rate, rather than the force of colonic contractions.

This study confirms the powerful effect of emotions on gastrointestinal activity and particularly colonic function. It also supports the view that Irritable Bowel Syndrome is a stress related disorder, and suggests that stress reduction techniques as well as appropriate post hypnotic suggestions might provide benefits.

"Psychoanalysis is confession without absolution."

G. K. Chesterton

Hostility, Risk Factors and Heart Disease

In the past few years there have been an increased number of articles demonstrating relationships between hostility and a variety of coronary events. Most measure hostility using the Cook-Medley Hostility Scale (Ho Scale) which is derived from the Minnesota Multiphasic Inventory. There are abundant records available, inasmuch as the MMPI has been in use for more than 50 years, and has been routinely administered to tens of thousands college students, Civil Service personnel, employees of large corporations, etc. It has been suggested that certain Ho subscales which measure cynicism, hostile affect and aggressiveness are superior predictors of coronary mortality than the total Ho score. However, critics point out that hostility, like Type A behavior, is best evaluated by personal observation, rather than any self report questionnaire. In addition, the Ho Scale correlates not only with coronary deaths, but with deaths from all causes, including cancer. Some authorities suggest that it may really be more of an assessment of social support and psychopathology, rather than true hostility.

In a recent study involving 138 adult men and women, an attempt was made to examine the relationship between hostility, and lifestyle and risk factors for coronary heart disease. In addition to completing the Ho Scale, subjects provided self report information about dietary habits, consumption of alcohol and cigarettes, and physical activity, and measurements were made of blood pressure, height, weight and adiposity. The Ho subscales noted above, as well as the total Ho Score were used as a composite measurement of hostility, and in both men and women this was found to be positively associated with cholesterol intake. In women, both hostility measurements correlated positively with animal fat intake, and higher blood pressures, and negatively for fiber intake. In men, both hostility measures were positively related to cigarette smoking, sugar intake and hypertension.

These findings would seem to suggest that increased

hostility correlates positively with standard risk factors for coronary heart disease and negatively for influences that presumably have cardioprotective effects. The inference would be that perhaps these are the mechanisms by which hostility may produce coronary heart disease. However, there is considerable evidence to suggest that cigarette smoking, hypertension, and modest elevations of cholesterol are more apt to be associated with, rather than the causes of heart attacks. High Ho scores may similarly simply reflect an association with some other psychosocial or behavioral factors that actively contribute to coronary heart disease.

Behavioral Medicine, Vol. 18, p. 21-26, 1992

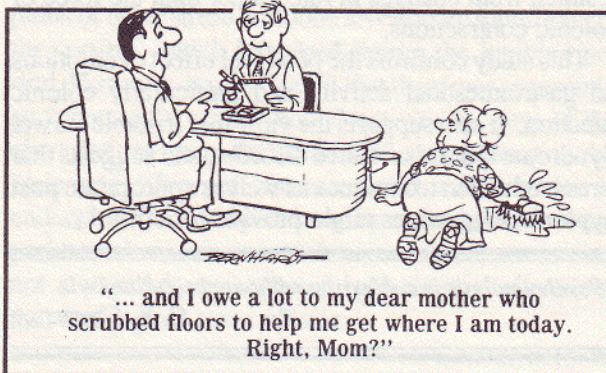
"The brain may devise laws for the blood, but a hot temper leaps o'er a cold decree."
William Shakespeare

Stress and Breast Cancer

Numerous reports suggest a link between stress and breast cancer, both in animal studies and clinical observations. The mechanisms of action are obscure, but may be due to stress-related hormonal changes or suppressed immune system function. While stress may be an important factor in certain patients, one needs to be cautious about going overboard. There is evidence that stress reduction strategies may improve survival in breast cancer patients, but there is also the danger that many individuals who are already guilt ridden, may be further burdened by the implication that they have developed cancer because of some deficiency in their character or personality that renders them more susceptible to stress. This is especially true for those patients who fail to respond to therapy.

To address this, more than 200 women were followed for 3 1/2 years after initial surgery for breast cancer. They were examined and interviewed 24 and 42 months later, at which time an assessment was made of life stress events, social difficulties and depression. Twenty seven patients died during the study period, and cancer recurred in forty seven. Increased psychosocial stress was not associated with relapse, and in some instances, there appeared to be an inverse relationship with respect to life change events. Thus, all of the 13 patients who had experienced the death of a first-degree relative remained well, whereas relapses tended to occur in many who had described their lives as quiet, content, and non-stressful. The strongest predictor of relapse was axillary node involvement at the time of surgery. Younger age groups and those with larger tumors also appeared to be a greater risk for recurrence. This study should provide some consolation and relief for breast cancer patients and their relatives who are fearful that emotional trauma may cause a relapse.

British Medical Journal, 4/25/92



Social Support and Immune System Dysfunction

A number of studies have shown that stress can depress or impair many parameters of immune system function. This is particularly evident in individuals suffering from the stress of loneliness or social isolation. Conversely, a strong social support system has been shown to provide a powerful buffer against stress. To examine this further, researchers studied immune responses in monkeys subjected to long term social upheaval. They found that those whose lived in groups that continually lost established members, but replaced them with new recruits, experienced marked stress. This was associated with a significant decrease in immune system defenses. However, those animals who were able to cultivate social bonds with their peers under these difficult conditions, did not show this deterioration in immune system capability.

43 health adult male monkeys were housed for 14 months in unchanging groups of 4 or 5. They were then randomly assigned to either an unstable group in which 3 or 4 monkeys departed each month to reside with

another group, while 22 remained with the same group. They were followed carefully over the next two years. Social support or "affiliative" behavior was measured by weekly observations of activities such as friendly touching, or grooming of another animal, an activity which would be designed to promote friendship and lessen social stress. High levels of this type of behavior were seen in 14 animals living in the unstable group, compared to only 8 in the stable group. Immune system function measurements obtained 3 weeks after the conclusion of the study revealed much more impairment in monkeys from unstable groups. This was most pronounced in those unstable group members who had engaged in few affiliative gestures to reduce the stress of repeated societal changes. It is not clear how these studies apply to humans, but this model does seem to offer unusual potential for investigating immune system responses to psychosocial stress.

Science News, 10/10/92

Can Behavioral Therapy Change Brain Function?

Patients with obsessive-compulsive disorder are plagued by unpleasant, unwanted and senseless thoughts, about hygiene, personal safety, and on occasion, violence and sex. They often feel compelled to respond to these thoughts, although they do not derive any enjoyment or reward from doing so. The condition affects one out of every forty people, and seems to be more common in patients with diabetes and asthma. It is believed that a specific brain circuit is involved in obsessive-compulsive disorder, and this originates in the frontal cortex, just above each eye. This is an older part of the brain that is involved with emotions such as anger and worry, and where unconscious thoughts may arise involving disgust, aggression, and sexual or violent urges. Nerve fibers carry these unwanted signals to other centers in the brain where they are normally filtered out, so that only significant thoughts break through. In obsessive-compulsive patients, this filtering mechanism is disturbed, and normally repressed thoughts begin to flood the system. Positive emission tomography (PET) scanning studies confirm increased metabolic activity along the path of this circuit in patients with obsessive-compulsive disorder, when compared to normal people. The condition has been found to improve following the administration of antidepressants like Prozac, which appears to interrupt the increased signals flooding this pathway, and as patients get better their PET scans return to normal.

A recent report now suggests that behavioral therapy can also accomplish this. Two groups of nine patients

were followed for ten weeks with PET scans before and after treatment. One was given Prozac, and the other met twice a week with a behavioral therapist who taught them to recognize each obsession for what it was, acknowledge it, and learn to accept the urge, without acting on it. Thus, those people who feared contamination and washed over and over, were made to tolerate filthy dirt on their hands for at least an hour each day. Over the course of treatment, the urge for compulsive hand scrubbing progressively diminished. At the end of the ten week period, seven of the nine people treated with drugs, and six of those undergoing behavioral therapy, showed significant improvement in their previously abnormal PET scans. Those who made the best progress also had the greatest PET scan changes. The five patients who failed to respond to either treatment had no significant changes in their PET scans.

This study appears to confirm that abnormalities in a specific neural circuit are responsible for obsessive-compulsive disorder. This is the first time however, that it has been demonstrated that successful behavioral therapy can produce permanent changes in brain function.

New York Times, 9/16/92

"As the brain changes are continuous, so do all these consciousnesses melt into each other like dissolving views. Properly they are but one protracted consciousness, one unbroken stream."

William James

Book Reviews • Meetings and Items of Interest

Book Review

Discovering the Power of Self Hypnosis,
Fisher, Ph.D., Stanley, Harper Collins Publishers, Scranton,
1991, \$19.95.

Although there are descriptions of hypnotic and trance-like states recorded in ancient writings and the Bible, modern medical hypnosis originated with the eighteenth century Viennese physician, Anton Franz Mesmer. He believed that he was able to put individuals into a trance and cure various ailments because of the power of his own animal magnetism. Mesmerism, the name given to his technique, rapidly spread to other parts of the world. In the United States, Phineas Quimby became famous for his successful treatment of a bedridden invalid, Mary Baker Eddy, who later founded Christian Science. The term, *hypnotism*, which comes from the Greek word for sleep, was coined by James Baird, an English physician. Baird's important contribution was the demonstration that the procedure actually owed its success more to the patient's susceptibility to suggestion which facilitated a dissociation from the immediate milieu, rather than some unique power of the hypnotist. Subsequent classical stress reduction approaches such as Schultz's Autogenic Training, and Jacobson's Progressive Muscular Relaxation, were also based on teaching subjects how to attain a detached state by recreating sensations similar to those they had spontaneously reported just prior to entering a trance during the induction hypnosis.

Self hypnosis and trance states are surprisingly easy for individuals to achieve, and most of us have experienced this phenomenon when daydreaming. There are numerous misconceptions about hypnosis which this book compellingly dispels, including the common belief that the subject is under the control of the hypnotist, that a hypnotist is necessary to produce a trance, or that it represents some mystical experience or form of sleep. As this book emphasizes, all hypnosis is actually self hypnosis, and the subject is always in control. In contrast to sleep, individuals are hyperalert and also capable of more focused concentration. Dr. Fisher has had a vast experience in the use of hypnosis to successfully alleviate such problems as performance anxiety, depression, phobias (fear of flying), smoking, eating disorders, and particularly, the lessening of post-operative pain. His instructions are extremely easy to follow, there is no expense or downside, and the potential benefits are enormous with respect to relief of stress related symptoms. However, it is also highly recommended for anyone interested in improving their performance and overall quality of life.

Meetings and Items of Interest

November 12-14 Harvard Medical School-Dept. of Continuing Education - Psychotherapy and Medical Illness, Hyatt Regency Hotel, Cambridge, MA Contact: (617) 432-1525 M-F 10 am to 4 pm (Eastern Time)

November 13-15 Biofeedback and Behavioral Medicine Across the Ages, Monterey, California, Biofeedback Society of California, 18th Annual Meeting, 415-459-1750.

November 13-15 Ohio State University Hospitals Center for CME - Anxiety Disorders, Fawcett Center for Tomorrow, Columbus OH (800) 492-4445

November 13-15 University Hospital Mood Disorders Program; Sehon Buchanan Medical Media - Psychiatric Update for Physicians: Depression, Anxiety Disorders, Psychosomatics, Brief Counseling Techniques, Four Seasons Hotel, Vancouver, BC, Canada, (604) 922-3570

November 13-15 The Healing Spirit in Relationships: 12th Annual Common Boundary Conference, Washington, D.C., Common Boundary, 301-652-9495; fax: 301-652-0579.

November 19-22 Association for Advancement of Behavior Therapy, Boston, MA (212) 279-7970

November 19-22 American Psychological Association-National Institute for Occupational Safety and Health Conference on Occupational Stress-"Stress in the 90's: A Changing Workforce in a Changing Workplace", Washington D.C. Contact Sonja M. Preston (202) 336-6038

November 20 University of Pennsylvania Medical Center Dept. of Psychiatry -Cognitive Therapy - Sheraton Society Hill, Philadelphia, PA (215) 662-7112

November 20-22 University of Chicago School of Medicine - The Psychiatric Interview, Forum Hotel, Chicago, IL (312) 702-1056

November 29-December 3 Imagery, Spirituality and Healing, Maui, Hawaii, Joan Borysenko, Myrin Borysenko, Rachel Naomi Remen, Christina Grof, Stan Grof, Martin Rossman and David Bressler, Academy for Guided Imagery, 415-389-9324 or 800-726-2070.

December 9-12 The National Institute for the Clinical Application of Behavioral 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

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