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Psychological Factors and AIDS

Psychological factors may have an effect on immune function in AIDS patients, according to a study in the current issue of the journal *Brain, Behavior and Immunity*. Researchers at Boston University School of Medicine (BUSM) conducted a pilot study of AIDS patients who were doing well and whose approach to healing included a vegetarian diet and a healthy lifestyle.

The researchers evaluated the psychological makeup of nine AIDS patients who were part of a larger group of 19 patients who had unexpectedly shown an increase in lymphocyte counts in the first two years after diagnosis of Kaposi's sarcoma. All of the patients followed a macrobiotic regimen. The BUSM researchers chose to study psychological factors because they suspected that patients following a macrobiotic regimen may express unique psychological characteristics. A group of healthy men who followed a macrobiotic regimen was studied for comparison.

In general, the AIDS patients studied had improved immune measures, decreased mood disturbances and increased vigor, leading researchers to conclude that emotional-state and personality-trait measures had strong associations with immune measures that are important predictors of how AIDS is progressing. "This pilot study suggests that we need to look further into the role of the psyche in AIDS," says Elinor Levy, Ph.D., an associate professor of microbiology at BUSM. "Mood and personality traits may be important cofactors that determine when someone who is infected with the virus will progress to AIDS." The study was too small to draw firm conclusions. Levy adds that further research is needed to design psychological and behavioral interventions for HIV-infected people.

Echocardiography—Effective Monitor During Bypass Surgery

In the first study to use computer analyses of echocardiograms taken right before and after coronary artery bypass grafting (CABG), surgeons at the University Hospital (UH) found immediate improvements in the function of damaged areas of the heart not detectable in the traditional visual analysis. Reported in the *Journal of Thoracic and Cardiovascular Surgery*, the study not only confirms that CABG can cause immediate changes in heart function, it also lends support for the increasingly popular use of echocardiography for monitoring open-heart surgery in the operating room.

Previous studies using visual analysis of echocardiography—which views the heart in many distinct sections and measures heart-wall movement in any one of those sections—have shown that it is more sensitive to changes in heart function than standard methods, such as EKGs, that give more general information.

To test the effectiveness of echocardiography during surgery, Harold Lazar, M.D., a cardiothoracic surgeon at UH, compared echocardiograms of 17 patients taken 30 minutes before placing the bypass grafts and 30 minutes after. He visually noted immediate improvement in heart-muscle contraction, especially in areas damaged by previous heart attacks. Later, when he and his colleagues did computer analyses of the same echocardiograms, they found even more significant improvement.

Lazar says that intraoperative echocardiography will ultimately improve the precision of CABG, since its detailed and immediate feedback will help surgeons make on-the-spot judgments about and modifications to their work. He adds that this study will provide new impetus for developing currently unavailable technology for on-line computer analyses of echocardiograms in the operating room.

(more)



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Surviving the Holidays—Coping With Dysfunctional Families

Everywhere one looks—whether at advertisements, movies or greeting cards—the message is the same: Holiday celebrations are a time for loving families to gather together. Yet dissatisfaction with family interactions is one of the major causes of depression during the holidays.

Even those who are happily married and have supportive friends may experience loneliness during the holidays, because they long for something they don't have—fulfilling relationships with their parents and siblings. According to **David Leiman, M.D.**, an assistant clinical professor of psychiatry at Boston University School of Medicine, people often have unrealistic hopes that the holidays will inspire estranged family members to come together or that long-standing problems instantly will be resolved. "When these dreams aren't fulfilled, people may respond with disappointment, anger, frustration or resentment, which can exacerbate problems. Then, instead of receiving the love and support of family members, they drive them further away," says Leiman.

Leiman says there are ways to cope during the holidays. He suggests that people realistically assess the dynamics occurring in their families and their role in them. Some questions they can ask include: What is the real problem? Have I been open in my communication? Have I been willing to compromise? Do I have reasonable expectations based on the people involved?

For those who want to improve their family relations, Leiman advises focusing more on the positive aspects of each family member, complimenting as well as criticizing during discussions or disagreements, empathizing with family members, spending time nurturing the relationships they value and offering a sense of support.

When family differences appear to be irreconcilable, Leiman says it is important for people to accept and come to terms with the situation and to find other people with whom to share their lives.

Trimming the Fat From The Holidays

You can eat, drink and be merry without gaining weight this holiday season, according to **Robert H. Lerman, M.D., Ph.D.**, chief of the Department of Clinical Nutrition at the University Hospital. Just follow these simple guidelines.

If you know a party will have treats you can't resist, eat less at earlier meals to save calories. However, don't go to a party hungry; have a piece of fruit on the way to take the edge off your hunger. When you arrive at the buffet table, make a calorie assessment of the entire array, and decide which foods you will have before filling your plate. Lower-calorie food choices include fresh fruits and vegetables, simple breads, fish and skinless white poultry. Consider bypassing the higher-calorie foods, such as fried foods, red meats, cheese, cheese sauces, cheese-based casseroles and oil-based salads and dips. Fill up on lower-calorie foods before hunting for dessert.

Calories can add up quickly with beer, cocktails, eggnog and regular soft drinks. Choose mineral water mixed with fruit juice, lemon or lime, or one of the new sparkling ciders instead of alcohol or regular soft drinks. If you want an alcoholic beverage, try a wine spritzer rather than straight wine.

Finally, work off extra calories after the party by taking a brisk walk. But be realistic. It is nearly impossible to walk off an entire day of overindulging. Remember: your daily diet and regular exercise are more important in maintaining body weight than intake at an occasional party.

Current Research in Spinal-Cord Injury

Spinal-cord injuries produce some of the most devastating disabilities in our society. Not only are its victims severely limited neurologically, but their families also are often affected emotionally and financially. Although there is little that can be done to reverse the neurological deficit, current research now being conducted at Boston University Medical Center is focusing on preventing further irreversible damage, facilitating early neurological recovery and preventing later complications.

According to **Joe I. Ordia, M.D.**, an associate professor of neurosurgery at Boston University School of Medicine, this research includes studying the effect of hemodynamic changes following spinal-cord and central nervous system injury; determining the best time for surgery to prevent further neurological deterioration; new surgical procedures for specific fractures and extension injuries of the cervical spine; and treatment of later complications of the injury.

Cold Weather Hives

With the onset of cold weather and holiday-related stress, hives can make an unexpected and unwelcome appearance. Hives often are triggered by allergic reactions to drugs or certain foods, including dairy products, shell fish, nuts and food additives. Emotional stress or such physical factors as exposure to cold, heat or sunlight, also can cause the characteristic red, itchy bumps, according to **Amal Kurban, M.D.**, a dermatologist at the University Hospital. Non-allergic hives can result from sweating after vigorous exercise or abrasive material rubbing against the skin. Cool baths offer relief, especially with added starch or menthol. Kurban also recommends avoiding the causative food or drug, if known, and relaxing to alleviate tension and stress that aggravate hives. If hives persist, consult your physician, who can prescribe antihistamines to relieve symptoms.