Ginkgo biloba improves mood, but only helps mental function in people with cognitive disorders

Budapest, Hungary - Ginkgo biloba may help improve your mood, but only helps mental function in people with cognitive disorders. As presented at the American Psychosomatic Society Annual Meeting, a comprehensive review of controlled studies revealed that ginkgo could be an effective treatment for cognitive problems seen in the elderly, but does not seem to affect memory in healthier people. Ginkgo does seem to have positive effects on mood, regardless of your age or cognitive health.

Ginkgo biloba is a common herb used in the treatment of peripheral vascular disorders and poor cognitive functioning. Many healthy people also take ginkgo supplements hoping they will improve their memory. However, researchers continue to debate whether ginkgo improves memory in healthy adults. It is also unclear, how ginkgo might work to improve memory.

Most ginkgo research has focused on treatment of cognitive disorders like Alzheimer's disease. Relatively few studies have considered how ginkgo affects memory in healthier adults. Dr. Kaki York and a team of researchers at the University of Florida and the University of Southern Mississippi performed a comprehensive analytical review of ginkgo in both cognitively impaired and healthy adults. The results of these forty-five studies were combined to give an overall view of ginkgo’s effects. They found that ginkgo has the greatest effect on cognition in older adults with cognitive impairment. Ginkgo did not improve cognition in healthy younger adults. Interestingly, ginkgo did improve mood irrespective of age or cognitive impairment. Additionally, ginkgo was most effective when given in doses under 300 mg and administered for fifteen or more days.

# # #
Abdominal Obesity Increases Risk Of Depression

**Budapest, Hungary** - Older persons with a large abdomen are more likely to become depressed over time, irrespective of overall body size. Dr. Nicole Vogelzangs of the VU University Medical Center in Amsterdam, the Netherlands will present the results of a study on abdominal obesity and depression at the American Psychosomatic Society Annual Meeting in Budapest, Hungary.

Previous research already showed that a large abdomen, and more specifically, large amounts of fat around the organs in the abdomen (‘visceral fat’), increase the risk of cardiovascular diseases and diabetes. Since these diseases are often associated with depression and might share some of the underlying disease processes with depression, the researchers wanted to examine whether a larger abdomen also increases the risk of depression.

The study was conducted among 2525 Black and White older persons, aged 70-79 years, from Pittsburgh, Pennsylvania, and Memphis, Tennessee, who were followed for 5 years. During the first examination overall and abdominal body size were measured and computerized tomography (CT) scans of the abdomen measured amount and type of fat. At first, none of the participants was depressed. During the next 5 years, 21.5% experienced an depression. The risk of becoming depressed was larger for those with a larger abdomen. Specifically, high amounts of visceral fat increased the risk of subsequent depression. Interestingly, these findings were independent of overall body size.

The researchers conclude that high amounts of visceral fat, irrespective of overall body size, predict the risk of subsequent depression. These findings might give an explanation for the frequent co-occurrence of cardiovascular diseases and diabetes with depression.

###
Poor Sleep Quality independently predicts elevated plasma fibrinogen levels in patients with venous thromboembolic disease

**Budapest, Hungary** - How is your sleep? Recent findings suggest that poor sleep quality and difficulties in initiating sleep could influence blood clotting processes. This could have fatal consequences for patients with a venous thrombotic event (VTE).

It is well known that psychological factors affect blood clotting processes. Poor sleep has been shown to be associated with elevated fibrinogen levels. Plasma fibrinogen the precursor of the coagulum forming substance fibrin, contributes to heightened blood viscosity. In general terms, with more circulating fibrinogen, the blood becomes thicker. Recent research showed that poor sleep quality was an independent predictor of plasma fibrinogen levels in patients with thrombophile state. Especially patients with problems in initiating sleep may be endangered by a recurrent thrombotic event.

This conclusion is one important finding of the Bernese Venous Thrombosis study (conducted at the University Hospital Bern Switzerland), which investigates the influence of psychosocial effects on blood clotting processes. The results are to be presented at the American Psychosomatic Society’s Annual Meeting, held March 6-11 in Budapest, Hungary.

Patients with an objectively diagnosed spontaneous venous thromboembolism and no other risk factors were enrolled. Sleep quality was assessed by a questionnaire and plasma fibrinogen levels by a coagulometer. Analysing the data emphasized sleep quality as a predictor of the plasma fibrinogen levels. Further evaluation rendered initiating sleep alone as significant predictor for plasma fibrinogen levels.

Recapitulating, this finding suggests that poor sleep quality is an independent predictor of plasma fibrinogen levels providing one rheological mechanism by which the risk for recurrence of VTE could possibly increase. Possibly this provides a new purchase in preventing a reappearance.

# # #
Recent research suggests that it is better to listen to your heart...

Budapest, Hungary - It has long been known that somebody’s own emotions are recognized and identified through the process of interpreting inner bodily signals (heart beating, breathing, muscle tension etc.) according to the information, thoughts and memories come from the given situation. People who have difficulties in identifying expressing and describing their own emotional states are called alexithymic. They often has no words and thoughts to describe their emotional experience and usually are not able to distinguish between feelings and the bodily sensations accompanying feelings. Recent researches suggest that the core of alexithymia may be the deficient cognitive processing of emotional bodily signals and the consequent loss of the marker function of bodily sensations in the formation of the conscious experience and meaning of emotional states. Alexthymic people miss the inner mental means to regulate emotional states so a large amount of alexithymics suffer from mood disturbances, unexplained somatic symptoms and uncontrollable impulsive behaviors as eating disorders or substance abuse. On the other hand impulsive behavior (acting without considering the following consequences) is associated with the reduced activity and inappropriate use of bodily signals which indicate the emotional meaning of a situation and so help regulating emotional state and behavior.

People who proved to be alexithymic have difficulties in evaluating and regulating their emotions; they are more impulsive, anxious and are less able to regulate themselves so feel more intense positive and negative emotions and report higher emotional tension although their objective measurement of heart beating during emotional state does not indicate increased stress. There are conclusions drawn from a study investigating how alexithymia influence the usage of emotional bodily signals in emotional self regulation to be presented at the American Psychosomatic Society Annual Meeting held March 7-10 in Budapest, Hungary. The study reported by Károossy K. MD include the examination of personality traits of alexithymia, impulsivity, anxiety and self-control between healthy university students and the objective and subjective reports of emotional reactivity measured by heart rate and self-evaluating descriptions of feelings during emotion provoking slides.

Taken together, the results of the study suggest that alexithymic people overestimate their emotional bodily signals because objective and subjective measures of emotional tension and emotional reactivity are decoupled in alexithymia. This effect may be related to reduced self regulation and impulsivity.

###
Childhood Trauma Associated with Depression and Coronary Heart Disease

Budapest, Hungary - Childhood trauma, but not adult trauma, is strongly associated with depression and coronary heart disease in adulthood, say researchers presenting at the American Psychosomatic Society Annual Meeting, held March 7-10 in Budapest, Hungary.

“Little is known about the long-term emotional and physical consequences of childhood trauma and whether it poses greater long-term health risks than other types of stressors,” says study leader Viola Vaccarino, MD, PhD, professor of medicine (cardiology) at Emory University School of Medicine and professor of epidemiology at Emory’s Rollins School of Public Health. “Trauma occurring earlier in life is particularly harmful because it may disrupt the development of adaptive responses to stress. Future research on stress and disease should focus on early life stress.”

Dr. Vaccarino and her team studied 360 male twins (180 pairs) born between 1946 and 1956 from the Vietnam Era Twin Registry. All twins served in the military during the Vietnam era. The researchers looked at the relationship between past trauma and mental and cardiac health outcomes. Childhood traumatic experiences, before age 18, were measured including physical, sexual, emotional abuse and general trauma. Adult trauma, after age 18, was also measured and included general trauma and military trauma. The researchers also looked at lifetime major depressive disorder and posttraumatic stress disorder, as well as medical disorders through health history by a clinician.

According to the study results, twins in the highest quartile of the Early Trauma Inventory were twice as likely to have major depressive disorder than other twins. Of the childhood trauma, emotional trauma was the most strongly associated with major depressive disorder. Study participants with childhood trauma were also more likely to be exposed to trauma as adults and to develop posttraumatic stress disorder. After adjusting for smoking, twins in the highest group on the inventory were two to three times more likely to have a previous diagnosis of coronary heart disease, including previous myocardial infarction, coronary revascularization, and hospitalizations for coronary heart disease. In contrast, no significant associations were found for adult general trauma and combat trauma with either major depressive disorder or coronary heart disease, notes Dr. Vaccarino.

Dr. Vaccarino’s team includes Jack Goldberg, Seattle ERIC/VET Registry, University of Washington, Seattle. Wash; Carisa Maisano, Olga Novik, Nancy V. Murrah, Linda Jones, Rocky Buckham, and Emir Veledar, in the Department of Medicine, Emory University; and Farhan Jawed and James D. Bremner, in the Department of Psychiatry and Behavioral Sciences, Emory University, Atlanta, Ga.

###
Lifetime Depression and Post-Stroke Depressive Symptoms as Predictors of Mortality at 3 months post stroke

**Budapest, Hungary** - Depression is bad for your heart and your brain. Recent studies have shown that clinical depression raises the risks for early death after both heart attacks and strokes. This week at the annual meeting of the American Psychosomatic Society in Budapest, Hungary, a new study from the University of Cincinnati’s Department of Neurology and Psychiatry tells us more precisely what kinds of depression lead to early death after a stroke.

This study assessed both current depressive symptoms and the patient’s history of previous depression from interviews and chart reviews within days after the stroke in 501 people in 2005-6 in the Cincinnati region. Then the investigators examined what contributed to death within the next three months.

According to Lawson Wulsin, MD, Professor of Psychiatry and Family Medicine at the University of Cincinnati, and first author of the study, “the best measure of depression for predicting early death after stroke was the combination of current depressive symptoms and a past history of depression. Patients who had both current and past depression had two and a half times increased risk for death within three months.”

This study aimed to examine one of the limitations of previous mortality research on depression and stroke. Most stroke mortality studies have only assessed current symptoms of depression at the time of the stroke. This new study shows that focusing only on current symptoms underestimates the true risk for early death after stroke. Dr Wulsin and his colleagues note that both research and good clinical care should include carefully assessing both current and past depression in patients at risk for stroke.

# # #
Budapest, Hungary - Coronary artery bypass grafting (CABG, often called "cabbage") is the most commonly performed open heart operation in the United States. The surgery reroutes, or "bypasses," blood around clogged arteries to improve blood flow and oxygen to the heart.

A Cleveland Clinic Preventive Cardiology & Rehabilitation study, in collaboration with the Bakken Heart-Brain Institute, examined four psychosocial characteristics of patients prior to CABG surgery. Patients filled out a questionnaire assessing the existence of life stress, time pressure, anger, or sadness prior to CABG surgery. The study examined the existence of the four factors and the predictive value of these variables on post-operative mortality.

The study, led by Dr. Leo Pozuelo, showed that patients who reported the presence of life stress and time urgency prior to CABG surgery tended to have a protective effect in follow-up mortality, or they had better outcomes. The findings may validate the characteristics of the "Type A" personality as not being detrimental to coronary artery disease patients. The presence of anger did not have an effect on post-operative mortality. The presence of sadness appeared to have an early detrimental effect on mortality.

“It has been known for many years that psychosocial characteristics have an effect on health,” said Leo Pozuelo, M.D., primary investigator and Director of the Cardiovascular Behavioral Health Clinic, Cleveland Clinic. “Our findings suggest that pre-operative screening and possible intervention for psychosocial characteristics, such as sadness, may improve patient outcomes.”

About the Study
Using the Precis Database, 4166 patients admitted to the Cleveland Clinic for CABG, from March 2000 through Sept. 2006 were studied. The mean age was 66.5 and 76 % were men. All patients completed a questionnaire about the presence of the four psychosocial variables prior to admission. Patient mortality, measured up to 6 years after the CABG, was assessed via the Social Security Death Index. Survival was compared amongst subjects with the history or no history of the psychosocial variables.

The study was presented at the American Psychosomatic Society Annual Meeting in Budapest, Hungary. Dr Pozuelo's research is partially supported by the Bakken Heart-Brain Institute.
About The Earl and Doris Bakken Heart-Brain Institute
The Earl and Doris Bakken Heart-Brain Institute at Cleveland Clinic is dedicated to promoting research and education related to heart-brain interactions, to discovering new treatments and cures for cardiovascular and nervous system disorders that build upon these interactions, and to offering a range of healing solutions that treat the patient as a whole.

About Cleveland Clinic
Cleveland Clinic, located in Cleveland, Ohio, is a not-for-profit multispecialty academic medical center that integrates clinical and hospital care with research and education. Cleveland Clinic was founded in 1921 by four renowned physicians with a vision of providing outstanding patient care based upon the principles of cooperation, compassion and innovation. U.S. News & World Report consistently names Cleveland Clinic as one of the nation’s best hospitals in its annual “America’s Best Hospitals” survey. Approximately 1,500 full-time salaried physicians at Cleveland Clinic and Cleveland Clinic Florida represent more than 100 medical specialties and subspecialties. In 2005, there were 2.9 million outpatient visits to Cleveland Clinic. Patients came for treatment from every state and from more than 80 countries. There were nearly 54,000 hospital admissions to Cleveland Clinic in 2005. Cleveland Clinic’s Web site address is www.clevelandclinic.org.

# # #

1 The Society of Thoracic Surgeons
Daily social contacts and diurnal cortisol levels: Results from a daily diary study and within-person manipulation

**Budapest, Hungary** - Do you sit at your desk and eat lunch alone with your computer, or dine with colleagues? Do you commute alone in your car, carpool, or take public transit with the masses? Do you go to bed when your spouse does, or stay up late into the night? Recent research suggests that your answers to these types of questions may influence your health.

We have long known that social relationships improve health and well-being, but what has not been as clear is how. Researchers Cinnamon Stetler at Furman University and Gregory E. Miller at the University of British Columbia have been working to answer that question. The answer they have come up with is based on data from a study in which 57 participants spent 4 days collecting information about their daily routines and social contacts using handheld computers. Their results suggest that the daily routine, and the social contacts involved in that routine, influence daily production of an important hormone, cortisol. Cortisol is produced by the body in a specific pattern, or diurnal rhythm, each day. Levels of cortisol typically peak in the morning, just after waking, and decline steadily throughout the day. High levels of cortisol have been linked to poorer health outcomes. Researchers found that the higher the percent of the routine daily activities that involve other people (for example, eating lunch alone at your desk compared to eating lunch with colleagues or friends), the faster the cortisol levels declined. This was true not only for cortisol levels on the same day, but for cortisol levels the next day as well. Thus, having companionship during routine daily activities can promote more normal cortisol levels and perhaps promote better long-term health. These findings may help to explain how social relationships exert their effects on health.

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**Release from American Psychosomatic Meeting, Budapest, Hungary**

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Depression May Be an Important Cardiac Risk Factor; Study Finds Changes in Depressive Symptoms Predicted Mortality

Budapest, Hungary - Research has demonstrated a strong connection between depression and heart disease. Depression has been linked to increased risks of developing coronary heart disease and increased mortality rates.

A Cleveland Clinic led study examined the changes of depressive symptoms and their effects on mortality among the elderly. The research team conducted a literature review and utilized a novel statistical methodology to simultaneously model longitudinal changes in depression and long-term survival. The findings suggest that early screening and intervention of depression for the elderly might prevent excessive mortality.

“Our study captured a picture of the natural progression of depression,” said Jianping Zhang, M.D., Ph.D., lead author, at Cleveland Clinic Department of Psychiatry and Psychology. “Our hope is that better screening will lead to earlier intervention among elderly populations and will ensure that depressed patients get help.”

The study is a collaboration between Cleveland Clinic and researchers at Case Western Reserve University and Cleveland State University.

The study was presented at the American Psychosomatic Society Annual Meeting in Budapest, Hungary.

About the Study
In order to assess the association between changes in depression and long-term mortality, we analyzed a dataset from a large longitudinal study of elderly people living in the community. At study entry, 865 people (mean age = 80.7, 65.8% women) participated initial comprehensive assessment, including the Center of Epidemiological Studies – Depression Scale (CESD, 10-item version). They were then assessed annually up to 11 years. Mortality was ascertained by the Social Security Death Index up to 15 years, as of December 15, 2005. A joint modeling statistical analysis was conducted to simultaneously analyze the change of depressive symptoms (as measured by CESD scores) over time in each participant and its association with risk of mortality. Five classes of covariates were controlled to rule out confounding factors: demographic (age, sex, education, marital status, income, living situation), health behavior (smoking, alcohol consumption, exercise), chronic disease (body mass index, heart disease, stroke, cancer diabetes, hypertension,
cancer, hyperlipidemia), health status (self-rated health, ADL, IADL), and cognitive impairment.

Total mortality rate at the end of 2005 was 69.7% (603 participants). In a Cox regression model, baseline CESD scores predicted mortality adjusting for age and sex, HR = 1.03, p < .001. This predictive power, however, disappeared after adjusting other covariates. The results of the joint modeling of repeated measures and survival showed that the linear change rates of CESD scores over time was predictive of mortality even after adjusting all five classes of covariates, HR = 1.60, p < .001. To interpret the results, the change rates of CESD were divided into three tertile groups: Down, Stable, and Up in depression. Compared to the Down group, the Up in depression group had a 46.7% increase in mortality risk, p = .003. The Stable group was not different from the Down group. In the Up group, CESD scores were increased by 2.4 points in average, compared to 1.4 points decrease in average in the Down group.

About Cleveland Clinic
Cleveland Clinic, located in Cleveland, Ohio, is a not-for-profit multispecialty academic medical center that integrates clinical and hospital care with research and education. Cleveland Clinic was founded in 1921 by four renowned physicians with a vision of providing outstanding patient care based upon the principles of cooperation, compassion and innovation. U.S. News & World Report consistently names Cleveland Clinic as one of the nation’s best hospitals in its annual “America’s Best Hospitals” survey. Approximately 1,500 full-time salaried physicians at Cleveland Clinic and Cleveland Clinic Florida represent more than 100 medical specialities and subspecialties. In 2005, there were 2.9 million outpatient visits to Cleveland Clinic. Patients came for treatment from every state and from more than 80 countries. There were nearly 54,000 hospital admissions to Cleveland Clinic in 2005. Cleveland Clinic’s Web site address is www.clevelandclinic.org.

# # #
**Does it take a hero to be teacher, or is it just a case of collective complaining?**

**Budapest, Hungary.** Recent research suggests that the body pays for chronic stress at work.

Work overload and the continuing emotional demands linked to the teaching profession can progressively lead to a decrease in performance as well as an increase in health risks and long-term absence from work.

The present study presented at the American Psychosomatic Society Annual Meeting, held in March 7-11 in Budapest, analyzed whether job-related chronic stress in terms of burnout and vital exhaustion is associated with health impairments in a sample of 180 school teachers.

First, we investigated the wear and tear on the body and brain due to chronic work-related stress resulting from chronic overactivity or inactivity of different physiological systems that are normally involved in adaptation to environmental challenge. According to the allostatic load model (McEwen, 1998 N Engl J Med), we measured several psychobiological parameters, known to be mediators in the stress-disease link. This included the assessment of diastolic and systolic blood pressure, different stress hormones, blood lipids, distribution of body fat, and biomarkers for immune functioning (e.g., CRP, TNF-alpha) and blood coagulation (e.g., fibrinogen, D-dimer). It could be demonstrated that exhausted women as well as women with adverse job characteristics (namely high effort and low reward) showed a significantly higher cumulative biological burden in terms of these parameters (= higher allostatic load).

Second, we assessed in more detail the integrity of the hypothalamic-pituitary-adrenal (HPA) axis which is one of the major hormonal stress systems of the body. It ultimately controls levels of the stress hormone cortisol. Daytime cortisol profiles can be easily assessed non-invasively by saliva samples. In this study, subjects were requested to collect 7 saliva samples over the course of a day on 2 workdays and one leisure day in order to analyze whether deviations in the basal regulation of cortisol are more common in teachers with high levels of work-stress. However no such association could be found in normal cortisol day activity. Only with a more sensitive method, the Dexamethasone Suppression Test (DST), associations between burnout and cortisol regulation could be detected. The DST is a tool routinely used to assess the negative feedback sensitivity of this hormonal axis. High burnout and vital exhaustion were significantly related to stronger suppression of cortisol after dexamethasone intake which points to a higher HPA axis feedback sensitivity in the chronically stressed subjects.

Taken together the results of this study suggest that even in employed teachers with a good health status chronic work stress appears to be associated with subtle psychoneuroendocrine dysregulations which, in the long run, might predispose for adverse health conditions.

###
Associations Between Depersonalization, Mindfulness And Childhood Adversities In Pain-Patients And Non-Patients

Budapest, Hungary – “I feel strange, as if I were not real or as if I were cut off from the world; I feel 'automatic' and mechanical as if I were a 'robot'; I have to touch myself to make sure that I have a body or a real existence.” These are descriptions of a state of consciousness termed depersonalization. Depersonalization occurs on a continuum from transient episodes that are frequently reported in healthy individuals under certain situations, to a chronic mental disorder that causes considerable distress with a prevalence of approx. 2% in the general population. Despite this high prevalence depersonalization is underdiagnosed and poorly treated. Depersonalization is conceptualized as a kind of mental escape from the full experience of reality. Overwhelming affects and emotional maltreatment during childhood have been postulated to constitute the etiological basis for the formation of depersonalization.

The state of detachment in depersonalization contrasts with certain aspects of mindfulness. Mindfulness is a state of consciousness characterized by being in touch with the present reality. High mindfulness is qualified by the ability of becoming non-judgmentally aware of one’s thoughts, feelings and sensations. Mindfulness is stemming from a buddhist meditative background. A mindful state of consciousness can be cultivated through certain meditative exercises. Mindfulness has recently received considerable attention as a variable potentially relevant for mental health. Recent studies indicate that interventions encompassing mindfulness exercises are effective in the treatment of a broad variety of somatic and mental disorders.

Against this background we investigated associations between depersonalization, mindfulness and childhood adversities in a mixed sample of non-patients and chronic non-malignant pain-patients. We found a high prevalence for severe depersonalization of about 21% in the pain patients and of 8% in the non-patients. Secondly we found a strong inverse correlation between depersonalization severity and mindfulness in both samples. In the non-patient sample emotional maltreatment during childhood was associated with depersonalization severity and a lower ability for mindfulness.

These pilot data suggest an antithetical relationship between depersonalization and certain aspects of mindfulness and thus encourage future studies on mindfulness-based interventions for depersonalization. The prevalence of depersonalization is likely underestimated, both among the general population and clinical groups. Childhood maltreatment and neglect are among its likely precursors.

# # #
Recent research suggests studying about death and dying to make communication more open

Budapest, Hungary - Are you medical student or health care worker and are you afraid of death and dying? The goal of the end of life courses is to reduce inner anxiety and to improve attitude to dying patients with making communication more open. The aim of our research was exploring critical issues related to fear of death and evaluate the effects of courses for health care workers and medical students.

127 health care workers and 41 medical students completed the Multi-dimensional Fear of Death Scale and the Shortened Version of Beck Depression Scale on the first and last day of the 30-40 hours' courses.

The most significant factors of fear of death are: Fear for Significant Others, Fear of the Dying Process and Fear of Premature Death. Overall fear of death scores are reduced as an effect of the courses, the alteration of the components of fear of death depends on the participants’ gender, age and profession as well. Fear of death of women and young participants is higher than men's and older participants'. Among 22-30 years old medical students the decrease of factors of Fear for Significant Others and Fear of Conscious Death is important. Among health care workers the factors of Fear of the Dead and Fear of Conscious Death decrease significantly by the end of course. In health care workers older than 40 years the factors of Fear for Significant Others and Fear of Premature Death decrease significantly as well. Improvement was observed in both groups in attitudes that can be related to the increase of knowledge on the quality care of dying patients like fear from the process of dying and fear from conscious experience of death.

Besides education containing training as well it is important to strengthen the support function of workplaces in caring for the mental health of the health care staff. Furthermore it is important that medical students participate in courses that aim to achieve open communication related to end-of-life issues.

# # #
New study finds biological connections between depression and heart disease

**Budapest, Hungary** - Depression increases the risk of death after a heart attack, but scientists do not know why.

Researchers have identified several ways that depression might increase the risk of death in patients with heart disease. Some of the most likely ones include changes in the way the nervous system controls the heart, inflammation in the coronary arteries that supply blood to the heart, and “stickiness” of the blood that can cause clots to form in the arteries.

Most researchers have been studying these linkages one at a time and have overlooked the possibility that they might be interconnected. A new study by Drs. Robert M. Carney, Kenneth E. Freedland, and Judith A. Skala at Washington University School of Medicine in St. Louis, is one of the first to investigate these interconnections. It was presented at the American Psychosomatic Society’s Annual Meeting, held March 7-10 in Budapest, Hungary.

The research team used 24-hour heart monitors to measure changes in how the nervous system controls the individual’s heart rate. They also took blood samples to measure inflammation and blood clotting factors. The results of the study showed strong relationships between how much the patient’s heart rate fluctuated over 24 hours, and the levels of several of the blood markers of inflammation and blood clotting.

Dr. Carney noted that, “These findings may provide some important clues for researchers who are searching for ways to reduce the impact of depression on the risk of death in patients with heart disease.”

###
Disability in recognizing own emotion is related to lack of empathy to other’s pain

Budapest, Hungary - Imagine you are unable to identify how you are feeling. To cope with various stresses and calm yourself, it is very important to identify your feeling (e.g. ‘I’m angry’) and know why you are feeling so (e.g., because I’m insulted). But some people can’t identify their own minds. ‘Alexithymia’ is a coined term (a:non, lexis:word, thymos:emotion) proposed in patients with psychosomatic disorders by P.E.Sifneos in 1970s. This concept includes the tendency to be poor at identifying, realizing and expressing one’s own feeling and the less fertility of fancy and imagination.

Meanwhile, alexithymia is reportedly associated with autism, schizophrenia, personality disorders, and psychopath. These disorders have common characteristics i.e., such patients are impaired to understand or empathize with other’s minds. There may be a certain association between knowing “self’s“ mind and “other’s” mind. Now that we think about it, a person who can’t realize one’s own mind may lack empathy.

The present study has shown that individuals with alexithymia have lower empathy to other’s pain, especially in its cognitive aspects, using functional neuroimaging technique. These are the conclusions drawn from a study by Yoshiya Moriguchi, M.D., and his colleagues, at the National Center of Neurology and Psychiatry, Japan, to be presented at the American Psychosomatic Society’s Annual Meeting, held March 7-10 in Budapest, Hungary. The researchers showed participants with and without alexithymia the pictures of human limbs under a painful situation, which had been validated in an earlier study. All situations depicted familiar events that can happen in everyday life. Various types of pain (mechanical, thermal and pressure) were represented (e.g., a finger / piggies accidentally pinched with doors, finger nearly cut with a kitchen knife, etc…). Then the participants scored how those pictures were painful. These series of task were conducted under scanning by functional magnetic resonance imaging (fMRI). Interestingly brains of the participants had been activated by the painful pictures as if they had real pain in their body (even without any actual pain stimuli). Comparisons between two groups (with / without alexithymia) showed alexithymia group scored lower on pain scoring, and some important parts of pain network in their brains were more inactivated (dorsolateral prefrontal cortex, anterior cingulate cortex, brainstem, and cerebellum).

Taken together, the results suggest that the impaired cognitive, particularly executive / regulatory aspects of empathy could be a part of the core deficit in alexithymia, which is associated with impaired emotional regulation and also highlights the importance of self-awareness in empathy. This raises the possibility that alexithymia is not a ‘lack of emotion’ but ‘deficit to recognize one’s own emotions’.

# # #
Sense of humor makes a difference: Evidence for reduced mortality with sense of humor in one of the largest population health studies of the world: The HUNT Study

Budapest, Hungary - It is an old and widely approved idea that sense of humor prolongs life. Dr. Svebak and his associates at the Norwegian University of Science and Technology published the first evidence in support of this idea in December 2006. They reported reduced mortality with sense of humor over a two-year period among patients with end-stage renal failure. Never before has the importance of sense of humor for survival been tested in an unselected adult population. Findings from around 53,000 adults above 20 years in the County of Nord-Trøndelag in Norway scored items on sense of humor as part of the population health study (HUNT-2: 1995-97).

Question: Did sense of humor have any impact on mortality risk over the following seven years?

Sense of humor was estimated by responses to a cognitive (N= 53,546), social (N= 52,198) and affective (N= 53,132) item, respectively, taken from the Sense of Humor Questionnaire (SHQ: Svebak, 1997). Scores on these items were related to mortality statistics in Norway up to 2003.

One approach to analyses looked at the direct association between sense of humor and survival status, without correcting for other factors affecting risk of dying, including age, gender, education, smoking, exercise habits, body mass index, blood pressure, cardiovascular diseases, diabetes mellitus and cancer. Results stated reduced mortality risk with increasing scores on sense of humor for all three items.

After correcting for age, gender, education and lifestyle variables, high scores on the cognitive item were still associated with reduced mortality, whereas scores on the social and affective items were unrelated to survival status.

A sub-population (N=2,015) was diagnosed with cancer at screening. Again, the cognitive item predicted survival after correcting for other mortality risks over the seven-year period: The higher scores reduced mortality risk with around 65 %, whereas the social and affective facets of sense of humor were unrelated to survival.

Conclusion: A humorous cognitive lifestyle is good for your health, whereas laughter may not prolong your life.

###
Depressive mood activates inflammation, an unhealthy feature of immune function

**Budapest, Hungary** – Being in a depressed mood over a period of two weeks can activate inflammation in the body, an unwanted feature of the immune system.

The task of the immune system is to protect us against bacteria and viruses and thereby helping us stay healthy. However, it has been called a “double-edged sword” because of its potential to attack our own organism. This type of “friendly fire” is the reason for allergies and autoimmune diseases, and it is also involved in harming our arteries leading to atherosclerosis and heart disease. Heart disease is more common in people suffering from depression, and the immune system is sometimes over active in depression. We were therefore interested in finding out whether immune system over activity is a consequence of depressive mood.

We asked a group of healthy young women to rate their mood on the internet for 20 weeks before a test of immune activity. Immune activity was assessed by measuring a signaling molecule called interleukin-6 (IL-6) in their blood. Findings presented at the American Psychosomatic Society Annual meeting in Budapest, Hungary show that those women who had depressed mood in the last two weeks before a blood draw had higher levels of immune activity. Immune activity was not related to mood over the remaining 20 weeks.

This means that depressed mood has a rather short-term effect of increasing unwanted immune system activity. It also suggests that if people are depressed over longer periods of time, this unwanted activation of the immune system might damage their arteries and contribute to heart disease.

###
Swedish data suggest that the adverse effect of job strain on ischemic disease may be masked if the sample contains a large proportion of older employees

Budapest, Hungary - Controversy remains regarding the status of psychosocial factors at work as a causal agent for ischemic diseases, such as myocardial infarction and stroke. According to the job strain model, the leading conceptualisation in this field, a combination of high work demands and low job control at work (i.e., job strain) increases risk of ischemic diseases. Although a large number of studies support this model, notable exceptions with negative findings also exist. Little is known about the reasons for these inconsistencies.

As presented at the American Psychosomatic Society Annual Meeting, a group of researchers from the UK, Sweden and Finland found that job strain was associated with a 1.7-fold increased risk of incident ischemic disease among men aged 19-55 during a 10-year follow-up. This excess risk remained unchanged after taking into account a large range of biological risk factors. However, including employees older than 55 in the cohort reduced the excess risk by 70% to non-significant.

These findings demonstrate that the inclusion of older employees in the cohort could result in a substantial reduction of the effect of job strain on ischemic disease. The researchers suggest two reasons why the inclusion of older employees may confound evidence:

First, this may be because of retirement effect leading to job strain misclassification due to changes in exposure over time. The follow-up periods in studies of job strain and ischemic disease are long and older employees typically retire during the follow-up period. This leads to a removal of job strain exposure, a source of underestimation of the effect of job strain on ischemic disease risk.

Second, unhealthy employees tend to leave the work force early and therefore healthier individuals are selected to populations of older employees. It is possible that they are more resistant against the adverse effects of job strain.

The reasons for mixed results were studied using data from a well-known prospective study on work and cardiovascular risk factors, the WOLF Stockholm study. This study collects data on a cohort of 3239 male employees aged 19 to 65 and free of ischemic disease at study entry. Their records of hospital admissions and deaths due to ischemic disease for a 10-year follow-up period after study entry were obtained from national registers.

Identification of potential reasons for inconsistencies in evidence of major importance, as it helps to clarify the true effect of job strain on ischemic disease. Based on their analysis, the researchers suggest that age structure should be better taken into account in future studies on job strain.


# # #
New Study Explains Why Aerobic Exercise Is Good for the Heart

**Budapest, Hungary**  – Aerobic exercise is widely recognized to reduce the risk of coronary heart disease, but until now, researchers have not fully understood the biological mechanisms behind the effect of exercise on cardiovascular health. Findings of a new study show how exercise decreases inflammation, which reduces the risk of atherosclerosis – fatty build-ups in the arteries – that cause most cases of heart disease.

In a study led by Richard P. Sloan, Ph.D., professor of behavioral medicine at Columbia University Medical Center, whole blood samples were taken from 46 healthy young adults (20-45 years old) both before and after participating in moderate or high intensity aerobic exercise, over a 12-week period.

The blood samples were stimulated with the infectious agent lipopolysaccharide (LPS) – gram negative bacteria – and then analyzed for levels of tumor necrosis factor (TNF) – an initial step in the inflammatory cascade. Substantially lower levels of TNF were found after aerobic training, in both the moderate and high intensity groups.

“These findings suggest strongly that exercise reduces the systemic inflammation that can lead to heart disease,” said Dr. Sloan. “This study is especially significant because the value of exercise has never before been shown in TNF, and never in healthy adults who were not at high-risk for heart disease.”

Findings will be presented at the American Psychosomatic Society’s Annual Meeting, March 7-10 in Budapest, Hungary.

“With the learnings gained from these findings, we plan to replicate this work with a larger group of volunteers,” added Dr. Sloan.

In addition to Dr. Sloan, the Columbia researchers involved in this study included Peter A. Shapiro, M.D., Ronald E. DeMeersman, Ph.D., Paula S. McKinley, Ph.D. and Pamela D. Flood, M.D. Kevin Tracey, M.D. of North Shore University Hospital, was also a member of the research team.

- # # # -

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Heart rate variability and mood state in endurance athletes with overtraining syndrome

Budapest, Hungary - Overtraining Syndrome (OTS) is a symptom complex affecting athletes of all levels. It is marked by decreased performance, often accompanied by one or more additional physiological and/or psychological symptoms. These may include chronic fatigue, disturbed mood states, susceptibility to infections, sleep disturbances, persistent muscle soreness, and changes in resting heart rate.

There are currently no clear guidelines for diagnosis or prevention of this debilitating condition. Several hypotheses attempt to explain various aspects of OTS, focusing on one or two specific symptoms, but all of them fail to give an encompassing view on the problem. The focus of this project was to facilitate a holistic, multidisciplinary approach to evaluate the many different and interrelated aspects of OTS in a group of athletes, presenting OTS symptoms.

We compiled a battery of tests to investigate nearly all known OTS symptoms. These included: variation in heart rate, diet, mood state, performance tests and blood tests (concentrations of interleukin 6, cortisol and testosterone). This project is ongoing and we are attempting to find the best predictive model to determine OTS, by means of statistical (discriminant) analysis. The results of the first three tests, i.e. heart rate variability, diet and mood state, are presented here at the American Psychosomatic Society Annual Meeting. The results showed:

- Increased resting heart rate and increased heart rate during a stressor in the OTS group. Changes were also found in the autonomic control of the heart during a stressor, when compared with a normal athlete group
- The OTS group also rated higher in depression, anger, fatigue and confusion, and lower in vigour
- The nutritional intake of the OTS group was insufficient to meet their energy demands

These significant differences found between OTS and Non-OTS athletes stress the importance of a multidisciplinary approach to research on OTS in athletes.

###
Experiencing emotionally meaningful stressors can directly trigger inflammation in breast cancer and medication intake counteracts these responses

Budapest, Hungary - One of the factors that has long been suspected to adversely affect breast cancer survival is psychosocial stress. However, findings so far have been equivocal. As presented at the American Psychosomatic Society Annual Meeting, this study followed an alternative path: We gathered extensive time series on a breast cancer patient to statistically analyze the cause-effect relationship between subjectively meaningful everyday stressors and neopterin levels. Neopterin is an inflammatory marker unfavourably related to breast cancer prognosis.

The 60-year old breast cancer patient (primary diagnosis 5 years before study start, disease free at study start) followed a fairly elaborated study protocol. She collected her entire urine for a period of 32 days in 12-hour intervals to measure neopterin. In addition, she thoroughly documented the occurrence of daily stressors and her emotional reaction to them. In weekly interviews, we discussed the personal meaning of these stressors with the patient.

Statistical time series analysis showed that incidents particularly threatening to the patient such as conflict with her mother at Christmas Eve or mammography screening for cancer recurrence had a bad influence on inflammatory processes: Neopterin increased 3.5 days after stressors had occurred. Interestingly, the medication the patient took every 12 hours (i.e., anastrozole, zinc orotate, selenite, Cinnabaris, sodium sulfur) counteracted these adverse reactions in that neopterin decreased 2.5 days after medication intake.

In conclusion, using an alternative approach to psychosomatic research we showed that experiencing everyday stressors in breast cancer can directly trigger inflammatory processes associated with poor cancer prognosis. The good news: Regular intake of medication may have contributed to the normalization of the patient’s immune levels. Further studies have to follow to back up these promising findings.

# # #
Recent Research Suggests that Depression and Diabetes Frequently Co-Occur and the Combination May be Deadly

**Budapest, Hungary** - If you have depression and diabetes, it raises the risk of complications and mortality, but your depression can be effectively treated.

In recent years, studies have shown that one in five patients with diabetes struggles with depression. Depression has been linked in diabetic patients to higher medical symptom burden; increased impairment in social and vocational roles; poor self-care, such as less adherence to dietary, exercise, and medication regimens; increased blood glucose levels; and higher medical costs. Recent studies have also shown that depression in patients with diabetes is associated with increased risk of mortality. This increase in mortality is likely to be both due to impaired ability to follow self-care regimens, as well as the adverse biologic effects of depression on the hypothalamic-pituitary-axis and the autonomic nervous and immunologic systems.

There is also good news for patients with depression and diabetes. Two recent studies have shown that depression can be effectively treated in patients with diabetes, and that effective treatment of depression improves quality of life and actually lowers total medical costs over a 2-year period.

These are the conclusions drawn from a series of studies investigating the prevalence and adverse impact of depression in patients with diabetes and the development of innovative depression treatment models in these patients. This research, from a Seattle-based team of researchers at the University of Washington and Group Health Cooperative, is to be presented at the American Psychosomatic Society's Annual Meeting from March 8-11 in Budapest, Hungary.

###
The genetic adrenoceptor variance and its role in developing hypertension

Budapest, Hungary - Stress plays an important role in the development of a range of psychosomatic disorders. Several studies have shown the negative effect of so called stress hormones. There is an increased concentration of Adrenalin or Noradrenalin in blood. But psychosomatic disorders aren’t based on one single cause. In fact there is a interplay of biological, psychic and social factors. Genetic factors are also discussed. As stress hormone Adrenalin causes amongst others an elevation of blood pressure and heart rate. Adrenalin arranges its effects through activation of so called adrenoceptors. These are docking sites for the hormone in different body tissues. Adrenoceptors are discerned in 3 families with 3 or 4 subtypes by their pharmacological and biomolecular qualities (α1, α2, β). β–adrenoceptors occur in the heart (β1) and also in the blood vessels (β2) in high density. The present study, as presented at the American Psychosomatic Society Annual Meeting, deals with the β2–subtype, its genetic variance and its effect on blood pressure and heart rate of healthy young males. These received a low or high salt diet for 14 days. At the beginning and the end of the diet blood pressure and heart rate was measured. We were able to demonstrate that subjects with a certain genetic variance had a lower heart rate in rest and a lower increase in systolic blood pressure under high salt diet than the subjects with other genetic determination. This underlines the impact of genetic factors in the interplay of external factors like stress or high salt exposure, the psychophysiological reaction of the body on stress and predetermined factors like the genetic factors.

# # #
The immune system of children responds to the mood of their parents

Budapest, Hungary - Previous research has shown interesting links between psychological factors such as stress and the immune system. The present study sought to extend these findings by testing whether psychological factors in parents can be linked to immune outcomes in their children.

Researchers at the University of British Columbia explored whether parental depression or stress would be related to changes in children’s immune system over time. A sample of children with a chronic inflammatory condition, asthma, was compared to healthy children. Parents completed questionnaires about depression and stress. A blood sample was taken in children and the researchers investigated two immune messengers at two time points six months apart, one called ECP and the other called IL-4. High levels of these messengers are observed in diseases such as asthma.

As presented at the American Psychosomatic Society Annual Meeting, the study showed that children with asthma who had a parent with high levels of stress or in a depressed mood showed increases in both IL-4 and ECP over a six month period. The study results further suggest that the association between parent depression and immune function may be explained partly by children’s mood, such that parents’ depressed mood influences how anxious/depressed the child feels, which in turn may affect immune function in children with asthma.

These findings indicate that the psychological states of parents can have effects on the biological systems of their children. If true, it suggests the importance of interventions to boost the mental health of parents as one approach toward maximizing the physical health of children with chronic illnesses such as asthma.

###
Anxiety Is Associated with an Increased Risk of Premature Death in Women at Midlife

Budapest, Hungary - Previous research on the effect of psychological factors on physical health in the general population has largely focused on the role of depression in men and in elderly populations. However, little is known about the health effects of anxiety in women at midlife.

To address this unresolved issue, Dr. Johan Denollet and his colleagues from Tilburg University in The Netherlands studied 5073 healthy Caucasian women who were born between 1941-1947; the mean age of these women at the start of the study was 50 years. The purpose of this study was to find out which women were at increased risk of premature death during a follow-up period of 10 years.

Smoking, living alone, and lower education were all related to an increased risk of premature death. Apart from demographic factors and unhealthy lifestyles, these researchers were especially interested in the role of anxiety as a predictor of death in middle-aged women. Importantly, symptoms of anxiety were associated with a 77% increase in mortality risk, above and beyond all other risk factors.

“Anxiety was related to an increased risk of cardiovascular and lung cancer death, but not breast cancer death” said Johan Denollet. Anxiety was also related to hypertension, diabetes, lower education, and living alone. This is one of the few studies that have looked at the relation between anxiety and health in women at midlife. “Our findings call for more research on the health consequences of anxiety in women” Dr. Denollet added. These are the conclusions drawn from a study to be presented at the American Psychosomatic Society’s Annual Meeting, held March 7-10 in Budapest, Hungary.

###
Predicting Anxiety, Exhaustion, and Depression After A Heart Attack:
1 Year Follow-Up

Budapest, Hungary - Most cardiologists and health psychologists will agree that cardiac rehabilitation is necessary after a heart attack or bypass surgery. Rehabilitation programs are known to promote physical fitness and to address unhealthy lifestyles (smoking, overeating, lack of exercise) and most programs will teach stress management techniques to cope with daily stress. Unfortunately, most heart patients will not benefit from these programs as they are not yet being offered routinely throughout Europe. An urgent reason for cardiac rehabilitation on a larger scale comes from research on negative emotions after a heart attack or bypass surgery. International studies suggest that becoming “depressed” is linked to a higher risk of a new heart attack in the near future. What exactly should be called “depressed”, however, is still a matter of debate.

An analysis of depression in a cardiac rehabilitation study from the University Hospital Maastricht, the Netherlands, presented by Paul RJ Falger, Ph.D., may contribute to this debate. In this study, presented at the American Psychosomatic Society Annual Meeting in Budapest today, three measures were included. These measured different features of depression, focusing on self-reports of fatigue and exhaustion, as well as other aspects of depression. In addition, anxiety measures and a clinical psychiatric interview were included.

Some 210 heart patients were followed for 1 year after a recent heart attack (68%) or bypass surgery. In retrospect, 44% reported exhaustion and 20% clinical depression before their cardiac events. All measures at discharge from the hospital predicted anxiety, fatigue, exhaustion, and depression 1 year later. Patients who remained depressed had a fourfold higher risk of a new heart attack or bypass surgery than non-depressed patients. The clinical depression measure was the only one that predicted this risk when other clinical factors (cardiac history, cardiac status, smoking) were taken into account.

Thus, if cardiac rehabilitation programs were also to focus on depression, new cardiac events might be prevented.

# # #
Recent research suggests that it is better to listen to your heart…

**Budapest, Hungary** - It has long been known that somebody’s own emotions are recognized and identified through the process of interpreting inner bodily signals (heart beating, breathing, muscle tension etc.) according to the information, thoughts and memories come from the given situation. People who have difficulties in identifying expressing and describing their own emotional states are called alexithymic. They often have no words and thoughts to describe their emotional experience and usually are not able to distinguish between feelings and the bodily sensations accompanying feelings. Recent researches suggest that the core of alexithymia may be the deficient cognitive processing of emotional bodily signals and the consequent loss of the marker function of bodily sensations in the formation of the conscious experience and meaning of emotional states. Alexthymic people miss the inner mental means to regulate emotional states so a large amount of alexithymics suffer from mood disturbances, unexplained somatic symptoms and uncontrollable impulsive behaviors as eating disorders or substance abuse. On the other hand impulsive behavior (acting without considering the following consequences) is associated with the reduced activity and inappropriate use of bodily signals which indicate the emotional meaning of a situation and so help regulating emotional state and behavior.

People who proved to be alexithymic have difficulties in evaluating and regulating their emotions; they are more impulsive, anxious and are less able to regulate themselves so feel more intense positive and negative emotions and report higher emotional tension although their objective measurement of heart beating during emotional state does not indicate increased stress. There are conclusions drawn from a study investigating how alexithymia influence the usage of emotional bodily signals in emotional self regulation to be presented at the American Psychosomatic Society Annual Meeting held March 7-10 in Budapest, Hungary. The study reported by Károssy K. MD include the examination of personality traits of alexithymia, impulsivity, anxiety and self-control between healthy university students and the objective and subjective reports of emotional reactivity measured by heart rate and self-evaluating descriptions of feelings during emotion provoking slides.

Taken together, the results of the study suggest that alexithymic people overestimate their emotional bodily signals because objective and subjective measures of emotional tension and emotional reactivity are decoupled in alexithymia. This effect may be related to reduced self-regulation and impulsivity.

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The predictability of social support to cardiovascular mortality: 21 year follow up of EPESE

Budapest, Hungary - Social support can reduce cardiovascular mortality?

It is well known psychological and social factors, such as anxiety, depression and social support, can predict mortality and incidence of cardiovascular disease. In 2003, a 21 year, longitudinal, community-based study was completed, which examined the effect of psychosocial conditions on death rate in general, and from heart attacks in particular.

This study will be presented at the American Psychosomatic Society’s Annual Meeting, held March 7-10 in Budapest, Hungary.

In 1982, 951 men and 1157 women registered for the EPESE (Established Populations for Epidemiologic Studies of the Elderly) program and provided data including their smoking habits, clinical history, body mass index, education level, income, disabilities, depressive symptoms, and social network. They had follow-up interviews annually until the end of 2003. During the study period, 876 men and 937 women died. Among them, 177 men and 235 women died from heart attacks. Analyses of the relationship between death and psychosocial factors show that elderly people with more social ties had a lower death rate and elderly women with more social ties had also a lower death rate from heart attacks. This study supports the theory that social support can reduce the death rate in elderly men and women and the death rate from heart attacks in elderly women. Social support may be involved in preventing cardiovascular disease directly and also through its effect on total health.

# # #
Research suggests that changing your facial expressions can change how you feel emotionally, even when you are unaware of doing so.

Budapest, Hungary - After a stressful day, have you ever become of aware of just how tightly you were clenching your jaw, how furrowed your brow was, or how much you had been squinting your eyes? These and other facial expressions may be more directly connected to emotional experience than was previously known. Recent research suggests that limiting your facial expressions can both decrease how strongly you feel an emotion and decrease your heart rate.

As presented at the American Psychosomatic Society Annual Meeting, there is now evidence that if a person keeps him or herself from making facial expressions, the emotions that would typically go along with those facial expressions are likely to become weaker. Moreover, this weakening of emotional experience will occur even if a person is not aware of trying to hide their emotional expressions.

This research builds on what was previously known in three ways: 1) By considering both positive and negative emotions, it reveals whether restricting facial expression simply makes any emotional experience more or less pleasant, or whether there is a decrease in the strength of emotional experience. 2) Asking participants to restrict their own facial muscle activity is taxing and distracting. This research controls for the effects of distraction. 3) When participants are aware that they are changing their facial expressions in order to affect their emotions it is impossible to know whether societal norms and learned beliefs regarding how facial expression and emotional experience are expected to connect are driving any changes in emotional experience that are reported. In this research, participants restrict their facial expressions through an indirect means, by which they are kept unaware that the research pertains to either facial expression or emotional experience. It therefore speaks to how direct the connection is between facial expression and emotional experience.

# # #
**The combination of smoking history and exercise capacity predicts cardiovascular-related events and death**

**Budapest, Hungary** - Are you a current or former smoker? Are you unable to run or to play moderate or strenuous sports without difficulty? If you answered “yes” to both of these questions, your risk of experiencing a major cardiovascular-related event or even dying in the next few years may be elevated.

Although both smoking and low exercise capacity have long been linked to negative health consequences, the two risk factors are rarely examined in combination. A recent study examined their joint impact on the risk of experiencing clinical events, including heart failure, stroke, myocardial infarction, or all-cause mortality, among 792 women with suspected myocardial ischemia. Data were collected from a sample of women enrolled in the Women’s Ischemia Syndrome Evaluation (WISE) study between 1996 and 1999 and contacted annually for approximately six years to re-assess their health status. Women were categorized into one of four groups based upon their smoking history and self-reported exercise capacity. Compared to women with high exercise capacity who had never been smokers, women with low exercise capacity but a negative smoking history had a 3.4 times greater risk of experiencing at least one event over follow-up. Women with high exercise capacity but a positive history of smoking had a 5.2 times greater risk, and women with both risk factors had a 5.6 times greater risk. Each group’s relative risk was statistically significant, even after controlling for demographic variables, such as age; other cardiovascular risk factors, including pre-existing coronary artery disease severity; and details of smoking history, including pack-years women smoked and number of months since former smokers had quit.

These are the conclusions drawn from an investigation of the joint impact of smoking and low exercise capacity on major cardiovascular-related outcomes and death, to be presented at the American Psychosomatic Society’s Annual Meeting, held March 7-10 in Budapest, Hungary.

Furthermore, when compared to the high exercise capacity non-smokers, the average number of total events each woman in the other three groups experienced followed the same pattern of increasing risk.
Ethnic self-identification good indicator of health risk

Budapest, Hungary - Are Hispanics more likely to smoke or be overweight? Research paints an unclear picture, in part because Hispanics are typically viewed as one group rather than having diverse subpopulations.

“The term Hispanic is often used to encompass Cubans, Mexicans, Puerto Ricans and others,” said Steven Barger, a health psychology professor from Northern Arizona University. “This causes a lot of inconsistency in research, with little attention being paid to health variation within Hispanic subgroups.”

In his recent study, Barger categorized health risk for one such subgroup—U.S. Hispanics of Mexican descent—and the results suggest that the ways people self-identify their ethnicity may be a better indicator of health risk than broad labels currently used in research and literature.

“National surveys have revealed that, given a choice, Mexican-Americans describe themselves differently,” he says. “Some refer to themselves as ‘Mexican’ while others use the term ‘Mexican-American.’ But by grouping them into one ethnic category, important variations in health risk among them are being overlooked.”

For example, Barger’s study shows that self-identified Mexican-Americans are more likely to smoke and be obese than self-identified Mexicans, suggesting the former group has a health risk that more closely resembles other Americans.

This research was based upon more than 10,000 participants from three years of the National Health Interview Survey, a representative sample of adults living in the US.

“You can see how making generalizations about a population makes it difficult to capture a clear picture of health risk,” he says. “How people describe their ethnicity can provide a meaningful way to identify these differences.”

Dr. Barger presented his findings at the American Psychosomatic Society Annual Meeting in Budapest, Hungary March 8, 2007.

###
Recent research suggests that psychological states within 6 hours may aggravate your headache

**Budapest, Hungary** - Tension-type headache, which is the most common type of headache, has been thought to be aggravated by psychological factors. However, little has been known about the temporal relationship between psychological factors and headache because most previous studies relied on patient recall of daily experiences, which is influenced by recall bias, and patients might not remember the actual relationship. Recently, the method called computerized ecological momentary assessment (cEMA) is becoming more popular in research settings. In cEMA, patients recorded their symptoms such as pain intensity at the moment in their natural settings using portable computers as diaries. This method can avoid recall bias. The recent study applying cEMA to tension-type headache patients suggest that preceding psychological stress and bad mood states within 6 hours may aggravate tension-type headache intensity.

These are the conclusions drawn from a study to be presented at the American Psychosomatic Society’s Annual Meeting, held March 7-10 in Budapest, Hungary.

In the study by Hiroe Kikuchi, MD, 31 tension-type headache patients wore watch-type computers for one week and recorded their momentary headache intensity, psychological stress, anxiety and depression 5 times a day. The results suggest that preceding severe psychological stress, anxiety and depression within 6 hours might be related to severe tension-type headache. These findings suggest that those psychological factors might be aggravating factors of tension-type headache, though the causal relationship should be confirmed in future studies, which raises the possibility that psychological therapy is helpful to prevent aggravation of tension-type headache.

###
Placebo analgesia and heart rate variability

Budapest, Hungary - The present experiment investigated whether the placebo response could be recorded by objective, physiological methods. Placebo responses were induced by informing subjects that they received a potent painkiller, whereas all subjects received an inert substance. This procedure has been found to reduce pain, i.e., the procedure induces a placebo response. However, pain report may be subject to “response bias” and the subject may report lower pain due to the social context of the situation. Therefore, objective measurement of placebo responses are needed, and data on the sympathetic and parasympathetic control over heart rate was obtained in the present experiment. All subjects took part in two experimental sessions separated by at least one day. In one session heat pain of 46°C was administrated to the arm for 4 minutes at several points in time across a session of about one hour. After 10 minutes the subjects received two capsules containing inert white powder and were told it was a potent painkiller. This was hypothesized to induce a placebo response of reduced pain report. In the other session the same pain stimuli were administrated, but without capsules and information.

The results showed that parasympathetic activity increased after the subjects were told that they received a painkiller. This shows that placebo responses have physiological effects and cannot be attributed to response bias alone. Moreover, the reduction in sympathetic activity indicates that stress reduction is a mechanism in placebo responses. The results from this study were presented at the American Psychosomatic Society Annual Meeting.
Omega-3s Boost Grey Matter, Findings May Explain Why Omega-3s Seem To Improve Mood

Budapest, Hungary - Omega-3 fatty acids commonly found in fatty fish like salmon are associated with increased grey matter volume in areas of the brain commonly associated with mood and behavior says a University of Pittsburgh study.

Findings will be presented today by Sarah M. Conklin, Ph.D., postdoctoral scholar at the Cardiovascular Behavioral Medicine Program in the department of psychiatry at the University of Pittsburgh, at the American Psychosomatic Society’s (APS’s) Annual Meeting, held in Budapest, Hungary.

Animal research has shown that raising omega-3 intake leads to structural brain changes. In a separate study presented by Dr. Conklin at last year’s APS meeting, Pitt researchers reported that people who had lower blood levels of omega-3 fatty acids were more likely to have a negative outlook and be more impulsive. Conversely, those with higher blood levels of omega-3s were found to be more agreeable and less likely to report mild or moderate symptoms of depression. In the study being presented today, the researchers sought to investigate if grey matter volume was proportionally related to long-chain omega-3 intake in humans, especially in areas of the brain related to mood, helping them attempt to explain the mechanisms behind the improvement in mood often associated with long-chain omega-3 intake.

Researchers interviewed 55 healthy adult participants to determine their average intake of long-chain omega-3 fatty acids. Grey matter volume was evaluated using high-resolution structural MRI. The researchers discovered that participants who had high levels of long-chain omega-3 fatty acid intake had higher volumes of grey matter in areas of the brain associated with emotional arousal and regulation – the bilateral anterior cingulate cortex, the right amygdala and the right hippocampus.

While this finding suggests that that omega-3s may promote structural improvement in areas of the brain related to mood and emotion regulation – which also are areas where grey matter is reduced in people who have mood disorders such as major depressive disorder – investigators note that more research is needed to determine whether fish consumption actually causes changes in the brain.

# # #
Recent research suggests that an intolerance of uncertainty may actually be good for your health!

Budapest, Hungary - Feeling uncertain and worried about your health? Recent research suggests that feeling uncertain about whether or not you have a sexually transmitted infection (STI) leads to better health behaviours, such as getting tested for the STI. However, this does not hold true for everyone: only those who have a high intolerance of uncertainty are more likely to intend to get tested.

Some people view uncertain situations as unacceptable and highly aversive while others are not bothered by these same situations. Researchers have identified this individual difference as a personality trait called an “intolerance of uncertainty” and people fall along a continuum from high to low on this trait. Previous research shows that people can be led to believe that they have a high or low intolerance of uncertainty by manipulating their responses to a questionnaire and giving them false feedback on how well they tolerate uncertainty.

Conclusions drawn from a study being presented at the annual meeting of the American Psychosomatic Society, March 7-10 in Budapest, Hungary, build on this research. The research is being conducted by Natalie O. Rosen, a doctoral candidate at McGill University, Montreal, Canada and her graduate supervisor, Dr. Bärbel Knäuper.

In addition to manipulating university students’ intolerance of uncertainty, the most recent study also introduced students to 1 of 2 versions of a fictitious STI. The information that students read was designed to make them feel either more or less uncertain about whether or not they had the STI. The information in the high uncertainty version was created to have the same characteristics (for example, that 75% of women will be infected at some point in their lifetime) as a real STI, the human papillomavirus (HPV), which the scientific community now agrees causes cervical cancer. The results showed that students who were led to believe they had a high intolerance of uncertainty and who were made to feel highly uncertain about whether or not they had the STI, reported the highest intentions to get tested. However, these individuals also reported the highest levels of worry as a consequence of this uncertainty.

The results from this study suggest that a high intolerance of uncertainty may increase positive health behaviours such as screening intentions when individuals are faced with an uncertain health threat. Yet, a future challenge for health providers is to establish a balance in communicating uncertain information, such as a positive HPV test result, in a way that optimizes adaptive health behaviours and minimizes anxiety and worries.

###
Gene Variations Contribute to Aggression and Anger in Women

**Budapest, Hungary** - Ever wonder why some women seem to be more ill-tempered than others? University of Pittsburgh researchers have found that behaviors such as anger, hostility and aggression may be genetic, rooted in variations in a serotonin receptor gene. Findings will be presented today by Indrani Halder, Ph.D., of the Cardiovascular Behavioral Medicine Program, University of Pittsburgh at the American Psychosomatic Society’s Annual Meeting, held in Budapest, Hungary.

Previous studies have associated the hormone serotonin with anger and aggression in both humans and animals and have shown that increased serotonin activity is related to a decrease in angry and aggressive behaviors. In the study being presented today, researchers sought to determine if this relationship was genetically determined. The study is the first to look at the relationship between variations in the serotonin receptor 2C gene -- and anger and hostility.

Completed at the University of Pittsburgh’s Behavioral Physiology Laboratory, the study looked at 550 unrelated women of European decent. The women were not prescreened for behavioral type in order to find normal variations in genes and behavior. Researchers found that those who had one or more of two alterations in the promoter region of the serotonin receptor 2C gene were more likely to score lower on two common tests for anger, hostility and aggression.

These findings may aid in establishing a potential marker for certain conditions associated with aggression and anger.

“Aggression and hostility are predictors of conditions including hypertension, glucose metabolism and heart diseases,” said Dr. Halder. “The genetic marker we found for hostility also may be useful for predicting a person’s predisposition to such diseases.”

###
Gene Variant Can Predispose Men to Problems with Sleep, Depression

Budapest, Hungary - Men with a less active variant of a gene responsible for the breakdown of the neurotransmitters serotonin, dopamine and norepinephrine may be at higher risk for depression, sleep problems and higher cholesterol levels, researchers at Duke University Medical Center have found.

Variations of the monoamine oxidase-A (MAOA) gene, which has been associated with the incidence of depression, may also predispose some people toward other types of health problems, including poor sleep quality and higher levels of bad cholesterol in their blood, according to Beverly Brummett, Ph.D., Assistant Professor of Psychiatry and Redford Williams, M.D., Professor of Psychiatry at Duke and lead investigators of the study.

The findings were presented on March 7, 2007, at the annual meeting of the American Psychosomatic Society in Budapest, Hungary. The research was supported by the National Institute on Aging, with co-funding by the National Institute of Environmental Health Sciences, and the National Institute of Mental Health.

Brummett and Williams’ team utilized information obtained from a group that included 74 men who were primary caregivers for a relative or spouse with dementia plus an equal number of men who were not experiencing the stress of caring for a loved one with the memory disorder. After factoring out the effects of the stress of caregiving, the team discovered that men with a less active form of the MAOA gene variant were more likely to experience symptoms of depression, problems with their sleep quality and worse blood cholesterol levels.

“These findings suggest that men with the less active form of the MAOA gene variant may be at higher risk for both mental and physical health problems,” Brummett adds. “While we cannot yet be sure of the exact mechanism of action, we know that the pathways likely involve effects on the neurotransmitters that are broken down by MAOA. Our findings underscore the importance of future research in this area.”

###
Outwardly Expressed Anger May Predict Heart Disease in Older Adults

Budapest, Hungary - It’s a common belief that expressing anger is healthy and productive. However recent research indicates that high levels of outwardly expressed anger may lead to cardiovascular disease in older adults.

Joni T. Howard, a Ph.D student in Clinical Psychology at Washington State University, will present the findings from a study measuring the impact of anger expression on heart disease at the American Psychosomatic Society Annual Meeting, held March 7-10th in Budapest, Hungary. The study examined the relationship between anger expression and heart disease by monitoring the levels of coronary artery calcification - an indicator of heart disease - and anger expression in different age groups over a period of ten years. Anger expression can be separated into ‘anger-out’ and ‘anger-in’, where ‘anger-out’ refers to the tendency to externally express anger into the environment and ‘anger-in’ refers to the tendency to hold anger within. For example, someone high on the ‘anger-out’ scale is more likely to yell, slam doors and lose their temper, whereas someone high on the ‘anger-in’ scale is more likely to pout, sulk and boil inside.

Results indicated that higher levels of ‘anger-out’ significantly predicted higher levels of future coronary artery calcification independent of other traditional risk factors (e.g., cigarette smoking, cholesterol, body mass index). However, this significant relationship was only found in participants aged 50 years or over at study entry and not in the full younger sample. Interestingly, anger-in did not significantly predict calcification in either the combined or older sample.

“What’s especially intriguing with this data is that anger expression-out not only predicted future coronary artery calcification in the fifty and over population, but it was actually the single strongest predictor - even stronger than traditional risk factors such as smoking, obesity and cholesterol” Howard said. “It will be important to now attempt to replicate these results in a larger sample”.

This study provides a step towards delineating a more complete risk profile for heart disease in an aging population, and as such has implications for future cardiovascular risk management.

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New study helps explain how the unpredictability of feeling depressed today may be due to previous bouts of major depression

Budapest, Hungary - Does a past bout of depression leave emotional scars that can be detected even after the depression has abated? There is considerable controversy regarding whether a depressive episode has lasting negative effects long after the episode remits. This new study may shed light on how past recurrent depression affects the intensity and variability of everyday depressive symptoms among individuals with chronic pain.

Previous studies typically have compared people with one or more lifetime episodes of major depression with those who have never experienced a depressive episode. Yet there is reason to believe that recurrent depression, that is, two or more lifetime episodes, makes people uniquely vulnerable to a “depressive scar.” This new study, presented at the American Psychosomatic Society’s Annual Meeting, held March 7-10, in Budapest Hungary, examines how individuals with two or more previous bouts of major depression continue to experience mood disturbance on a daily basis long after their last depressive episode.

Research conducted at Arizona State University by Brendt Parrish B.S. Alex Zautra Ph.D., & Mary Davis Ph.D. in collaboration with Howard Tennen Ph.D. at the University of Connecticut School of Medicine examined the day-to-day variability, duration, and average levels of depressive symptoms among 206 men and women with Rheumatoid Arthritis, a condition associated with elevated levels of depressed mood. A unique feature of the study is that depressive symptoms were reported each day for 30 days. Although no participant was in the midst of a depressive episode during the study, those who had two or more lifetime episodes of major depression compared to those who were never depressed and those who had only one lifetime episode reported more daily depressive symptoms, more variability in their depressive symptoms, and fewer days of low depressive symptoms.

Taken together, the study findings implicate an emotional scar left by previous recurrent depressive episodes. Clinicians treating people with chronic pain may need to pay close attention to previous depressive episodes, even for their patients who are currently not experiencing a major depression.

# # #
Feelings of depression and low education: A potentially harmful combination for men

**Budapest, Hungary -** Men who obtain no more than a high school level of education who have a tendency to experience depressive symptoms may be at higher risk for death than their peers, according to a study conducted by researchers at Duke University Medical Center.

“We know that depressive symptoms are harmful for people regardless of their education level, but data show that the health impact may be even greater in men with lower levels of education,” said John Barefoot, Ph.D., professor of psychiatry at Duke and an investigator on the study.

The research team evaluated data from more than 4400 male Vietnam era veterans who received health examinations in 1985 and 1986. The veterans were followed through 2000.

They found that veterans who self-reported high rates of depressive symptoms and who also had lower levels of education were three times more likely to have died by 2000 than those who had few depressive symptoms or higher levels of education.

The findings were presented on March 8, 2007 at the annual meeting of the American Psychosomatic Society in Budapest, Hungary. The research was supported by the National Heart, Lung and Blood Institute.

“There are a number of possible reasons for this,” said Stephen Boyle, Ph.D., a research associate at Duke who led the study. “It may be because this particular group of men was more inclined to resort to health damaging behaviors or it could be that they lacked the skills necessary to effectively solve the life problems they were experiencing. Although the explanation for the finding is not clear, the health community should be aware of it and its implications.”

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Depression and Diabetes: A potentially harmful combination for heart patients

Budapest, Hungary - While it has been known that coronary artery disease patients with either depression or type 2 diabetes are at a higher risk of death, Duke University Medical Center psychologists have found that both of these risk factors together put heart patients at an even higher risk of death compared to having only one or the other.

In their analysis of 933 patients, the researchers found that heart patients with both type 2 diabetes and significant symptoms of depression had about 20% increased risk to die over a 3 year period, as compared to the group of patients that were depressed but did not have diabetes.

The researchers believe that this suggest a synergistic effect of diabetes and depression, though the actual physiological mechanism underlying such an effect is yet to be established.

“We found a trend showing that the probability of death increases as the level of depression increase in these type 2 diabetes patients with coronary artery disease,” said psychologist Anastasia Georgiades, Ph.D. She presented the results of the Duke analysis March 9, 2007 at the annual meeting of the American Psychosomatic Society in Budapest, Hungary. “Our data appears to show an important interaction between type 2 diabetes and depression on mortality in cardiac patients, meaning that physicians should closely monitor their heart patients who have both of these disorders.”

The research was supported by the National Heart, Lung, Blood Institute.

# # #
Meditation may help you deal with pain

Budapest, Hungary - The term Meditation may conjure up images of monks, sitting cross-legged in colourful robes pursuing spiritual enlightenment. However meditation is not restricted to those living in a monastery. Growing numbers of people are gravitating toward meditation for spiritual as well as other reasons. Indeed, scientific evidence suggests that a regular practice may positively impact health. Researchers at the Université de Montreal (U de M) now report that meditation may even increase your ability to deal with pain.

In a study to be presented at the Annual Meeting of the American Psychosomatic Society, in Budapest, Joshua Grant, a researcher at U de M and Pierre Rainville, professor in the Faculty of Dental Medicine at U de M compared how trained Zen meditators (with over 1000 hours of experience) and non-meditators experience painful heat stimulation applied to the skin. The researchers’ first important discovery was that meditators required much hotter temperatures to feel the same level of pain as the non-meditators.

In a second part of their study, they investigated perception and intensity of pain by asking the subjects to attend as they would while meditating. Trained meditators were then able to further reduce their pain. This analgesic effect was largest in the most experienced meditators, and did not occur in non-meditators.

In additional tests, researchers examined the effect of attending normally to the painful stimulation. In this condition, non-meditators experienced an increase in pain, consistent with previous studies of attention and pain. Remarkably, trained meditators reported that the perceived pain intensity did not change. Thus, it appears that over time meditation alters how a person attends to, and perceives, pain. Such ability may provide a useful adjunct or an alternative to current pain treatments. Follow-up experiments using brain imaging techniques are underway to examine how meditation modifies the response of the brain to painful experiences.

Funding for the study was provided by the Canadian Institutes for Health Research (CIHR), the Mind and Life Institute and the Fonds de la recherche en santé du Québec (FRSQ).
Prevalence and Psychosocial Correlates of Recurrent Pain in Children: A Canadian Population-Based Study

Budapest, Hungary - Research has revealed that children experience a variety of pains on a regular basis. A new study found that at least 1 in 6 children suffer from headaches, stomachaches and backaches on a weekly basis or more. The study, the first of its kind, assessed multiple pains in children from across an entire country (Canada), not simply children in a specific city or region. As pain prevalence rates increase at puberty, children who participated in the study were aged 12 and 13 years old, and were from a variety of social and economic backgrounds representative of families in Canada.

According to this study, as presented at the American Psychosomatic Society Annual Meeting 2007 in Budapest, headaches are the most commonly occurring pain in children, with one in four children experiencing them weekly or more, followed by stomachaches and backaches. Crystal D. Holly, a PhD student in Clinical Psychology at McGill University and her supervisor Christine T. Chambers from Dalhousie University looked at pain reports from over 2000 children, and found that not only do children experience these pains on a regular basis, but that children who experience any one type of pain have a greater chance of experiencing other types of pain as well. Their research findings also suggest that there are important sex differences in pediatric pain; specifically, girls experience more headaches and stomachaches than boys.

This research also found that a small but important group of children (approximately 5%) experience all three types of pain, and often. Several psychological and social factors were found to predict pain in these children: notably, anxiety, depression and parenting style. Previous research has shown that recurrent pain in children is associated with a high degree of health care service use and that childhood pain may continue into adulthood, and the results of this study help us better understand the complexities and scope of this problem.

# # #
Recent research suggests that having satisfying social relationships supports aspects of endocrine health in older women

Budapest, Hungary - Want to stay healthy as you age? Recent findings suggest that maintaining warm, satisfying social relationships supports endocrine system function in older women.

Human beings are “social animals”, and researchers have shown that loneliness or lack of social support is linked to a host of diseases and to increased mortality. Cortisol is a hormone that is important for metabolism and is released to a greater extent as part of the body’s response to stress. A healthy diurnal pattern of cortisol release appears to be associated with better social relationships.

This finding comes from research presented at the American Psychosomatic Society Annual Meeting, held March 7-10 in Budapest, Hungary.

Cortisol levels assessed from saliva generally spike after people experience certain types of psychological or physiological stress; however, apart from the body’s response to stress, cortisol secretion exhibits a typical pattern over the course of the day. In most healthy adults, cortisol peaks just after waking up in the morning, declines sharply throughout the day and evening, and finally begins to rise again during sleep. Some studies have shown that older adults often exhibit a flattening of this pattern. Flat or irregular cortisol rhythms have also been shown to accompany several physiological and psychological disorders.

Ninety women between 64 and 93 years old answered a questionnaire about the quality of their social relationships, and they collected 4 days of saliva samples from each morning, noon and evening. Women with higher questionnaire scores indicating warmer, more satisfying social relationships exhibited average cortisol rhythms with a steeper, healthier pattern. Results were presented by James Mackay from the University of California, Irvine, and participants were part of a larger longitudinal study conducted by Carol D. Ryff, Ph.D. and colleagues at the University of Wisconsin, Madison.

This research suggests that at least one aspect of healthy endocrine function is linked to social relationships in older women. An implication is that interventions aimed at social functioning may help keep the largest growing segment of the population (older adults) healthy. If we are warmly connected to friends and loved ones, we get by better, with a little of their help.

# # #
Experiencing emotionally meaningful stressors can directly trigger inflammatory response in breast cancer and medication intake counteracts these responses

Budapest, Hungary - One of the factors that has long been suspected to adversely affect breast cancer survival is psychosocial stress. However, findings so far have been equivocal. As presented at the American Psychosomatic Society Annual Meeting, this study followed an alternative path: We gathered extensive time series on a breast cancer patient to statistically analyze the cause-effect relationship between subjectively meaningful everyday stressors and neopterin levels. Neopterin is an inflammatory marker unfavourably related to breast cancer prognosis.

The 60-year old breast cancer patient (primary diagnosis 5 years before study start, disease free at study start) followed a fairly elaborated study protocol. She collected her entire urine for a period of 32 days in 12-hour intervals to measure neopterin. In addition, she thoroughly documented the occurrence of daily stressors and her emotional reaction to them. In weekly interviews, we discussed the personal meaning of these stressors with the patient.

Statistical time series analysis showed that incidents particularly threatening to the patient such as conflict with her mother at Christmas Eve or mammography screening for cancer recurrence had a bad influence on inflammatory processes: Neopterin increased 3.5 days after stressors had occurred. Interestingly, the medication the patient took every 12 hours (i.e., anastrozole, zinc orotate, selenite, Cinnabar, sodium sulfur) counteracted these adverse reactions in that neopterin decreased 2.5 days after medication intake.

In conclusion, using an alternative approach to psychosomatic research we showed that experiencing everyday stressors in breast cancer can directly trigger inflammatory processes associated with poor cancer prognosis. The good news: Regular intake of medication is able to improve the patient’s immune status. Further studies have to follow to back up these promising findings.
Meta-analysis of Pharmacotherapies in Adult Attention-Deficit/Hyperactivity Disorder (ADHD)

Budapest, Hungary - A group of researchers from the Semmelweis University Department of Psychiatry and Psychotherapy in Budapest Hungary announced today that they have completed a comprehensive evidence-based evaluation of pharmacological treatment options available for Adult Attention Deficit Hyperactivity Disorder (ADHD), the most common neurobehavioral disorder of childhood onset. The disease persists into adulthood in a high proportion of the sufferers, and is associated with great consequences, including chronic underachievement, impaired ability to function in work and academic settings, antisocial behavior, and drug and alcohol misuse.

Available treatment options for the disease include pharmacological treatments and behavioral therapy. Although there is consensus that the pharmacological treatments are efficacious, the supporting evidence is based on results from individual clinical investigations. Comprehensive, systematic reviews to empirically evaluate the weight of the overall evidence from many studies are largely missing.

The goal of the investigation presented at the 65th Annual Scientific Conference of American Psychosomatic Society, held on March 7-10 in Budapest, Hungary, was to undertake a meta-analytic synthesis of published scientific literature for providing an evidence-based empirical evaluation of drug treatments for adult ADHD. Publications were included in the analyses if they represented a scientifically rigorous evaluation of the treatments, namely they were placebo-controlled and double-blind, i.e., during the study neither the study subjects nor the researchers knew who belonged to the control group and to the experimental group. The analysis focused on the drugs’ efficacy.

The researchers say that the findings underscore the clear benefits of the treatment of ADHD with pharmacological agents, and also its limits. In particular, to illustrate the magnitude of the treatment effect in ADHD, based on the group’s findings in a typical 6-week treatment course of a study, approximately 77 patients are needed to be investigated in the active and the placebo group, respectively, in order to separate reliably (with a 90% chance) the effect of drug-treatment from the effect of placebo. The various types of drug treatments for ADHD show a clear difference in efficacy; thus, a careful benefit-risk evaluation is needed in future studies to support rational clinical decision making in terms of selecting the best available options for individual subjects.

# # #
PTSD is a lethal exposure variable in patients with implanted cardioverter defibrillators.

A posttraumatic stress disorder (PTSD) is a recognized psychiatric disorder, featuring a triad of symptoms: intrusion (painful memories of the traumatic event); avoidance (social withdrawal, phobic behaviour) and hyperarousal (exaggerated startle responses) following an adverse, most often life threatening event. The onset of a cardiovascular disease condition is often rapid and unexpected for the patient. Apparently out of the blue, the patient faces a life threatening emergency situation, often together with deleterious symptoms. Thus, the survival of an out-of-hospital cardiac arrest or the experience of an acute myocardial infarction bears traumatogenic properties which may result for some of these patients in symptoms which qualify for the diagnosis of PTSD.

Unfortunately, survival of a cardiac arrest or acute myocardial infarction does not mean that the threat is over for many patients: on the contrary, many of these patients remain in a constant risk of sudden cardiac death due to ventricular arrhythmias! For these patients, implantation of a cardioverter defibrillator (ICD) is the method of choice to prevent mortality. Although the clinical efficacy of ICDs has been convincingly demonstrated in clinical trials, there are concerns about negative effects of ICD on the patient’s sense of control, ability to engage in social activities and maintenance of positive coping resources. “Our suspicion was that for these patients the ICD may act as a constant reminder of the underlying disease condition,” said Karl Heinz Ladwig, Professor of Psychosomatic Medicine at the Technical University of Munich and principal investigator of the LICAD Study (Living with an Implantable Cardioverter Defibrillator-Study) and “…thus may make ICD patients more susceptible and more vulnerable for PTSD”.

The LICAD Study aimed to investigate a) whether ICD patients suffered in a clinical meaningful extend from PTSD symptoms and b) whether suffering from these symptoms had an adverse effect on survival in the patients. No study to date has examined PTSD symptoms as predictor of mortality in this patient population. The research group (combining psychosomatic researchers with electrophysiology specialists) followed among others 147 subjects with a traumatic disease onset and thus eligible for this investigation. After a mean follow-up period of about 5 years, 64 patients had died. The investigators revealed that suffering from PTSD symptoms amplified the risk of dying (total mortality) by about 3.4-fold – even after adjustment for left ventricular ejection fraction which is a major cardiac contributor to survival. When further adjusting for adverse affective conditions (anxiety, depressive mood) – the predictive power of PTSD symptoms even mounted the mortality risk to a hazard ratio of more then 5.5.

The study demonstrates that PTSD Symptoms in ICD patients are a lethal exposure variable independent from well recognized cardiac and psychiatric risk factors. There is an urgent need to further elucidate the gap between the damaging power of suffering from PTSD symptoms and the fatal outcome. (1a)
How the brain can damage the heart: Brain scans show how stress can affect our cardiac health

Budapest, Hungary - Emotional stress in our daily lives puts us at risk of developing heart problems. This risk increases with the duration of stress and especially affects people with less relaxed personalities, whose ‘blood boils’ when under pressure. Recently, medical researchers have used detailed brain scans that read when and where changes occur in the activity of different parts of the brain, and applied these to find out how emotional stress in the brain can produce potentially harmful effects on the heart. Together, the findings suggest that how the brain generates ‘fight or flight’ responses in the body via the sympathetic nerves may be relatively normal, but adverse affects on the heart may be caused by problems with the brain’s control of ‘rest and digest’ parasympathetic nerves, which normally put the break on sympathetic bodily arousal responses.

These are the conclusions drawn from a series of studies investigating how brain response to emotional stress influence heart function to be presented at the American Psychosomatic Society’s Annual Meeting, held in Budapest, 7-10 March 2007.

The protective parasympathetic effects on the heart can be measured from the degree to which the heart rate increases and decreases with breathing (heart rate variability). Using this index, 1) Richard Lane MD and colleagues at the University of Arizona induced different emotions, using film clips, in people while they were being scanned and examined how which parts of the brain controls mood–induced changes in heart rate. Activity in regions at the front of the brain, normally linked to relaxed ‘rational’ thinking, predicted heart rate variability, i.e. ‘good’ protective influences on the heart. 2) Mary-Frances O’Connor PhD at UCLA presents findings related to why and how bereavement and grief may increase the likelihood of sudden and serious heart problems. Scanning women who had experienced recent bereavement, she identified two midline brain region, posterior cingulate cortex and ventromedial prefrontal cortex, where activity was associated with ‘turned down off’ heart rate variability and hence the parasympathetic nerves that protect the heart. 3) Peter Gianaros PhD at the University of Pittsburgh reports the findings that differences between people in the activity of areas including same posterior cingulate regions may account for why some people have much larger blood pressure rises to stress than others. Large rises in blood pressure during stress increase the chance of heart problems and these studies may help identify why some people are more at risk of stress-induced heart disease. 4) Hugo Critchley DPhil and colleagues (Brighton and Sussex Medical School, UK), used electrical recordings from the surface of the skull, to examine how abnormalities with the heart itself may feedback to the brain and upset the balance of activity in areas controlling the heart. This mechanism may exacerbate the effects of stress on the heart, putting patients with heart disease at even greater risk.

Taken together, these studies show that medical science is now able to describe the interactions between emotion, brain and body that affect our health and wellbeing. Importantly by understanding these processes researchers can begin to identify people at risk at an early stage and develop new treatment strategies to avoid stress-related heart problems that pervade our society.

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Low social capital at work as a trigger of incident insomnia - multilevel results from the Finnish 10-town study

Budapest, Hungary - Hugo Westerlund and colleagues from the Karolinska Institute in Stockholm investigated whether sleeping problems are on the rise in the working population. Using data from the Swedish Work Environment Surveys the researchers found a significant increase in work-related sleeping problems from 1993 to 1999. The amount of sickness absence attributable to sleep problems increased from 1.6% to 10.5% among women, and from 3.7% to 7.9% among men.

Tuula Oksanen from the Finnish Institute of Occupational Health, Turku, Finland, reports from 13000 employees with no sleep problems at the initial investigation. Four years later, those employees experiencing a work-environment with low social capital were 1.3 times more likely to have developed sleep disturbances.

Töres Theorell presents data from a study examining risk factors for emotional exhaustion or burnout. High psychological demands and low decision authority at work both independently predicted the later occurrence of burnout. Other risk factors for burnout in men were conflicts with workmates. Support from superiors and from colleagues had a protective effect.

Finally, Silja Bellingrath from the University of Trier, Germany reports from a study involving 180 teachers. The study found an association between burnout or severe exhaustion and an index for biological wear and tear. This index, named Allostatic Load comprises 17 biological variables, including risk factors for cardiovascular disease. Exhaustion and burnout were unrelated to the secretion of stress hormone during a day. However, a medical suppression test suggested that the stress hormone system reacts more sensitive in teachers with burnout and exhaustion.

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No cuddles and job stress link to heart disease revealed

**Budapest, Hungary** - New clues into how daily servings of stress caused by job demands and other social pressures can increase our risk of heart disease have been revealed by scientists at University College London today.

Results from the British Heart Foundation-funded study, presented today at the American Psychosomatic Society conference in Budapest, found that people suffering from psychological distress or pressure from job demands had very high levels of a protein in their blood that is linked to a build up of fatty deposits in our blood vessels – a major cause of heart disease.

People receiving low levels of emotional support or with a low income also showed an increased likelihood of having the protein - called heat shock protein 60 - in their blood.

Professor Andrew Steptoe, BHF Professor of Psychology at University College London, said: “We know stress increases the risk of heart disease. But with so many of us facing daily pressures, we are working to untangle exactly how stress affects our heart health.”

The protein heat shock protein 60 occurs naturally in all of us and has a role in the cell’s own repair system. But it is released in higher levels when a cell is damaged, for example, when exposed to increased heat, after infection, oxygen deprivation or inflammation. However, it is not yet clear how social or psychological stress leads to an increase in the protein’s production.

The research tested 860 men and women in the UK who were part of the Whitehall cohort, a study to assess heart health of people in different social classes.

Cathy Ross, Heart Nurse, British Heart Foundation, says, “As well as looking after our bodies looking after our emotional well-being can also help to keep us healthy. Understanding the biological effects stress has on our bodies will bring us closer to finding the best stress-busters for our heart health and help us to work out how we can protect the most vulnerable people.”

The BHF has produced a dedicated stress booklet explaining the link between stress and heart disease. It can be downloaded or ordered from the BHF website at bhf.org.uk/stress. Alternatively, it can be ordered by calling 01604 640016. BHF publications are free of charge, but a donation is welcome.

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For more information please contact the BHF press office on 020 7487 7172 or 07764 290381 (out of hours).

Notes to editors
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- The British Heart Foundation (BHF) is leading the battle against heart and circulatory disease – the UK’s biggest killer. The Charity is a major funder and authority in cardiovascular research. It plays an important role in funding education, both of the public and of health professionals, and in providing life-saving cardiac equipment and support for rehabilitation and care.
- For more information on the BHF, visit bhf.org.uk.
Research from the University of Miami suggests that substantial processing of traumatic life events contributes to more favorable disease course in people living with HIV

Budapest, Hungary - We asked our sample of 174 patients living with HIV to write an essay describing their reactions to the most stressful or traumatic events in their lives. We analyzed the essays to see how processing of the stressor had occurred. We looked at processing in four different dimensions; cognitive appraisal (how they were thinking about the stressor), approach oriented problem solving (how they were thinking about the problems caused by the stressful event), self-esteem (how they were thinking about themselves), and experiential involvement (how much they could tolerate upsetting feelings and thoughts).

Our patients were then evaluated every 6 months for the next four years. Every 6 months they provided us with a blood sample which was used to determine two biological measures that are strongly associated with HIV disease, CD4 cell number (a measure of how much HIV has depleted the patients’ immune system) and HIV-viral load (a measure of how successful the patient is containing the HIV virus).

We found that for our patients who displayed higher levels of emotional/cognitive processing of stressful events their disease progressed significantly more slowly over 4 years than for those who had lower levels. This suggests that patients who confront major stress in their lives in a realistic way, actively identify and attempt to solve the problems caused by the stress, feel good about themselves, and tolerate the distress will reap the immune benefit and have a more favorable disease course.

It may be very important for counselors working with people with HIV who have a history of stressful life events to include in their treatment strategies to help their patient fully process these events. Successful resolution of stressful life events may result not only in psychological benefit but also in immune benefit.

# # #
Researchers Debate Age-Old Question: Is Religion Good for Your Health?

Budapest, Hungary - Medical experts have remained skeptical about a basic tenet of faith espoused by anyone who has ever prayed for their team to win a football game, for divine intervention during a final exam, or – more seriously – for the well-being of a loved one.

Experts gathered at the American Psychosomatic Society Annual Meeting in Budapest, looked at recent scientific studies purporting to prove – or disprove – the influence of prayer on a patient’s recovery from illness, and whether or not regular church-going is beneficial to one’s health.

In a symposium on March 7, chaired by Paul J. Mills, Ph.D., professor of psychiatry at the University of California, San Diego (UCSD) School of Medicine, scientists examined the growing interest in, and scientific evidence in support of, the power of prayer.

“While testing the success of remote, intercessory prayer on behalf of a sick patient may be relatively simple, it requires the cooperation of a higher power who both heeds the prayers and respects a random clinical trial when making life and death decisions,” said Nicholas Christenfeld, Ph.D., UCSD professor of psychiatry.

Jeffrey Dusek, Ph.D., Director of Behavioral Sciences Research at Harvard’s Beth Israel Deaconess Medical Center, conceded that recent studies of patients receiving intercessory prayer had little effect on the rate of uncomplicated recovery after coronary artery bypass graft surgery. He stated, however, that private or family prayer is widely believed to influence recovery from illness that additional study is required – a stance at odds with the position of Richard P. Sloan, Ph.D., Professor of Behavioral Medicine at Columbia University Medical Center. “Such claims are incompatible with current views of the physical universe and consciousness,” said Sloan.

For those who believe that staying well in the first place may be the end-product of a church-going life, the panel of experts took opposing views on this too.

While some of the strongest evidence in the field shows that regular attendance at religious services confers a health benefit, experts disagree on whether or not this is a causal effect. Chris Ellison, Ph.D., chair of the Department of Sociology at the University of Texas, offered evidence in support of a positive link between religion and mortality.

The approach – of examining the effects of attending services on the church-goers’ health – doesn’t require the existence of a divinity or even necessarily a belief in one. But, doubters say that church attendance may be just a proxy for simple social contact, and claim that statistical procedures for establishing the role of religiosity on health are fallible.

In conclusion, Mills said, “Until more convincing methodological studies are undertaken, it appears that the link between prayer and health is more a matter of faith than science.”

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