

Five-Minute Stress Relief.com

New Negative Findings About Stress

Stress Leads to Overeating

After studying over 5,000 people, researchers have published their results in the professional journal *Preventive Medicine*, which found that people who were stress-related eaters were more likely to binge on pizza, sausages, chocolate and alcohol. For women, stress-related eating was highly related to obesity. As for men, young men were more prone to stress anxiety binging because of work stress, as opposed to middle-aged and older men.

Scientists studied their 5,000 subjects at different periods of their lives – birth, one year, 14 years and 31 years. At their adult age, each was evaluated for body mass index, eating patterns, and means of dealing with stress effects. For men, those who were single, divorced or frequently out of work were more prone to stress generated eating. For women, those who described themselves as lacking emotional support had more susceptibility for stress generated binging.

Night Eating Syndrome Due to Stress

This syndrome is defined as feeling a lack of appetite during daytime hours and at night experiencing insomnia and increased hunger (defined as consuming *over half of one's daily food consumption* after 8 PM). Upon deeper study, it has been determined that nighttime eaters have an altered pattern of hormonal secretion as opposed to daytime eaters – the results being published in *American Journal of Physiology-Endocrinology and Metabolism*.

To investigate this syndrome, scientists studied two groups of women, five night eaters and five daytime eaters. Then they injected the subjects with the hormone that triggers our fight-or-flight response. There was a very big difference in how the two groups reacted, with the night eaters showing only a slight rise in stress hormones, while the daytime eaters exhibited a dramatic increase in stress hormones.

These results show that the nighttime eaters were stressed 24 hours a day, therefore their bodies showed little response to the triggering of more stress hormones. Overall, the night eating syndrome indicates a lack of healthy interaction between the adrenals, which trigger the fight-or-flight response, and the hypothalamus, the center of appetite control, and the pituitary gland, which manufactures the body's hormones.

Stress Intensifies Cold and Flu Symptoms

Researchers have determined that there is a physiological connection between psychological stress anxiety and the degree of cold and flu symptoms. Publishing their result in the medical journal *Psychosomatic Medicine*, scientists have identified that when people are under mental and emotional stress effects, their bodies' produce greater amounts of an immune system biochemical called *interleukin-6* (a protein that orchestrates our body's immune response).

In the process of this discovery, researchers quarantined 55 volunteers, injected them with a virus, and then measured their amount of mucous production and levels of interleukin-6. In addition, they had the volunteers complete detailed questionnaires about their levels of stress. Results showed that those individuals under greater amount of stress reacted to the infection with increased intensity of symptoms, more amount of mucous production and elevated levels of interleukin-6 in their nasal secretions.

In another study published in the medical journal *Epidemiology*, scientists have found, after studying over 1,100 college students and staff, those with a negative stress health attitude are four times more prone to be struck with a cold, and that people under a prolonged duress of stress were three times as likely – in spite of using vitamin C and zinc.

Stress Damages Teeth, Gums

A new study published in the dental science issue *Journal of Periodontology* reports that researchers have found that minimizing the stress related hormone cortisol is a key to reducing *periodontal diseases* (a collection of inflammatory diseases affecting the tissues that surround and support the teeth). *Periodontitis* involves the progressive loss of the bone around teeth, which may lead to loosening and eventual loss of teeth if untreated.

The study revealed that elevated levels of cortisol could bring about accelerated destruction of the gums and jawbone. After evaluating a large number of studies over 16 years (1990-2006), the scientists found the 57% of the studies recognized a strong link between stress, anxiety, depression and periodontal disease.

Another study published in the medical journal *Circulation*, which examined 256 heart patients and 250 healthy volunteers, has connected dental cavities, inflamed gums, gingivitis, loss of teeth and other dental problems with an elevated risk of heart disease, diabetes and cancer.

Link Found Between Teens' Stress Levels And Acne

Researchers from Wake Forest University School of Medicine have run the largest study ever performed on teenagers, which revealed that high levels of stress were 23% more prone to increase acne severity.

The teenagers had a mean age of just under 15 years of age. Levels of stress were calculated through a commonly used 14-point questionnaire. Acne severity was calculated employing a method classifying acne on the basis of type and number of lesions. 95% of the adolescents reported suffering from acne and the teenagers were evaluated right before mid-year exams (which decide eligibility for entrance to a university or a lesser institution) and during summer break. Scientists suspect that stress multiplies the quantity of sebum, resulting in increased acne severity.

Chronic Stress Worsens Neurodegenerative Disease

Researchers at Texas A & M University presented their study (*Severe or Traumatic Stress and Inflammation in Multiple Sclerosis*) at the 115th Annual Convention of the American Psychological Association demonstrating that prolonged stress intensifies central nervous system inflammation and elevates one's risk for producing central nervous system infections, neurodegenerative diseases (like multiple sclerosis) and other inflammatory diseases.

Using an animal model, scientists proved that increases in the cytokine interleukin-6, which is secreted during stress (and regulates the crucial aspect of the immune system which fights infection) can cause socially stressed mice to become vulnerable to MS-like diseases.

This finding adds to an increasing body of evidence in *both animal and human studies* which points to the exposure of stress as increasing and sustaining the secretion of pro-inflammatory cytokines following an assault on the immune system. The authors summarized their findings by commenting that this cytokine response from prolonged stress seems to occupy a central role in worsening acute CNS infections and the furthering of more negative autoimmune responses.

Stress Robs Skin of Antimicrobial Defenses

A new report, published in *The Journal of Clinical Investigation*, has identified how stress increases one's vulnerability to skin infections. Under highly stressed conditions, laboratory mice showed a large drop in antimicrobial peptides on the skin's epidermis when exposed to streptococcal bacteria (which can cause skin infections, severe sore throats and even flesh-eating disease). Antimicrobial defense mechanisms deal with 99.5 % of all by microbial pathogens.

Sources: Cortisol Stress Response is Positively Correlated with Central Obesity in Obese Women with Binge Eating Disorder (BED) Before and After Cognitive-Behavioral Treatment *Annals of the New York Academy of Sciences* 2004 Dec 1032:202-7
Cortisol Responses to Mild Psychological Stress are Inversely Associated with Proinflammatory Cytokines *Brain, Behavior, and Immunity* 2003 Oct;17(5):373-83
Stress-Induced Modulation of Skin Immune Function *The British Journal of Dermatology* 2004 Jul;151(1):50-64
Psychological Stress and the Subsequent Appearance of New Brain MRI Lesions in MS *Neurology* 2000;55:55-61