

Depression Increases Obesity Risk *Avoid the trigger points, control your future health*

The obesity rate in the U.S. runs in the 25% to 30% range—but that rate doubles in individuals who are depressed.

The fall kicks off a slew of festivities and holidays, right up to New Year's. Add the known trigger points for depression—physical demands, time constraints, over-budget expenditures, relationship pressures—and you just may be upping your risk for obesity, per a new study.

Published October 2009 on the *British Medical Journal* site, www.bmj.com, the research is one of the longest studies to investigate depression's influence on obesity. Mika Kivimaki, PhD, professor of social epidemiology at the University of College London, led the prospective cohort study, which used four measures of common mental disorders and obesity, following participants over a 19-year period (Whitehall II study).

Study design, findings. Set in London's civil service departments, the research included 4,363 adults (government workers), age 35 to 55 when enrolled in the study, from mid- to late 80s.

- Investigators began with people who weren't obese.
- Physical (weight, height, body mass index) and mental health exams occurred at the study's onset as well as three other junctures over its 19-year period.
- The more times "mental health symptoms" were reported, the higher the risk for obesity—suggesting an association between mental disorders and weight gain.

After adjusting for known obesity risk factors, study participants having depression, anxiety or other mental health problems at the beginning of the research demonstrated a **higher likelihood of becoming obese** over those without those mental health symptoms.

Does the reverse hold true? Kivimaki says linking the reverse—obesity leading to depression—wasn't clear in their study. However, other studies suggest an increase in food consumption and reduced physical activity are common denominators of depression.

Harvard study says psychological stress = weight gain. The July 15th *American Journal of Epidemiology* published research conducted by Jason Block, MD, MPH at Harvard University, conducted while he was a Robert Wood Johnson Foundation Health & Society Scholar.

Per Block, "Stress should be recognized as a threat to the well-being of American adults, especially those who are already overweight."

Unlike Kivimaki's study, Block's work didn't focus on how stress impacted weight gain. Block reviewed data related to 1,355 individuals, age 25 to 74, who were part of the Midlife in the United States study. At the beginning of the study, investigators used phone surveys to evaluate participants' psychosocial stress levels.

Block and colleagues suggest that deciphering how stress is linked to weight gain has a lot to do with a patient's starting weight.

Weapons Against Stress-Induced Weight Gain

- Identify the trigger point: Is it financial, relationship based, increased demands, etc.
- Set aside time every day to exercise, relax and even take a break from family and work demands
- Get enough sleep: Sleep deprivation is linked to weight gain, higher levels of stress and higher levels of depression
- Talk to your physician about a multi-faceted plan (nutritional, exercise, hormonal, supplements) to get your body back in balance



Harvard research findings.

- Having a higher body mass index at the study's onset meant more weight gain in response to stress factors.
- Thinner study participants didn't demonstrate that weight gain response, despite undergoing similar stressors.
- Men were more likely to gain weight in scenarios such as job demands, lack of decision-making authority, difficulty paying bills and lack of skill discretion (ability to learn new skills and perform interesting new duties).
- Women, not men, were more likely to gain weight related to general life stressors, such as strained family relationships.
- People may change eating patterns and food choices when attempting to cope with stressful periods.
- Workplace stress-reduction programs should be part of weight loss programs for overweight/obese individuals, per researchers.

Complicating the problem, furthering stress. A study published in *Cell* in late 2008—led by Dongsheng Cai, MD, PhD at the University of Wisconsin—suggested that overeating can actually stimulate a metabolic response in the brain that induces cravings to eat more, creating a vicious cycle of elevated calorie consumption that can lead to obesity, diabetes and insulin resistance. A high-fat diet only magnifies the problem, escalating the cycle twofold.

The stress-induced weight gain factor: cortisol. Psychosocial stress increases cortisol, a hormone formed in your adrenal glands that helps you cope with stress and infection, regulates blood pressure, increases energy and influences metabolism and glucose balance.

- **Too much cortisol increases glucose levels, leads to weight gain (mostly abdominal), depresses immune function, and accelerates aging.**
- **It also increases epinephrine (adrenaline) levels, which increases cardiac workload and blood pressure.**

So when stress kicks in, your endocrine system goes on alert, releasing cortisol to handle the perceived danger (real, emotional, physical or otherwise) and help you subsequently return to feeling good and energized.

Extended stress periods not only play havoc on your body's nutritional reserves, wearing out your adrenals, but they also keep your body flooded with cortisol. The result? High blood pressure, stubborn abdominal fat and a suppressed immune system, making you more susceptible to infections and diminished health.

Stop the vicious cycle now. You don't have to get caught in the stress-weight gain circle. Freedom starts with recognizing the problem and getting ongoing expert help to make the right lifestyle interventions successful in the short and long run.

Get your life back on track, lose that extra weight and start feeling energized again. Grounded in solid science and research, Cenegenics® Medical Institute—the recognized leading authority on age management medicine—offers well-established protocols with four synergistic components to guide you to a longer health span and improved quality of life.

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