

## Is there a link between stress and bad belly fat?

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The Doctor Weighs In in Abdominal obesity, Complications of obesity, Diabetes, Healthy behaviors, Healthy eating, Hormones, Insulin resistance, Overweight/obesity, Portion control, Prevention of diabetes, Appetite regulation, Research on obesity/overweight, Weight loss, Weight loss behaviors, Stress/stress management, Research, The Doctor Weighs In, TDWI, Pat Salber, Diets, Type 2 diabetes, Insulin, Mindful eating, Soul-full eating, Maureen Whitehouse, Visceral fat, Cortisol

We have known for a long time that the distribution of fat in the body is important in determining important health risks, such as type 2 diabetes and cardiovascular disease. “Apples” (or the abdominally obese) are at much greater risk than pear-shaped people who tend to deposit their fat in the hips, thighs and butts.

More recently, researchers have determined that one type of belly fat, called visceral fat, is worse than belly fat just below skin. Visceral fat is deposited the omentum, the tissue that drapes around the intestines and other abdominal cavity organs (or viscera). You don’t have to be obese to have visceral fat. One the other hand, not all people who are obese develop significant amounts of this “bad fat.”

An article in the [San Francisco Chronicle](#) reports that recent research suggests that abdominal fat is related to the release of the stress hormone, cortisol. According to UCSF’s assistant professor of psychiatry, Elissa Epel, an expert on the physiological effects of stress, cortisol which is released when people are under stress, seems to interact with the pancreatic hormone, insulin, to create visceral fat. At the same time, cortisol stimulates a craving for “comfort foods” – the sweet stuff and the stuff high in fat. This is a double whammy – you desire and, as a result, often consume high calorie foods *and* you deposit those excess calories as bad fat in your belly.

To test the hypothesis that stress is related the deposition of visceral fat, researchers at the University of California San Francisco are recruiting 50 overweight women to participate in a study on the impact of stress relief techniques on body fat, particularly visceral fat. The study is not designed to help the participants lose weight per se, rather it is designed to reduce stress and stress-related eating.

The 50 women will be divided into two groups. One group will start stress reduction classes right away, the other won’t start these classes until after 6 months have passed. The classes will teach women stress reduction techniques and will also teach them how to recognize triggers that prompt stress-related eating. They will also be taught “mindful eating.”

I described mindful eating in my recent post “[Getting in touch with your feelings... about raisins.](#)” In that post, I describe a “raisin exercise” developed by the author of [Soul-Full Eating](#), Maureen Whitehouse. This approach to eating involves really engaging with the foods you eat. As opposed to gulping them down as many of us do in the course of our hectic lives, you are taught to visually examine the food and then explore it with your fingers and hands. When you put it in your mouth, you explore it with your tongue and chew it, ever so slowly, letting the flavors linger in your mouth and in your mind.

According to a co-researcher on the UCSF study, Jennifer Daubenmier, a postdoctoral fellow with the UCSF Center for Obesity Assessment, Study and Treatment, mindful eating helps participants to think about how and why they eat. The goal of the UCSF program is to ultimately help the participants make better, smarter food choices. Although weight loss is not the goal, it is hoped that the program will result in a reduction of bad belly fat.

To qualify for the study, women must weigh less than 300 pounds and have apple-shaped figures. They must be between 21 and 50 years old. They must not be recently pregnant, diabetic or have heart disease. If you fit these criteria and are interesting in participating in the study, send an email to [ucsfcalmmstudy@yahoo.com](mailto:ucsfcalmmstudy@yahoo.com). If you want to learn more about what it means to participate in a clinical trial, [click here](#).

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