

Eating in response to anxiety or sadness is linked with heart damage

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It's not just what we eat, but why we eat that's important for heart health, according to research published today in the *European Journal of Preventive Cardiology*. The study found that emotional eating was associated with cardiovascular problems, and that stress contributed to this relationship.

"Emotional eaters consume food to satisfy their brains rather than their stomachs," said study author Professor Nicolas Girerd, coordinator of the Clinical Investigation Center (CIC-P) and a cardiologist at the University Hospital of Nancy, France. "Mindful eating can help break this habit. It means taking time out to eat, either alone or with others, being in the moment and aware of what you are doing, and not being distracted by your phone or the TV."

"Stress might be one of the reasons for eating in response to feelings instead of hunger," said lead author Dr. Sandra Wagner, a nutritional epidemiologist at the CIC-P. "We know that emotional eaters are less aware of hunger and satiety but [mindful eating](#) brings attention to these physical sensations. Physical activity—either a walk or more intense exercise—is another way to avoid [emotional eating](#) because it relieves stress and provides a replacement activity. Just 10 minutes a day of meditation or breathing exercises can also help to recenter and reduce stress. To sum up, use the three Ms to kick the habit of emotional eating: move, meditate and mindful eating."

This was the first study to assess the association between eating behaviors in healthy individuals and cardiovascular damage 13 years later. The study included 1,109 participants of the STANISLAS cohort, which enrolled parents and adolescents in the Lorraine region of northeast France between 1993 and 1995. Emotional eating, which is the tendency to overeat in response to [negative emotions](#) such as sadness or anxiety, was assessed using the Dutch Eating Behavior Questionnaire.

Measures of cardiovascular damage included carotid-femoral pulse-wave velocity and [diastolic dysfunction](#), which indicate stiffness in the arteries and heart, respectively. According to previous studies, rises in pulse-wave velocity, meaning stiffer arteries, are associated with higher risks of heart disease and stroke. Diastolic dysfunction, meaning the heart relaxes insufficiently after contraction, is correlated with a greater likelihood of developing heart failure.

Associations between emotional eating and cardiovascular damage were analyzed after adjusting for age, sex, [education level](#), diabetes, hypertension, the median age difference between measurement of eating behavior and cardiovascular damage, body mass index, [blood lipid levels](#), [physical activity](#), other measures of eating behavior, and the onset of cardiovascular disease during follow-up.

Among the 916 adults, the median age at the time of eating behavior measurement was 44.7 years and nearly half (49.7%) were women. The median time between measurement of eating behavior and cardiovascular damage was 13.4 years. Emotional eating was associated with higher pulse-wave velocity (stiffer arteries) and a 38% increased risk of diastolic dysfunction (stiffer heart).

The authors performed a mediation analysis to explore potential explanations for the associations. They found that stress level explained 32% of the association between emotional eating and diastolic dysfunction. "The reward system may be particularly involved in emotional eating, where eating may reduce anxiety and eating comfort foods may blunt the response to acute stress," states the paper.

Energy intake was not a mediator of any associations. Professor Girerd explained, "We might expect that emotional eaters would consume high-calorie foods, which would in turn lead to [cardiovascular problems](#) but this was not the case. One explanation is that we measured average

calorie intake and emotional eaters may binge when stressed and then eat less at other times. This yo-yo pattern may have negative effects on the heart and [blood vessels](#) compared with stable food intake."

The authors concluded that efforts to prevent cardiovascular disease should address eating behaviors on top of nutritional content. Dr. Wagner said, "Techniques to tackle emotional eating are already used to help obese individuals. Our study suggests that these strategies should be extended to all emotional eaters, regardless of weight, to stop [cardiovascular damage](#) later in life."

More information: Anfisa Puchkova-Sistac et al, Association between eating behaviour and 13-year cardiovascular damages in the initially healthy STANISLAS cohort, *European Journal of Preventive Cardiology* (2023). [DOI: 10.1093/eurjpc/zwac287](https://doi.org/10.1093/eurjpc/zwac287)

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