

High-Salt Diet Linked to Obesity, Inflammation

Source: *Food Product Design*

Large amounts of salt consumed by adolescents links to obesity and inflammation, according to a new study published in the journal *Pediatrics*. High sodium intake has frequently been associated with higher weights, possibly because of increased water retention.

Because most Americans exceed the recommended sodium intake, researchers from Georgia Regents University conducted a study to find out what this high-salt diet means for consumers' health. Out of 766 healthy teens involved in the study, 97% self-reported exceeding the American Heart Association's recommendation of consuming less than 1,500 milligrams of sodium daily.

"The majority of studies in humans show the more food you eat, the more salt you consume, the fatter you are," said lead researcher Haidong Zhu, molecular geneticist at the Medical College of Georgia and Institute of Public and Preventive Health at Georgia Regents University. "Our study adjusted for what these young people ate and drank, and there was still a correlation between salt intake and obesity."

The high-sodium consumers also had high levels of tumor necrosis factor alpha, which is secreted by immune cells and contributes to chronic inflammation, as well as autoimmune diseases like lupus and arthritis. Additionally, the adolescents had high levels of leptin, a hormone produced by fat cells that normally suppresses appetite and burns fat, but at chronically high levels can have the opposite effects.

"Losing weight is difficult, but hopefully more people can be successful at reducing their sodium intake," Zhu said. Reductions would result from not automatically adding salt to food and choosing fresh fruits and vegetables over fries, processed meats and snacks.

"We hope these findings will reinforce for parents and pediatricians alike that daily decisions about how much salt children consume can set the stage for fatness, chronic inflammation and a host of associated diseases like hypertension and diabetes," said study co-author Gregory Harshfield, director of the Georgia Prevention Center at the GRU institute.

While the new study does not prove a causal effect, it contributes to mounting evidence that high sodium could be a direct cause of obesity and inflammation. Longitudinal or randomized clinical trials are needed to clarify the relationships, the researchers said.

High-sodium diets have been linked to several other health issues, such as kidney stones and osteoporosis. U.S. restaurants have not made it any easier for consumers to reduce their sodium intake, as the overall calorie and sodium levels in chain restaurant's main dishes remain high.

Sources:

- EurekAlert: Adolescents' salt intake correlates with obesity, inflammation