

## An Apple a day keeps obesity away?

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The non-digestible compounds in apples specifically, Granny Smith apples may help prevent disorders associated with obesity, said scientists at the Washington State University.

"We know that, in general, apples are a good source of these non-digestible compounds but there are differences in varieties. Results from this study will help consumers to discriminate between apple varieties that can aid in the fight against obesity," said food scientist Ms Giuliana Noratto, the study's lead researcher.

According to the researchers, the tart green Granny Smith apples facilitate the growth of friendly bacteria in the colon due to their high content of non-digestible compounds, including dietary fiber and polyphenols, and low content of available carbohydrates. Despite being subjected to chewing, stomach acid, and digestive enzymes, these compounds remain intact when they reach the colon. Once there, they are fermented by bacteria in the colon, which benefits the growth of friendly bacteria in the gut.

The study showed that Granny Smith apples surpass Braeburn, Fuji, Gala, Golden Delicious, McIntosh, and Red Delicious in the amount of nondigestible compounds they contain.

"The nondigestible compounds in the Granny Smith apples actually changed the proportions of fecal bacteria from obese mice to be similar to that of lean mice," Ms Noratto said.

The discovery could help prevent some of the disorders associated with obesity such as low-grade chronic inflammation that can lead to diabetes. The balance of bacterial communities in the colon of obese people is disturbed. This results in microbial byproducts that lead to inflammation and influence metabolic disorders associated with obesity, Ms Noratto said.

Re-establishing a healthy balance of bacteria in the colon stabilizes metabolic processes that influence inflammation and the sensation of feeling satisfied, or satiety.