

Healthy Diet May Counteract Heart Disease Gene

Piling plates with fruit, veggies, berries reduced genetic risk in large study



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A healthy diet with lots of fruits and vegetables can significantly weaken the effect of a gene associated with an increased risk of heart disease, a new study suggests.

In the study, published in the current online edition of the journal *PLoS Medicine*, researchers examined the link between the 9p21 gene variant and diet in more than 27,000 people of five ethnicities -- Arab, European, Chinese, Latin American and South Asian.

The findings showed that the risk of heart attack in people with the 9p21 gene variant who ate a healthy diet composed mainly of raw vegetables, fruits and berries was similar to that of people without the high-risk gene variant.

The international study was led by researchers at McMaster and McGill universities in Canada.

"We observed that the effect of a high-risk genotype can be mitigated by consuming a diet high in fruits and vegetables," joint principal investigator Sonia Anand, a researcher at the Population Health Research Institute and a professor of medicine and epidemiology at McMaster's School of Medicine, said in a McMaster University news release. "Our results support the public health recommendation to consume more than five servings of fruits or vegetables as a way to promote good health."

"Our research suggests there may be an important interplay between genes and diet in cardiovascular disease," added lead author Ron Do, who is now at the Center for Human Genetics Research at Massachusetts General Hospital but conducted the research as part of his doctoral program at McGill. "Future research is necessary to understand the mechanism of this interaction, which will shed light on the underlying metabolic processes that the 9p21 gene is involved in."