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## A single consumption of curry improved postprandial endothelial function in healthy men

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**Background & Aim:** Curry, one of the most popular foods in Japan, contains spices that are rich in potentially antioxidative compounds, such as curcumin and eugenol. Oxidative stress is thought to impair endothelial function associated with atherosclerosis, a leading cause of cardiovascular events. The aim of this study was to determine whether a single consumption of curry meal would improve endothelial function in healthy men.

**Methods:** Fourteen healthy male subjects (BMI  $23.7 \pm 2.7$  kg/m<sup>2</sup>; age  $45 \pm 9$  years) were given a single serving of curry meal or spice-free control meal (180 g of curry or control and 200 g of cooked rice; approximately 500 kcal in total) in a randomized, controlled crossover design. Before and 1 hour after the consumption, fasting and postprandial flow-mediated vasodilation (FMD) responses and other parameters were measured.

**Results:** The consumption of the control meal decreased FMD from  $5.8 \pm 2.4\%$  to  $5.1 \pm 2.3\%$  ( $P=0.039$ ). On the other hand, the consumption of the curry meal increased FMD from  $5.2 \pm 2.5\%$  to  $6.6 \pm 2.0\%$  ( $P=0.001$ ) and the postprandial FMD after the curry meal was higher than that after the control meal ( $P=0.002$ ). Presence of spices in the curry did not alter significantly the systemic and forearm hemodynamics or any biochemical parameters including oxidative stress markers measured.

**Conclusions:** These findings suggest that the consumption of curry ameliorates postprandial endothelial function in healthy men and may be beneficial for improving cardiovascular health.

### Biography

Hideki Nakayama has completed his MSc from Kyoto University in 1995. He is the Chief Researcher of House Foods Corporation, Tokyo, Japan and has engaged in research on health function of spices.

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