

PubMed

Effects of the brown rice diet on visceral obesity and endothelial function: [Abstract](#)[Full text links](#)

CAMBRIDGE

Journals Online  
Full text**See 1 citation found by title matching your search:**[Br J Nutr.](#) 2014 Jan 28;111(2):310-20. doi: 10.1017/S0007114513002432. Epub 2013 Aug 12.

## Effects of the brown rice diet on visceral obesity and endothelial function: the BRAVO study.

[Shimabukuro M](#)<sup>1</sup>, [Higa M](#)<sup>2</sup>, [Kinjo R](#)<sup>3</sup>, [Yamakawa K](#)<sup>2</sup>, [Tanaka H](#)<sup>4</sup>, [Kozuka C](#)<sup>2</sup>, [Yabiku K](#)<sup>2</sup>, [Taira S](#)<sup>2</sup>, [Sata M](#)<sup>5</sup>, [Masuzaki H](#)<sup>2</sup>.

### Author information

### Abstract

**Brown rice** (BR) and white **rice** (WR) produce different glycaemic responses and their consumption may affect the dietary management of **obesity**. In the present **study**, the **effects** of BR and WR on abdominal fat distribution, metabolic parameters and **endothelial function** were evaluated in subjects with the metabolic syndrome in a randomised cross-over fashion. In **study 1**, acute postprandial metabolic parameters and flow- and nitroglycerine-mediated dilation (FMD and NMD) of the brachial artery were determined in male volunteers with or without the metabolic syndrome after ingestion of either BR or WR. The increases in glucose and insulin AUC were lower after ingestion of BR than after ingestion of WR ( $P=0.041$  and  $P=0.045$ , respectively). FMD values were decreased 60 min after ingestion of WR ( $P=0.037$  v. baseline), but the decrease was protected after ingestion of BR. In **study 2**, a separate cohort of male volunteers ( $n=27$ ) with the metabolic syndrome was randomised into two groups with different BR and WR consumption patterns. The values of weight-based parameters were decreased after consumption of BR for 8 weeks, but returned to baseline values after a WR consumption period. Insulin resistance and total cholesterol and LDL-cholesterol levels were reduced after consumption of BR. In conclusion, consumption of BR may be beneficial, partly owing to the lowering of glycaemic response, and may protect postprandial **endothelial function** in subjects with the metabolic syndrome. Long-term beneficial **effects** of BR on metabolic parameters and **endothelial function** were also observed.

PMID: 23930929 [PubMed - indexed for MEDLINE]

[Publication Types, MeSH Terms, Substances](#) [LinkOut - more resources](#) [PubMed Commons](#)[PubMed Commons home](#)

0 comments

[How to join PubMed Commons](#)