

Dietary fiber critical in managing hypertension, international study finds

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High blood pressure, or hypertension, remains a global health concern, contributing to 19% of deaths worldwide. In an [international review](#) led by Monash University scientists and published April 8 in *Hypertension*, biologists highlight the pivotal role of dietary fiber in managing hypertension and reducing cardiovascular disease (CVD) risk, and call for the inclusion of dietary fiber in clinical guidelines for hypertension.

The review sheds light on the often-overlooked importance of dietary fiber in blood pressure management.

"Despite numerous guidelines recommending lifestyle modifications as first-line treatment for hypertension, specific recommendations regarding fiber intake have been notably absent," said lead study author Associate Professor Francine Marques from the Monash University School of Biological Sciences.

"Dietary fiber has emerged as a crucial yet underappreciated part of hypertension management," she said.

"Our comprehensive analysis emphasizes the evidence supporting the effectiveness of dietary fiber in lowering blood pressure and reducing the risk of cardiovascular events."

The findings of the review have significant implications for public health initiatives and future hypertension guidelines.

By recognizing the vital role of dietary fiber, health care professionals can take proactive steps to address hypertension and promote cardiovascular health.

The review outlines a number of findings, including:

- **The Impact of Fiber on Blood Pressure:** Meta-analyses have shown that higher intake of dietary fiber is associated with a significant reduction in systolic and diastolic blood pressure, independent of pharmacological interventions. Each additional 5 grams of fiber per day is estimated to reduce [systolic blood pressure](#) by 2.8 mmHg and [diastolic blood pressure](#) by 2.1 mmHg.
- **Gut Microbiota:** Dietary fiber promotes cardiovascular health through various mechanisms, including modulation of [gut microbiota](#) and the production of short-chain fatty acids (SCFAs). These SCFAs produce anti-inflammatory effects and regulate immune function, contributing to reduced blood pressure.
- **Challenges and Recommendations:** Despite the clear benefits of dietary fiber, global intake remains insufficient, with the average consumption hovering around 11 grams per day. The review provides evidence-based recommendations, suggesting a minimum daily intake of >28g/day for women and >38g/day for men to effectively manage hypertension.

The review also provides resources for medical teams and patients of what foods to prioritize to increase fiber intake and reach their recommendations.

"Our study highlights the urgent need for health care providers to prioritize dietary fiber as vital for hypertension management," Associate Professor Marques said.

"By incorporating dietary fiber into treatment plans and empowering patients to increase their intake, we can significantly reduce the burden of hypertension and improve cardiovascular outcomes."

More information: Hamdi A. Jama et al, Recommendations for the

Use of Dietary Fiber to Improve Blood Pressure Control, *Hypertension* (2024). [DOI: 10.1161/HYPERTENSIONAHA.123.22575](https://doi.org/10.1161/HYPERTENSIONAHA.123.22575)

Provided by Monash University

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