

Can Increasing Fruit and Vegetable Intake Decrease High Blood Pressure? A Systematic Review

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1. The facts about high blood pressure. The American Heart Association Web site. 2. Lalji C, Pakrashi D, Smyth R. *Econ Model*. 2018 3. Evenson A, Anderson M, Diley A. *J Acad Nutr Diet*. 2019 4. Järvi A, Karlström B, Vessby B, et al. *Br J Nutr*. 2016 5. Kim J, Kim J. *J Acad Nutr Diet*. 2018 6. Sun B, Shi X, Wang T, Zhang D. *Nutrients*. 2018 7. Wang L, Manson JE, Gaziano JM, et al. *Am J Hypertens*. 2012 8. Rosário R, Santos R, Lopes L, et al. *Nutr Metab Cardiovasc Dis*. 2018

Background

High blood pressure affects 1 in 3 adults in the United States.¹ High Blood pressure is defined by a systolic blood pressure from 130-139 and diastolic blood pressure from 80-89.¹ Uncontrolled high blood pressure can lead to cardiovascular disease, stroke, and kidney disease.¹ High blood pressure is usually treated through pharmaceuticals medications but research suggests that blood pressure may also be managed through changes in diet through an increase in fruit and vegetable consumption.²⁻⁸

Study Design

Articles included all research study types, in all settings, and specifically with adults.

Outcome/Analysis

Articles were reviewed systematically to present the most up to date data on this topic.

Objective: Determine through systematic review of current research if increasing fruit and vegetable consumption can reduce blood pressure.

Methods

Proquest Central, PubMed, Sciencedirect, CINAHL Complete, Medline, and Cochrane databases were used to locate research articles using the MeSH terms: adult, high blood pressure, hypertension, fruit and vegetable intake. Inclusive criteria also specified articles between 2010-2019.



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BLOOD PRESSURE CATEGORY	SYSTOLIC mm Hg (upper number)		DIASTOLIC mm Hg (lower number)
NORMAL	LESS THAN 120	and	LESS THAN 80
ELEVATED	120 - 129	and	LESS THAN 80
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1	130 - 139	or	80 - 89
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 2	140 OR HIGHER	or	90 OR HIGHER
HYPERTENSIVE CRISIS (consult your doctor immediately)	HIGHER THAN 180	and/or	HIGHER THAN 120

Image used from heart.org

Results

The majority of the studies showed that higher consumption of fruit and vegetables resulted in positive health outcomes that include decreased blood pressures.²⁻⁸

Conclusion

Increasing intake of fruit and vegetables can help decrease high blood pressures.²⁻⁸