



---

## **Pomegranates Therapy on Blood Pressure among Hypertensive Patients: A Quasi Experimental Study**

*<sup>1</sup>Arti Srivastava, <sup>2</sup>Prof. Dr. Kavithamole P. J.*

<sup>1</sup>Research Scholar, Shri Venkateshwara University, UP

<sup>2</sup>Research Supervisor, Shri Venkateshwara University, UP

---

### **Introduction**

High blood pressure is defined as a strong force of blood against the artery walls. It means that the heart is working much harder than a normal healthy human's heart. Hypertension is a deadly disorder with no cure, but it may be managed by taking medicine on a regular basis and eating nutritious foods. (Centers for Disease Control and Prevention and the American Heart Association, 2004)

Pomegranate (*Punica granatum*) is a fruit-bearing shrub native to the Middle East that has been extensively cultivated. After effectively removing the bitter pith, the edible seeds (arils) produce a sweet and pleasant delicacy. Pomegranates are said to provide a lot of health advantages in addition to being a tasty salad garnish. Pomegranates are high in fibre, vitamins, and minerals, and drinking pomegranate juice has been shown to lower blood pressure. If this impact is confirmed, pomegranates might aid in the reduction of one of the most significant avoidable causes of early ill health and death..

The function of the nurse in hypertension care across the globe is first and foremost to educate, offer guidance, and test blood pressure. Although studies do agree on the advantages of non-pharmacological therapy, the instruction focuses on changing dietary patterns and physical activity, weight, stress, smoking, and alcohol use. With follow-up visits, the nurse is more effective in interacting with the patient and may spend more time with him/her educational dietary pattern. The nurse's role is to act as a coordinator and translator. and teaching the eating pattern via follow-up visits The nurse's role is to act as a coordinator and translator. Johnson et al. (2010)

Supplementary therapies, often known as 'non-pharmacologic therapy,' have been intensively investigated in recent years' lifestyle modification. According to current studies, Pomegranates prevents atherosclerosis by lowering blood pressure

Even if patients are aware that they are hypertensive, the majority of them are ignorant of complementary and alternative therapy to lower their blood pressure. There haven't been many research to find out what patients know about complementary or alternative medicines. The researcher thinks that alternative medicine may help lower blood pressure. In turn, this will assist health professionals in educating the public, raising awareness, and modifying people's dietary patterns and lifestyles to avoid hypertension in prehypertensive states. As a result, this research was conducted.

---

### **Methodology**

This research used an experimental design to investigate the efficacy of Pomegranates consumption in lowering blood pressure. Randomization was not performed since the whole list of hypertensive patients in the OPD could not be obtained. As a result, this technique was adopted. In this work, a quasi experimental design with non-equivalent control group before and post tests was adopted. The research was carried out at Carrier Medical College in Lucknow. Convenience The sampling approach' was utilised for this study's instrument, which comprised of four pieces. Demographic information, clinical factors, a lifestyle questionnaire, and blood pressure monitoring are all available.

---

### **Results**

The mean post test systolic Blood Pressure level 120.01 in the experimental group is lower than the mean pre test systolic Blood Pressure level 158, and the mean post test diastolic Blood Pressure level 82 is lower than the mean pre test diastolic Blood Pressure level 98. The computed 't' value for systolic 16.9 and diastolic 8.2 are statistically significant at the 0.05 level. This implies that the mean difference between systolic 11.2 and diastolic 9 is a real difference.

Among hypertensive patients, the mean blood pressure level after Pomegranates treatment was lower than the mean blood pressure level before Pomegranates therapy.

There was no correlation between the experimental group's post-test systolic and diastolic blood pressure levels and age, gender, employment, education, length of illness, treatment, dietary pattern, or activity. However, there was simply a link between diastolic blood pressure and BMI.

---

## Conclusion

The research concluded that Pomegranates treatment lowers blood pressure in hypertensive individuals. There is no relationship between the experimental group's post-test systolic and diastolic blood pressure levels and age, gender, employment, education, length of disease, treatment, dietary pattern, or activity. However, there was simply a link between diastolic blood pressure and BMI.

---

## Reference

1. Laaksonen M., Talala K., Martelin T., Rahkonen O., Roos E., Helakorpi S., Laatikainen T., Prättälä R. Health behaviours as explanations for educational level differences in cardiovascular and all-cause mortality: A follow-up of 60 000 men and women over 23 years. *Eur. J. Public Health.* 2008;18:38–43. doi: 10.1093/eurpub/ckm051.
2. Roger V.L., Go A.S., Lloyd-Jones D.M., Benjamin E.J., Berry J.D., Borden W.B., Bravata D.M., Dai S., Ford E.S., Fox C.S., et al. Heart disease and stroke statistics—2012 update: A report from the American Heart Association. *Circulation.* 2012;125:188–197.
3. Ose D., Rochon J., Campbell S.M., Wensing M., Freund T., van Lieshout J., Längst G., Szecsenyi J., Ludt S. Health-related quality of life and risk factor control: The importance of educational level in prevention of cardiovascular diseases. *Eur. J. Public Health.* 2014;24:679–684. doi: 10.1093/eurpub/ckt139.
4. GBD 2015 Eastern Mediterranean Region Cardiovascular Disease Collaborators Burden of cardiovascular diseases in the Eastern Mediterranean Region, 1990–2015: Findings from the Global Burden of Disease 2015 study. *Int. J. Public Health.* 2018;63:137–149. doi: 10.1007/s00038-017-1012-3.
5. Han T.S., Correa E., Lean M.E.J., Lee D.M., O'Neill T.W., Bartfai G., Forti G., Giwerzman A., Kula K., Pendleton N., et al. Changes in prevalence of obesity and high waist circumference over four years across European regions: The European male ageing study (EMAS) *Endocrine.* 2017;55:456–469. doi: 10.1007/s12020-016-1135-y.
6. Martín V., Dávila-Batista V., Castilla J., Godoy P., Delgado-Rodríguez M., Soldevila N., Molina A.J., Fernandez-Villa T., Astray J., Castro A., et al. Comparison of body mass index (BMI) with the CUN-BAE body adiposity estimator in the prediction of hypertension and type 2 diabetes. *BMC Public Health.* 2016;16:82. doi: 10.1186/s12889-016-2728-3.
7. Feng R.-N., Zhao C., Wang C., Niu Y.-C., Li K., Guo F.-C., Li S.-T., Sun C.-H., Li Y. BMI is strongly associated with hypertension, and waist circumference is strongly associated with type 2 diabetes and dyslipidemia, in northern Chinese adults. *J. Epidemiol.* 2012;22:317–323. doi: 10.2188/jea.JE20110120.
8. Kuwabara M., Kuwabara R., Niwa K., Hisatome I., Smits G., Roncal-Jimenez C.A., MacLean P.S., Yracheta J.M., Ohno M., Lanaspá M.A., et al. Different Risk for Hypertension, Diabetes, Dyslipidemia, and Hyperuricemia According to Level of Body Mass Index in Japanese and American Subjects. *Nutrients.* 2018;10:1011. doi: 10.3390/nu10081011.
9. Vidra N., Bijlsma M.J., Trias-Llimós S., Janssen F. Past trends in obesity-attributable mortality in eight European countries: An application of age-period-cohort analysis. *Int. J. Public Health.* 2018;63:683–692. doi: 10.1007/s00038-018-1126-2.
10. Sun B., Shi X., Wang T., Zhang D. Exploration of the Association between Dietary Fiber Intake and Hypertension among U.S. Adults Using 2017 American College of Cardiology/American Heart Association Blood Pressure Guidelines: NHANES 2007–2014. *Nutrients.* 2018;10:1091. doi: 10.3390/nu10081091.