



## EFFECT OF MORNING WALKING ON SYSTOLIC BLOOD PRESSURE OF OLD AGE PEOPLE

**Dr. Sunil Kumar Singh**

**Head of the Department Physical Education and Sports  
Heritage Group Of Institutions , 994 Madhurdaha. Chowbaga Road  
East Kolkata Township, Kolkata- 700107, West Bengal.**

### ABSTRACT :

*Walking is an excellent activity that can either help you get healthier or keep you healthy in the long run. Simply exercising for thirty minutes a day can improve your cardiovascular fitness, bone density, reduce excess body fat, and boost the power and endurance of your muscles. Additionally, it can lessen the likelihood that you will develop conditions such as cardiovascular disease, diabetes type 2, osteoporosis, and certain cancers. Walking, in contrast to some other forms of exercise, does not call for any specialised training or equipment and does not cost anything.*

**KEYWORDS :** *excellent activity, ardiovascular fitness, bone density, reduce excess body fat.*

### INTRODUCTION :

To reap the health benefits of physical activity, it is not necessary for the activity to be performed at a strenuous intensity or for an extended period of time. A study conducted in 2007 on inactive women found that their fitness levels improved significantly, even with a low level of exercise – approximately 75 minutes per week – when compared to a group that did not exercise at all.

Walking is an excellent form of exercise because it puts very little stress on the body, requires very little in the way of special gear, can be done at any time of day, and allows the walker to set their own pace. You don't need to be concerned about the risks that are associated with some more strenuous forms of exercise if you just get out and go for a walk. People who are overweight, elderly, or who haven't exercised in a long time can benefit greatly from walking as a form of physical activity. Walking is also an excellent form of exercise for people who have never exercised before.

It's not necessary to go it alone when you want to get some exercise and enjoy the benefits of walking around your neighbourhood. You can make walking an enjoyable and social part of your lifestyle by taking advantage of the many clubs, locations, and strategies that are available to you. Walking has many health benefits, including the ability to improve circulation, strengthen bones and muscles, increase the length of your life, boost your mood, help you sleep better, support your joints, make it easier to breathe, slow down mental decline, reduce the risk of developing Alzheimer's disease, and allow you to do more for a longer period of time.

According to the findings of a study that was published in the Journal of Clinical Outcomes Management, people who are older than 65 and have symptomatic osteoarthritis may have a lower risk of becoming disabled in the activities of daily living if they



participate in exercise programmes that include aerobic walking and resistance training.

Increases in systolic blood pressure, as opposed to diastolic blood pressure increases, are a more accurate indicator of the likelihood of developing cardiovascular disease.

## METHODOLOGY

The objective of the study is to determine whether or not elderly people in Gwalior who take morning walks have a significant impact on their systolic blood pressure. There are thirty (30) people of advanced age who were chosen at random to participate as subjects in this study. This group of senior citizens frequented the LNIPE campus, where they walked in the morning and in the evening. The ages of the participants ranged anywhere from 60 to 65 years old. Everyone was in good physical shape and therefore capable of performing all of the tests to their full potential. For the purpose of this research, the researcher only took into account a single physiological variable, such as systolic blood pressure. A sphygmomanometer was the instrument that was utilised for the purpose of measuring the systolic pressure.

## ANALYSIS OF DATA

The results of the paired t test, which was used to determine whether or not there were significant differences between the pre-test and post-test means of the two groups (experimental and control groups), are as follows for each of the groups that were chosen to participate in the study:

**Table No. 1**  
**Comparison of mean values of pre and post-test of Systolic pressure of Experimental Group**

Test	Mean	Standard Deviation	Mean Difference	Df	Standard Error	t-ratio
Pre-test	4.33	0.55				
			0.42	14	0.099	4.28*
Post-test	4.75	0.60				

\*Significant at 0.05 level of significance  $t'_{(0.05)(14)} = 2.05$

Table – 1 shows that there is significant difference among pre post-test on systolic blood pressure of old age people of experimental group as calculated value t-ratio 4.28 is significantly higher than tabulated t-value 2.05. Thus, it is proved that 30 days of morning walking had positive effect on systolic blood pressure of old age people.

## RESULTS

The objective of this research was to determine whether or not elderly people who walked in the morning had a lower systolic blood pressure than those who did not. For the purpose of facilitating this study, thirty elderly people who come to the LNIPE campus for walking in the morning and evening from various locations in Gwalior were chosen at random as subjects and divided into two equal groups, which were referred to as the experimental group and the control group. Before and after completing 30 days of morning walking on the LNIPE campus, a pre-test and post-test were administered to the participant. In order to determine the effect of an eight-week conditioning programme, a paired t-test was carried out. A value of 0.05 was chosen as the level of significance.

The walking programme for senior citizens included slow, moderate, and fast walking, depending on the participant's ability. The morning walking programme was carried out every day from 6:00 to 6:40 in the morning, with the exception of Sundays, when participants were given the day off, and the total duration of the exercise programme was forty minutes. Following the completion of the 30 days, all of the data needed for the study were recollected during a morning walk under the direction of a research scholar. The difference between the initial test and the final test was recorded for the purpose of statistical analysis. It

was discovered that elderly people's systolic blood pressure was significantly lowered when they walked in the morning. [Citation needed] [Citation needed] Also, the degree of improvement in people's cardiovascular health was found to have a correlation with the degree of improvement in their walking performance. McDermott, M. M. (2021)

## REFERENCES

- Chalida, N., Ziadatul, E., Melati, F., Dwi, M., & Sugiarto, A. (2019). Effect Of Cucumber Juice And Brisk Walking Exercise On Blood Pressure In Elderly Hypertension Patients. *Midwifery and Nursing Research*, 1(1), 51. <https://doi.org/10.31983/manr.v1i1.4066>
- Fifth Report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. (JNC V) *Arch Intern Med*. 1993;153:154–183. [PubMed] [Google Scholar]
- Hanson, S., & Jones, A. (2015, June 1). Is there evidence that walking groups have health benefits? A systematic review and meta-analysis. *British Journal of Sports Medicine*. BMJ Publishing Group. <https://doi.org/10.1136/bjsports-2014-094157>
- <https://www.arthritis.org/health-wellness/healthy-living/physical-activity/walking/12-benefits-of-walking>
- <https://www.betterhealth.vic.gov.au/health/healthy-living/walking-for-good-health>
- <https://www.mayoclinic.org/healthy-lifestyle/fitness/in-depth/walking/art-20046261>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6119598/#:~:text=Discussion,individuals%20with%20higher%20baseline%20SBP.>
- Hyman DJ, Pavlik VN. Characteristics of untreated hypertension in the United States. *N Engl J Med*. 2001;345:479–486. [PubMed] [Google Scholar]
- Kang, S. J., & Ahn, C. H. (2019). The effects of home-based stair and normal walking exercises on lower extremity functional ability, fall risk factors, and cardiovascular health risk factors in middle-aged older women. *Journal of Exercise Rehabilitation*, 15(4), 584–591. <https://doi.org/10.12965/jer.1938362.181>
- Kannel WN, Schwartz MJ, Mcnamara PM. Blood pressure and risk of coronary heart disease. The Framingham study. *Dis Chest*. 1969;56:43–52. [PubMed] [Google Scholar]
- Lloyd-Jones DM, Evans JC, Larson MG, O'Donnell CJ, Levy D. Differential impact of systolic and diastolic blood pressure level on JNC-VI staging. *Hypertension*. 1999;34:381–385. [PubMed] [Google Scholar]
- Mandini, S., Conconi, F., Mori, E., Caruso, L., Grazi, G., & Mazzoni, G. (2021). Guided walking reduces blood pressure in hypertensive sedentary subjects including those with resistant hypertension. *Journal of Human Hypertension*, 35(3), 226–231. <https://doi.org/10.1038/s41371-020-0324-6>
- Mandini, S., Conconi, F., Mori, E., Myers, J., Grazi, G., & Mazzoni, G. (2018). Walking and hypertension: Greater reductions in subjects with higher baseline systolic blood pressure following six months of guided walking. *PeerJ*, 2018(8). <https://doi.org/10.7717/peerj.5471>
- Paula, T. P., Viana, L. V., Neto, A. T. Z., Leitão, C. B., Gross, J. L., & Azevedo, M. J. (2015). Effects of the DASH Diet and Walking on Blood Pressure in Patients With Type 2 Diabetes and Uncontrolled Hypertension: A Randomized Controlled Trial. *Journal of Clinical Hypertension*, 17(11), 895–901. <https://doi.org/10.1111/jch.12597>
- Slysz, J. T., Tian, L., Zhao, L., Zhang, D., & McDermott, M. M. (2021). Effects of supervised exercise therapy on blood pressure and heart rate during exercise, and associations with improved walking performance in peripheral artery disease: Results of a randomized clinical trial. *Journal of Vascular Surgery*, 74(5), 1589–1600.e4. <https://doi.org/10.1016/j.jvs.2021.05.033>
- Wallis, J. A., Webster, K. E., Levinger, P., Singh, P. J., Fong, C., & Taylor, N. F. (2017). A walking program for people with severe knee osteoarthritis did not reduce pain but may have benefits for cardiovascular health: a phase II randomised controlled trial. *Osteoarthritis and Cartilage*, 25(12), 1969–1979. <https://doi.org/10.1016/j.joca.2016.12.017>

Witkowska, A., Grabara, M., Kopeć, D., & Nowak, Z. (2021). The effects of nordic walking compared to conventional walking on aerobic capacity and lipid profile in women over 55 years of age. *Journal of Physical Activity and Health*, 18(6), 669–676. <https://doi.org/10.1123/jpah.2020-0182>