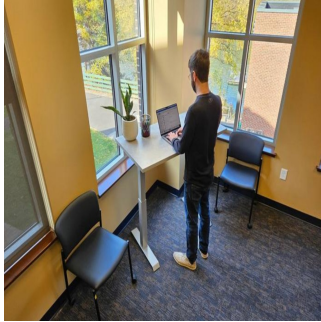


## RESET-BP Trial: Sedentary Behaviour Reduction and Blood Pressure



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According to a recent study, alternating between sitting and standing at work reduces sedentary behaviour but doesn't lower blood pressure. The study also suggests that prolonged standing could negatively impact cardiovascular health. The findings are published in *Circulation*.

In this clinical trial, researchers aimed to see if using sit-stand desks could lower blood pressure for people with hypertension through reduced sitting time. People decreased their sedentary time by over an hour each day by standing more at their desks. This is beneficial since there's strong evidence that excessive sitting is unhealthy, and we should move more.

However, the study found no improvement in blood pressure — whether at rest, during daily activity, or by pulse wave velocity. This is significant because many people believe sit-stand desks will help reduce blood pressure, but findings from this study show no effect.

According to the American Heart Association, nearly half of U.S. adults have high blood pressure, and increasing physical activity is a lifestyle change known to help. Moderate to vigorous activities like brisk walking or cycling reduce blood pressure. But even with 20-30 minutes of daily exercise, many people spend the remaining 16 hours mostly sedentary, which poses health risks.

Observational studies indicate frequent sitting is associated with poorer cardiovascular health. Sitting for extended periods can lead to issues like blood pooling in the legs and elevated blood pressure due to reduced circulation.

In the clinical trial, participants were encouraged to stand for 15-30 minutes each hour and take walking breaks. However, those who stood longer showed increased arterial stiffness, which forces the heart to work harder, marking early cardiovascular disease. While this increase was statistically significant, it was not huge but reflective of how static standing might have similar negative effects as prolonged sitting.

The study enrolled 271 desk workers with elevated blood pressure to increase their workplace activity. Participants received sit-stand desks, wearable activity trackers that buzzed when they hadn't walked 250 steps in an hour, and activity monitors. They also kept diaries to document their behaviours at work and beyond, with assessments including blood pressure and arterial stiffness.

Standing outside work hours showed some benefit in lowering blood pressure, which can be attributed to more active standing behaviours in non-work settings. During leisure activities, people typically move around rather than stand still, promoting blood flow. In contrast, using a sit-stand desk or standing for work often involves more static, prolonged standing, which could contribute to arterial stiffness over time.

However, sit-stand desks still have benefits, such as alleviating back pain and potentially improving glucose levels. However, the study authors advise against prolonged static standing and recommend incorporating movement.

Source: [West Virginia University](#)

Image Credit: WVU Photo/Shaua Johnson

