# Understanding the link between blood pressure and dementia risk



Patients frequently arrive at Accident & Emergency (A&E) departments across the UK in a state of confusion or desperation, often stemming from a lack of understanding about alternative avenues for assistance. One such case involved a gentleman in his late 60s, who attended A&E not due to an accident but rather as a last resort for help with concerning cognitive issues that had surfaced recently.

On the day of his visit, he presented as calm and fit, with his wife assuming most of the communication. She expressed her distress, stating, "We shouldn’t be here... I just don’t know what to do. I can’t cope any more. It’s not safe at home any more. He leaves the oven on and wanders out of the house and forgets things." This gentleman, who had until recently led an active and healthy lifestyle, had worked as an IT director for a prominent pharmaceutical company and had anticipated a fulfilling retirement following his departure from the workforce three years prior.

During the examination, medical professionals arranged for a head scan due to the patient's recent fall. The results indicated brain shrinkage associated with dementia, which was a considerable departure from his previous medical history, where high blood pressure was the only notable concern. His blood pressure, although not classified as high by typical standards, had consistently been in the 140s. This observation has led to discussions about the nuances of blood pressure management and its implications for brain health.

Recent studies have established a link between high blood pressure and an increased risk of dementia. A significant 2023 study published in JAMA Network Open analysed data from over 34,000 adults and concluded that untreated hypertension could elevate dementia risk by 42% when compared to individuals with normal blood pressure. Another study published in the journal Alzheimer’s & Dementia tracked participants over several decades and found that even slight elevations in blood pressure can result in accelerated brain ageing.

Furthermore, findings from a recent pivotal study demonstrated that adults over 50 with high blood pressure benefited from more intensive treatment regimes, achieving systolic blood pressure targets lower than 140 mmHg. Those receiving intensive treatment were 11% less likely to experience mild cognitive impairment or probable dementia over a seven-year follow-up period.

Professor Rob Galloway has voiced concerns over the understanding of blood pressure metrics and their consequences for cognitive health, asserting that proactive measures in midlife can be pivotal for maintaining quality of life in later years. He emphasised the importance of monitoring one’s blood pressure regularly, advocating for personal health management strategies rather than relying solely on general medical recommendations.

Several studies have highlighted dietary factors that may contribute to better blood pressure control. A review conducted in 2012 outlined that garlic supplements could produce reductions in systolic blood pressure similar to some prescription medications. In 2022, research published in Frontiers in Nutrition demonstrated that daily consumption of beetroot could lower blood pressure significantly, suggesting that natural dietary changes may play a crucial role in cardiovascular and cognitive health.

As the public becomes increasingly aware of the long-term health implications associated with hypertension, the need for early detection and intervention grows. The National Institute for Health and Care Excellence currently advises that blood pressure should remain below 140/90 mmHg for those under 80 years, a threshold many experts are now questioning in light of new research findings regarding the risks of even mildly elevated blood pressure levels earlier in life.

The trajectory of brain health in older adults may heavily depend on lifestyle choices made during middle age, underscoring the critical nature of preventative healthcare measures in combatting dementia and maintaining cognitive function.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://pmc.ncbi.nlm.nih.gov/articles/PMC3839390/> - This article highlights the challenges in managing A&E attendances, including those that could be avoided through better understanding of alternative care pathways, which aligns with the scenario of confusion and desperation among patients attending A&E.
2. <https://qualitysafety.bmj.com/content/30/11/884> - This study discusses the relationship between primary care quality and avoidable emergency department attendances, emphasizing the lack of clear definitions for avoidable attendances and the need for better primary care access to reduce unnecessary A&E visits.
3. <https://pmc.ncbi.nlm.nih.gov/articles/PMC7734604/> - This essay explores the concept of avoidable emergency department attendances, highlighting inconsistencies in definitions and methods for identifying these attendances, which is relevant to understanding why patients might end up in A&E unnecessarily.
4. <https://www.england.nhs.uk/statistics/statistical-work-areas/ae-waiting-times-and-activity/> - NHS England's data on A&E attendances and emergency admissions illustrates the high volume of visits, some of which could potentially be managed through alternative services, mirroring the theme of appropriate care pathways.
5. <https://fingertips.phe.org.uk/documents/Atlas_2015_Emergency.pdf> - This document provides insights into A&E attendance trends and variation across England, which supports the need for better utilization of alternative services to manage lesser emergencies and reduce unnecessary visits.
6. <https://www.nice.org.uk/guidance/CG127> - The National Institute for Health and Care Excellence (NICE) guidelines on hypertension management emphasize the importance of maintaining optimal blood pressure levels to prevent complications like cognitive decline, aligning with the discussion on blood pressure and dementia risk.
7. <https://www.dailymail.co.uk/health/article-14606771/Why-having-normal-blood-pressure-sign-dementia-two-everyday-supplements-protect-PROFESSOR-ROB-GALLOWAY.html?ns_mchannel=rss&ns_campaign=1490&ito=1490> - Please view link - unable to able to access data