Systolic blood pressure

- Coherence Analysis of Cardiovascular Signals for Detecting Early Diabetic Cardiac Autonomic Neuropathy: Insights into Glycemic Control
- Risk Factors for Unfavorable Angiographic Outcomes after Reconstructive Endovascular Treatments of Unruptured Vertebral Artery Dissecting Aneurysms
- Biomarkers for Predicting Blood Pressure Response to Renal Denervation
- Improved Home Blood Pressure Control by CT-guided Ozone-mediated Renal Denervation for Patients with Resistant Hypertension
- Analysis of risk factors for the occurrence of rebleeding following surgery for haemorrhagic moyamoya disease
- Does the number of drain tubes influence the formation of postoperative spinal epidural hematoma following biportal endoscopic unilateral laminotomy for bilateral decompression (BE-ULBD) in patients with two-level adjacent lumbar spinal stenosis? a prospective randomized study
- The Effect of Renal Denervation on Capillary Density in Patients With Uncontrolled Hypertension
- Early intensive blood pressure management after endovascular treatment in ischaemic stroke (IDENTIFY): a multicentre, open-label, blinded-endpoint, randomised controlled trial

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The desired systolic blood pressure is 90–119 mm Hg.

High systolic blood pressure accounted for the largest contribution to attributable age-standardized Cardiovascular Disease Disability-adjusted life years (DALYs) at 2,564.9 per 100,000 globally. Dietary risks were the leading contributor to age-standardized CVD DALYs among the behavioral risks, while ambient particulate matter pollution led the environmental risks. Between 2015-2022, age-standardized CVD mortality increased in 27 out of 204 locations. Global death counts due to CVD increased from 12.4 million in 1990 to 19.8 million in 2022 reflecting global population growth and aging and the contributions from preventable metabolic, environmental, and behavioral risks. Eastern Europe had the highest age-standardized total CVD mortality at 553 deaths per 100,000. In contrast, countries in Australasia had the lowest age-standardized total CVD mortality at 122.5 deaths per 100,000 people. Central Asia, Eastern Europe, North Africa and the Middle East had the highest age-standardized mortality rate per 100,000 people attributable to high systolic blood pressure. The regions with the highest rates of CVD burden attributable to dietary risk were Central Asia, Oceania, and parts of North Africa and the Middle East. “Identifying sustainable ways to work with communities to take action to prevent and control modifiable risk factors for heart disease is essential for reducing the global burden of heart disease,” said George A. Mensah, M.D., F.A.C.C., F.A.H.A., director of the Center for Translation Research and Implementation Science at the National Heart, Lung, and Blood Institute (NHLBI). “The 2023 Almanac represents an important resource for using locally relevant data to inform local-level actions for heart-healthy and thriving communities.” [1)].

Intravenous thrombolysis-treated stroke patients with unruptured intracranial aneurysms were more often current smokers and had higher systolic blood pressure than the matched patients without UIAs.

They were as likely to have unfavorable outcomes at 3 months but seemed less likely to achieve excellent outcomes and were more likely to have higher mRS in shift analysis [2].

Low SBP untreated by antihypertensive drugs was associated with a significantly decreased risk of dementia and less amyloid beta (Aβ).

A pooled analyses indicate that achieving early and stable systolic blood pressure seems to be safe and associated with favorable outcomes in patients with acute intracerebral hemorrhage of predominantly mild-to-moderate severity [3].

The Stroke Acute Management with Urgent Risk-factor Assessment and Improvement (SAMURAI)-ICH Study was a multicenter, prospective observational study investigating the safety and feasibility of early (within 3 h from onset) reduction of systolic BP (SBP) to < 160 mm Hg with intravenous nicardipine for acute hypertension in cases of spontaneous intracerebral hemorrhage.

A study of Yamaguchi et al. was a post hoc analysis of the SAMURAI-ICH study. They examined relationships between time from onset, imaging, and initiation of treatment to target SBP achievement and hematoma growth (absolute growth ≥6 mL) in ICH patients. Target SBP achievement was defined as the time at which SBP first became < 160 mm Hg.

Among 211 patients, hematoma growth was seen in 31 patients (14.7%). The time from imaging to target SBP and time from treatment to target SBP were significantly shorter in patients without hematoma growth than in those with ($p = 0.043$ and $p = 0.032$ respectively), whereas no significant difference was seen in time from onset to SBP < 160 mm Hg between groups ($p = 0.177$). Patients in the lower quartiles of time from imaging to target SBP and time from treatment to target SBP showed lower incidences of hematoma growth (p trend = 0.023 and 0.037 respectively). The lowest quartile of time from imaging to target SBP (< 38 min) was negatively associated with hematoma growth on multivariable logistic regression (OR 0.182; 95% CI 0.038-0.867; $p = 0.032$).

Early achievement of target SBP < 160 mm Hg is associated with a lower risk of hematoma growth in ICH [4].

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Moullaali TJ, Wang X, Martin RH, Shipes VB, Robinson TG, Chalmers J, Suarez JI, Qureshi AI, Palesch YY, Anderson CS. Blood pressure control and clinical outcomes in acute Intracerebral hemorrhage: a preplanned pooled analysis of individual participant data. Lancet Neurol. 2019 Sep;18(9):857-864. doi: 10.1016/S1474-4422(19)30196-6. PubMed PMID: 31397290.
4)

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