

# Hypovolemia

Hypovolemia (also hypovolaemia or oligemia) is a state of decreased [blood volume](#); more specifically, decrease in volume of blood [plasma](#).

It is thus the intravascular component of volume contraction (or loss of blood volume due to things such as bleeding or dehydration), but, as it also is the most essential one, hypovolemia and volume contraction are sometimes used synonymously.

Hypovolemia is characterized by [sodium](#) (salt) depletion and thus differs from dehydration, which is defined as excessive loss of body water.

## 2016

In a [retrospective study](#), from all 142 adult patients admitted to a surgical [intensive care unit](#) (ICU) with [aneurysmal subarachnoid hemorrhage](#) between March 2004 and November 2010.

The mean patient age was  $54 \pm 14$  years, 62.7 % were female, and the median [Hunt and Hess Stroke Scale](#) was 3. The proportions of patients with poor outcome ([Glasgow Outcome Scale](#) Score  $\leq 3$ ) were 58.4, 54.2, and 52.1 % at 3, 6, and 12 months, respectively, after the SAH. The ICU and hospital mortality rates were both 12.7 %, and the median lengths of stay in the ICU and the hospital were 16 (IQ 7-25) and 26 (IQ 18-34) days, respectively. In multivariable analysis, older age and greater cumulative fluid balance within the first 7 days in the ICU were independently associated with a greater risk of poor outcome.

In this cohort of patients, older age and greater cumulative fluid balance were independently associated with a greater risk of poor outcome up to 1 year after the initial insult. The data suggest that mild [hypovolemia](#) may be beneficial in the management of these patients <sup>1)</sup>.

<sup>1)</sup>

Sakr Y, Dünisch P, Santos C, Matthes L, Zeidan M, Reinhart K, Kalff R, Ewald C. Poor outcome is associated with less negative fluid balance in patients with aneurysmal subarachnoid hemorrhage treated with prophylactic vasopressor-induced hypertension. Ann Intensive Care. 2016 Dec;6(1):25. doi: 10.1186/s13613-016-0128-6. Epub 2016 Mar 31. PubMed PMID: 27033710; PubMed Central PMCID: PMC4816937.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

<https://neurosurgerywiki.com/wiki/doku.php?id=hypovolemia>

Last update: **2024/06/07 03:00**

