

Redefining normal blood pressure

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As many as 100 million Americans may currently be misclassified as having abnormal blood pressure, according to Dr. Brent Taylor from the Veterans Affairs Health Care System in Minneapolis and the University of Minnesota and his colleagues. Their findings show that these people are not actually more likely to die prematurely than those with 'normal' blood pressure, i.e. below 120/80. Taylor and colleagues' article in the *Journal of General Internal Medicine*, published by Springer, also shows that in those under 50, diastolic blood pressure* is the more important predictor of mortality, whereas in those over 50, systolic blood pressure* is the stronger predictor. The authors argue it is time to consider a new definition of 'normal' blood pressure.

Taylor and colleagues examined the independent contribution of diastolic blood pressure (DBP) and systolic blood pressure (SBP) on mortality, as well as how these relationships might affect the number of Americans currently labelled as having abnormal blood pressure.

The authors looked at data for 13,792 people from the National Health and Nutrition Examination Survey, which enrolled participants in 1971-76 and followed them up for two decades – they studied DBP, SBP and long-term survival data specifically. In order to assess the underlying distribution of untreated blood pressure in American adults by age, Taylor and team also looked at data for 6,672 adults from the first National Health Examination Survey carried out between 1959 and 1962.

They found that in people aged over 50, those with SBPs above 140,

independent of DBP, were significantly more likely to die prematurely. In those aged 50 or less, DBPs above 100 were linked to significant increases in premature death. The authors' analysis offers alternative cut-off points for the definition of 'normal'.

Dr. Taylor concludes: "Our findings highlight that the choice of approach used to define normal [blood pressure](#) will impact literally millions of Americans. If we cannot reliably see an effect on mortality in a large group of individuals followed for nearly 20 years, should we define the condition as abnormal? We believe considering this kind of approach represents a critical step in ensuring that diagnoses are given only to those with a meaningful elevation in risk, and targeted towards individuals most likely to benefit."

More information: Taylor BC et al (2011). Impact of diastolic and systolic blood pressure on mortality: implications for the definition of 'normal'. Journal of General Internal Medicine. [DOI 10.1007/s11606-011-1660-6](#)

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