

Two-arm blood pressure check indicator for risk from heart disease or death

January 29 2012

A systematic review and meta-analysis carried out by researchers at the University of Exeter Peninsula College of Medicine and Dentistry (PCMD) has found that differences in systolic blood pressure between arms could be a useful indicator of the likelihood of vascular risk and death.

The findings add support to the calls for both-arm blood pressure checks to be performed as standard.

The review is published in *The [Lancet](#)* online today and the study is supported by the Royal College of General Practitioners, the South West GP Trust and the National Institute for Health Research Peninsula Collaboration for Leadership in Applied Health Research and Care.

The study reviewed 28 papers covering difference in systolic blood pressure between arms. It found significant evidence to suggest that a difference of 15mm Hg or more was associated with increased risk of: peripheral vascular disease (the narrowing and hardening of the arteries that [supply blood](#) to the legs and feet); pre-existing cerebrovascular disease (affecting the blood supply to the brain and often associated with cognitive issues such as [dementia](#)); and mortality, both as a result of [cardiovascular problems](#) and generally.

The risk of [peripheral vascular disease](#) was also increased at a difference of 10mm Hg or more.

The findings further support the need for both-arm blood pressure checks to be the norm – not least because most cases are 'clinically silent' and such checks would better identify those at risk.

Dr. Christopher Clark, Clinical Academic Fellow at PCMD and a GP in Witheridge, Devon, led the study. He said: "We set out to investigate whether there was an association between differences in systolic [blood pressure](#) between arms and vascular disease and mortality. Our findings indicate a strong association, and that differences of 10mm Hg or 15mm Hg or more might help to identify patients who are at risk and who need further vascular assessment. More research is required in order to transfer our findings to clinical practice, but in the meanwhile we will be flagging the results of our review to the UK Vascular Check programme."

More information: Paper online:

[http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(11\)61710-8/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(11)61710-8/abstract)

Provided by The Peninsula College of Medicine and Dentistry

Citation: Two-arm blood pressure check indicator for risk from heart disease or death (2012, January 29) retrieved 20 April 2024 from <https://medicalxpress.com/news/2012-01-two-arm-blood-pressure-indicator-heart.html>

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