

Teenage hypertension linked to future heart disease

Nursing Times

February 5, 2014 Wednesday

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Length: 442 words

Body

Raised blood pressure in 18-year-olds is a warning of heart disease to come and should signal the start of prevention strategies, say scientists.

Normally interventions to reduce heart disease risk would not be considered until decades later, according to findings published in the [Journal of the American Medical Association](#) has shown.

Researchers in the US studied data from 4,681 participants in the **Coronary Artery Risk Development in Young Adults** Study spanning 25 years.

The men and women from four US cities were aged 18 to 25 when the investigation began.

Those individuals whose blood pressure was raised but still within the normal range at 18 tended to develop high blood pressure, or hypertension, by middle age.

In mid-life, they were four times more likely than participants with lower teenage blood pressure to have arteries to the heart narrowed by hard calcified deposits.

Five blood pressure patterns from young adulthood to middle age were identified.

Just over a fifth of participants belonged to a "low-stable" group whose blood pressure remained healthily low throughout the study.

Around 40% had "moderate levels" of blood pressure, 12% started with moderate levels which increased by the age of 35, 19% had relatively high levels throughout, and 5% started out with elevated levels that went up even further as time passed.

Groups with raised or increasing blood pressure were at the highest risk of developing calcified coronary arteries.

Study leader Dr Norrina Allen, from Northwestern University in Chicago, said: "This shows that your blood pressure in young adulthood can impact your risk for heart disease later in life.

"We can't wait until middle age to address it. If we can prevent their blood pressure from increasing earlier in life we can reduce their risk of future heart attacks and stroke."

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Looking at blood pressure patterns at a relatively young age can indicate how healthy a person's heart and arteries will be in middle age, she added.

It could then be possible to step in early with lifestyle changes, such as a healthier diet or more exercise, that can lower the risk of hypertension.

Co-author Dr Donald Lloyd-Jones, a cardiologist at Northwestern Memorial Hospital, said: "Although blood pressure can be quickly lowered with medication, the damage to the heart and blood vessels that is caused by time spent with elevated blood pressure tends to remain. We can't put the horse all the way back in the barn."

Read the full study in the [Journal of the American Medical Association](#).

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Classification

Language: ENGLISH

Publication-Type: Magazine

Journal Code: Nursing Times

Subject: HYPERTENSION (91%); ADULTS (90%); PUBLIC HEALTH (90%); DISEASES & DISORDERS (90%); HEART DISEASE (90%); CARDIOVASCULAR DISEASE (90%); ASSOCIATIONS & ORGANIZATIONS (89%); SCIENCE & TECHNOLOGY (78%); RESEARCH REPORTS (78%); CARDIOLOGY (78%); PHYSICIANS & SURGEONS (77%); MIDDLE AGED PERSONS (76%); STROKES (73%); WRITERS (72%); BUSINESS & PROFESSIONAL ASSOCIATIONS (72%)

Industry: CARDIOLOGY (78%); PHYSICIANS & SURGEONS (77%); ACADEMIC MEDICAL CENTERS (77%); WRITERS (72%)

Geographic: UNITED STATES (92%)

Load-Date: February 5, 2014