

PROBLEM OF AGING ALSO SHOWING UP IN SOME YOUTHS

OU research reveals problem most significant among American Indian youths

Stiffening of the arteries is not just a problem for the aging. A new study by University of Oklahoma Health Sciences Center researchers finds it can begin in childhood and is a particular concern for American Indian children and young adults.

Your blood vessels are like rubber bands, stretching to accommodate fluctuations in blood flow. This is called arterial elasticity. Lack of elasticity is a risk factor for stroke and heart disease.

In a recent study of 117 healthy subjects ages 8-30, OU researchers discovered arterial elasticity problems in children and young adults. The study found that this was more common in American Indian than Caucasian participants.

Using a special sensor placed on the wrist that measures diastolic blood pressure, researchers were able to measure arterial elasticity.

Compared to Caucasian youth, American Indian youth had 16% less elasticity in their larger arteries and 19% less elasticity in their small arteries.

Researchers said the two groups studied were the same in terms of average weight and height. However, the American Indian participants were found to have a higher percentage of body fat.

“Reduced arterial elasticity is an early predictor of future cardiovascular disease,” said lead researcher Andrew Gardner, Ph.D., but added the outlook for these youths does not have to be bleak.

“Vigorous exercise - even 30 minutes per day - has a protective effect, because it can lower body fat and increase arterial elasticity,” Gardner said.

Gardner, who is the director of the Exercise Physiology Facility of the Pediatric Metabolic Research Program at OU college of Medicine, said his study is the first to assess arterial elasticity in American Indian youth.

The study was funded by a \$100,000 grant from the National Institute of Minority Health and Health Disparities. The research is detailed in the *Journal of Vascular Medicine*.

--The University of Oklahoma Health Sciences Center