**Facts about The Strong Heart Study**

- The Strong Heart Study (SHS) is a study of cardiovascular disease and its risk factors among American Indians.

- The SHS has a field center in each of the following areas: Arizona, the Dakotas, and Oklahoma. SHS also has a coordinating center in Oklahoma, Penn Medical Laboratory in Washington DC, an ECG and ultrasound reading center at Weill Medical College of Cornell University in New York, and a genetics center in San Antonio, TX.

- SHS began in 1988 and has continued through five phases of study. SHS added other family members to the study in 1997.

- SHS is the largest, longest longitudinal study in the U.S. of heart disease and its risk factors in individuals with diabetes.

- SHS is a population based study and has a retention rate of 90%. This shows the extraordinary commitment of SHS participants.

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Visit our web site at:  
http://strongheart.ouhsc.edu

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High Blood Pressure (Hypertension)

What is High Blood Pressure?
Blood pressure (BP) is a measurement of the force against the walls of your arteries as the heart pumps blood through the body. High blood pressure, also known as hypertension, is a condition in which the blood pressure stays high regularly.

High blood pressure places a strain on your heart, which has to work harder to pump blood through the body. It increases your chance of having a stroke, heart attack, heart failure, kidney disease, and damage to other organs. If you have diabetes, the risks are even higher.

Criteria for Hypertension

BP in millimeters of mercury (mmHg)

<table>
<thead>
<tr>
<th>Category</th>
<th>Systolic (top number)</th>
<th>Diastolic (bottom number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>Less than 120 and</td>
<td>Less than 80</td>
</tr>
<tr>
<td>Pre-hypertension</td>
<td>120-139 or</td>
<td>80-89</td>
</tr>
<tr>
<td>Hypertension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage 1</td>
<td>140-159 or</td>
<td>90-99</td>
</tr>
<tr>
<td>Stage 2</td>
<td>160 or higher and</td>
<td>100 or higher</td>
</tr>
</tbody>
</table>

Major Causes of Hypertension
- Obesity
- Too much intake of salt
- Family history of high blood pressure
- Diabetes
- Smoking
- Alcohol
- Stress and anxiety

Hypertension Rates
The following charts compare hypertension rates between the American Indians and the U.S. Non-Hispanic Whites. The data were collected from the Strong Heart Study (SHS — American Indians) and from the National Health and Nutrition Examination Survey (NHANES — Non-Hispanic Whites).

What have we learned:
- The hypertension rate is higher among American Indians than Non-Hispanic Whites. Differences are largest in younger ages
- For American Indians of age 50 and younger, men have higher hypertension rates than women; for age 60 and older, women have higher hypertension rates than men
- Reduction of hypertension should focus on prevention, treatment, and control of blood pressure, especially for young American Indians

How to Prevent Hypertension?
- Follow a healthy eating plan, and limit the amount of salt and alcohol you consume
- Lose weight if you are overweight or obese
- Be physically active at least 30 minutes/day
- Quit smoking
- Manage your exposure to stress and learn to cope with stress

How to Treat Hypertension?
For children and teens:
- Healthy eating focus on fruits and vegetables
- Be physically active for 1 – 2 hours per day
- Maintain healthy weight

For adults:
- Take all blood pressure medicines that your doctor prescribes

Remember, keeping your blood pressure normal will reduce your chance of having heart disease, stroke, and kidney disease!