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.

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

The Strong Heart Study is supported by the National Heart, Lung, and Blood Institute, a component of the National Institutes of Health and the Department of Health and Human Services.
Albuminuria Also Reflects Kidney Problems

Albumin is the most abundant protein in the blood. It leaks into urine when the small blood vessels in the filtering units of the kidneys are damaged (as in diabetes, high blood pressure, or other rarer kidney diseases). Normally, only about 1/1000 of an ounce of albumin is excreted into the urine (for an albumin-to-creatinine ratio of < 30 mg/g).

• A leakage of 30-299 mg/day is defined as microalbuminuria.
• A leakage of 300 mg or more/day is defined as macroalbuminuria (also called proteinuria).
• Some harm may even be associated with levels of albumin in the urine that are considered normal.

Dangers Associated with Albuminuria or Decreased Kidney Function

• Heart disease.
• Stroke.
• Vascular disease (in the legs) and amputations.
• High blood pressure.
• Enlargement of the heart.
• Heart failure.

Risk of these outcomes rises with higher levels of albuminuria or lower GFR.

• When GFR decreases to 30-60 ml/minute, risks of developing CVD over the next 5-10 years doubles.
• When GFR worsens (to < 30 ml/minute), risk of CVD over the next 5-10 years increases four-fold.

Risk Factors for Decreased Kidney Function

• High blood pressure.
• Higher normal-range levels of albuminuria.
• Severe diabetes (longer duration, harder to control, higher blood sugar).

Risk in American Indians

The Strong Heart Study has shown that albuminuria and decreased GFR are common in American Indians and most often related to diabetes, hypertension, and other CVD risk factors, including smoking.

Remember, better control of diabetes and hypertension, and quitting smoking may prevent kidney disease or lower the risk of complications and death. Talk to your doctor about medicines that might help protect your kidneys!