

# 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.



## Arizona

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The Strong Heart Study  
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## Dakotas

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## Oklahoma

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

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# Physical Activity And You



**RESEARCH RESULTS AND  
INFORMATION FROM:  
STRONG HEART  
STUDY**



# Physical Activity and You

## Physical activity promotes better health

Physical activity is an important way to reduce risk factors for heart disease, diabetes, high blood pressure and kidney disease.

## What we did

At the start of the Strong Heart Study, we asked people about the leisure time and work-related physical activities they did. These included leisure activities like walking, jogging and gardening and work activities like cleaning, heavy lifting or plumbing and electrical work. The information we collected was used later to help analyze some of our study results.

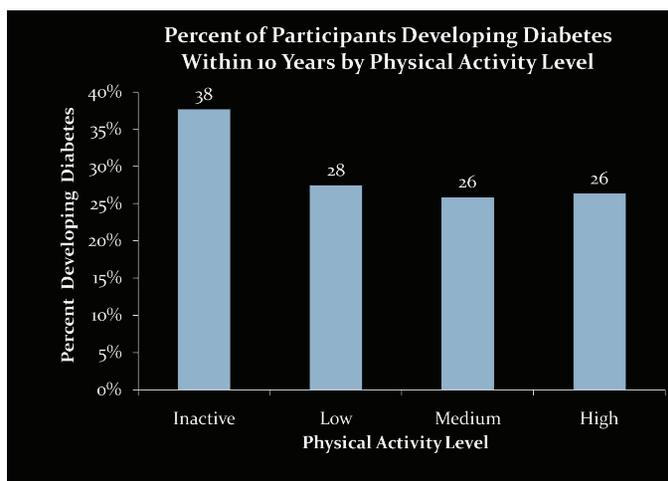


We had 1651 people join the study between 1989 and 1991 who did not have diabetes or heart disease. Overall, the men were more active than the women. People who had higher levels of activity were younger, had less body fat and smaller waist sizes than people who were less active. They also had lower levels of sugar and insulin in their blood. This means they were less

at-risk for diabetes than the people who were not as active.

## 10 years later

Over the next 10 years, 454 of the people in the study developed diabetes. We found that 38 percent of the people who were inactive developed diabetes. But just 28 percent of the participants who had low activity levels and 26 percent of those with moderate or high activity levels developed diabetes.



Based on these results, physical activity appears to help prevent diabetes, which is one of the major causes of heart disease. The study results show that it improves blood pressure and lowers blood fat levels. It helps control weight and can help prevent diabetes.

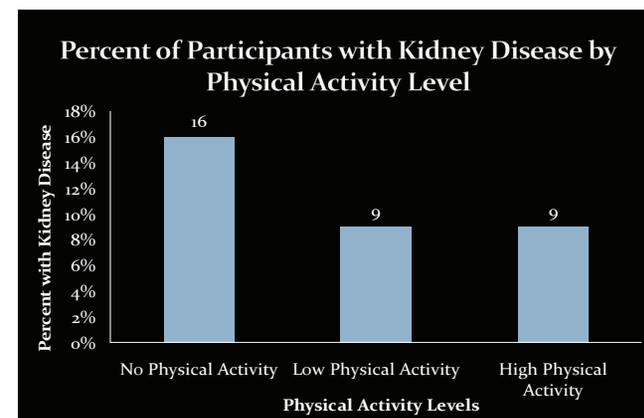
We also showed that Strong Heart Study participants who were physically active had higher levels of “good” HDL cholesterol. People with high HDL levels have lower risks of developing heart disease.

## Physical activity and kidney disease

Diabetes and high blood pressure are the leading causes of kidney disease. Since physical activity can help prevent diabetes and lower blood pressure, it also may reduce the risk of kidney disease. Physical activity also can help people with diabetes better manage blood sugar levels, which lowers their risk of kidney disease.

We found that people who were not active had greater risk of developing kidney disease.

We also found that physical activity protected against rapid loss of kidney function among people who did develop kidney disease. People who were inactive had much greater risk of quickly losing kidney function.



**Remember, staying active will reduce your chances of having heart disease, diabetes and kidney disease!**

