Cardiovascular disease is the number one cause of death, killing more than 600,000 Americans each year.

According to the American Heart Association, more than five million Americans are diagnosed with heart valve disease each year.

Heart valve disease can occur in any single valve or a combination of the four valves, but diseases of the aortic and mitral valves are the most common, affecting more than five percent of the population.

While up to 1.5 million people in the U.S. suffer from AS, approximately 500,000 within this group of patients suffer from severe AS. An estimated 250,000 patients with severe AS are symptomatic.

An echocardiogram (echo) is the primary imaging test used to diagnose severe AS.

Without an aortic valve replacement (AVR), 50 percent of patients will not survive more than an average of two years after the onset of symptoms.

The predicted survival of inoperable patients with severe AS who are treated with standard non-surgical therapy is lower than with certain metastatic cancers.

Studies show that severe AS is undertreated. At many hospitals, more than 50 percent of patients that receive an echo and show the presence of the disease are not referred to a surgeon to be evaluated for an AVR. The absence of chest pain symptoms and overestimating risks associated with the AVR procedure have been identified as some of the reasons lack of patient referrals occur.

An estimated 85,000 AVR procedures are performed every year in the U.S.