

## Aortic Valve Disorders

### Aortic Stenosis (AS)

Aortic stenosis is narrowing of the aortic valve. It may be congenital or acquired. If AS is present at birth (congenital), it can be severe, requiring surgical intervention early in life. Acquired AS is usually caused by calcification, sclerosis, and degeneration of the aging valve. It is often associated with atherosclerosis of the arteries, including the coronary arteries. A common congenital heart abnormality is the bicuspid aortic valve (having two valve cusps instead of the normal three). People born with this valve anomaly usually don't have stenosis in youth, but can slowly progress to AS over time. Rheumatic fever

and endocarditis may cause AS, but these are much less common. AS produces a systolic murmur, which is transmitted to the carotid arteries in the neck. The main symptoms are shortness of breath (dyspnea), chest pain (angina), fainting (syncope) upon exertion, and congestive heart failure (CHF). Because only severe disease causes symptoms, individuals who are symptomatic are not insurable. Severe disease requires valve replacement.

In underwriting, AS is classified as minimal (peak gradient  $\leq 15$ mmHg), mild (valve opening  $> 1.5$  cm<sup>2</sup> and peak gradient  $\leq 35$ mmHg), moderate (valve opening 1.0 - 1.5 cm<sup>2</sup> and peak gradient  $\leq 50$ mmHg), or severe (valve opening  $< 1.0$  cm<sup>2</sup>).

### Aortic Insufficiency (AI)

Aortic insufficiency is the failure of the aortic valve to close properly, thus allowing the flow of blood backward into the left ventricle. Two common causes of AI are progressive degeneration of the congenitally bicuspid valve and progressive degeneration of the aging valve from calcification and sclerosis. As with AS, endocarditis (infection of the heart valve) and rheumatic fever are less common causes of AI. AI may exist for many years without producing symptoms. Eventually, palpitations, shortness of breath, chest pain, and congestive heart failure develop. It produces a diastolic murmur, which is widely transmitted over the chest. Aortic insufficiency (AI) is also referred to as aortic regurgitation (AR). Most severely regurgitant valves require replacement. Sometimes, repair is possible.

If your client has an Aortic Valve Disorder, please answer the following:

**1. How long has this abnormality been present? (years)**

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**2. Please check the type(s) of aortic valve disorder present:**

Aortic stenosis \_\_\_\_\_

Aortic sclerosis \_\_\_\_\_

Aortic insufficiency \_\_\_\_\_

**3. Have any of the following occurred?**

Chest pain                      Yes    No

Palpitations                    Yes    No

Trouble breathing Yes No  
Dizziness, fainting Yes No  
Heart failure Yes No

**4. Is there a history of any other heart disease in addition to the aortic valve disorder (problems with other valves, coronary artery disease, etc.)? If yes, please give details**

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**5. Have additional studies been completed? (check all that apply)**

Echocardiogram \_\_\_\_\_ (date)

Cardiac catheterization \_\_\_\_\_ (date)

None \_\_\_\_\_

**6. Is your client on any medications? If yes, please give details**

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**7. Has your client smoked cigarettes or any other form of tobacco in the last 5 years? If yes, please give details** \_\_\_\_\_