

This valve is normally open during systole allowing blood to flow from the left ventricle to the aorta and closes during diastole to prevent backflow of blood to the left ventricle. Narrowing of the lumen and increased resistance to flow through the stenotic aortic valve causes a systolic heart murmur.

## Ejection Murmur

### Ejection-seat

An ejection murmur is defined as a systolic murmur that ends before the second heart sound produced by the ejection of blood from the heart into the aorta or pulmonary artery.

## Ejection Click

### Ejecting with Clicker

The crescendo-decrescendo systolic murmur typically follows a sharp ejection click best heard at the second intercostal space to the right of the sternum and radiates to the carotids and apex. This ejection click is caused by the impact of the blood from the left ventricle against the partially fused aortic valve leaflets.

## Radiates to Carotids and Apex

### Radiator with Carrot and Ape

This murmur classically radiates to the carotids and apex, which can help distinguish it from other heart murmurs.

## Pulsus Parvus et Tardus

### Pulse Parfait Tar-bus

On physical exam, the patient may demonstrate pulsus parvus et tardus, which is a weak and late pulse on palpation relative to its usual character typically observed in the carotids.

## Syncope

### Sink-of-peas fainting

Syncope is defined as a transient loss of consciousness and tone with rapid onset, short duration and spontaneous recovery. It is usually caused by global cerebral hypoperfusion. Syncope from aortic stenosis typically occurs during exertion and is an indication for aortic valve replacement.

## Helmet Cells

### Helmet cell

Helmet cells are fragmented red blood cells that can be caused by aortic stenosis due to mechanical damage of red blood cells as they pass through the calcified valves. Helmet cells are also known as schistocytes.