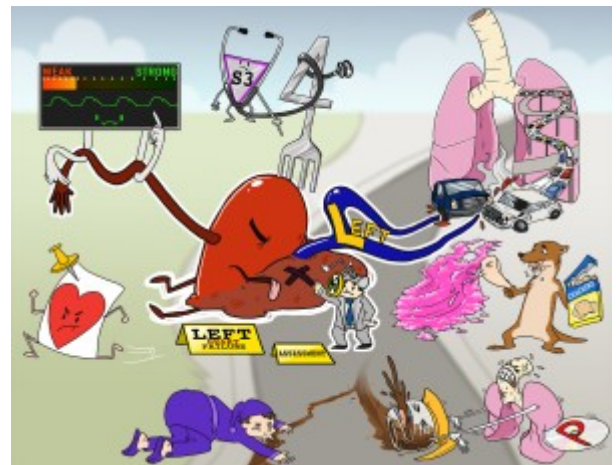


## Left Heart Failure Assessment

Left-sided heart failure is the most common form of heart failure and occurs as a result of left ventricle dysfunction. Hypertension and coronary artery disease serve as primary risk factors, however factors such as advanced age, obesity, tobacco use, hyperlipidemia, and diabetes can also contribute.



PLAY PICMONIC

### Pulmonary Assessment

#### Pulmonary Congestion

##### [Lungs with Congested-traffic](#)

Left ventricular dysfunction prevents normal, forward blood flow from occurring and thus, the blood backs up into the left atrium and pulmonary veins. This increase in pulmonary pressure results in fluid leakage from the pulmonary capillary bed into the interstitium and alveoli causing pulmonary congestion.

#### Pink Frothy Sputum

##### [Pink Froth Spit-thumb](#)

Advanced pulmonary edema can lead to the development of pink frothy sputum.

#### Wheezing or Crackles

##### [Weasel with Crackers](#)

Crackles or wheezing, signifying the accumulation of fluid in the lungs, may be heard upon auscultation.

#### Dyspnea with Exertion

##### [Disc-P-lungs with Exertion](#)

Dyspnea with exertion is feeling short of breath when performing an activity, and can eventually affect daily tasks. It is caused by increased pulmonary pressures secondary to interstitial and alveolar edema. Paroxysmal nocturnal dyspnea (PND) can also occur, which is feeling short of breath after having laid down for several hours. It is caused by the reabsorption of fluid from dependent body areas back into the venous system.

#### Cough

##### [Coughing Coffee-pot](#)

A cough may be present and usually begins as a dry, nonproductive cough, especially when lying down. It is not relieved by position change or over-the-counter cough medicine.

### Systemic Assessment

#### Fatigue

##### [Sleepy-guy](#)

Fatigue, along with weakness or dizziness, is one of the earliest symptoms of heart failure. It is caused as a result of decreased cardiac output, impaired perfusion to vital organs, and decreased oxygenation to tissues. Energy management should be implemented when providing care, which includes organizing care to allow for rest periods throughout the day.

#### Tachycardia

##### [Tac-heart-card](#)

Tachycardia is an early symptom of heart failure and occurs as a result of the body attempting to compensate for a failing ventricle. The sympathetic nervous system is activated causing the heart rate to increase as a result of reduced cardiac output. The patient may also experience palpitations or angina.

### **Weak Peripheral Pulse**

#### [Taking Pulse from Weak Arm](#)

A weak or thready peripheral pulse may be noted. Additionally, pulsus alternans (alternating weak and strong pulses) can occur.

### **S3, S4 Heart Sounds**

#### [Triangular S3-stethoscope with \(4\) Fork](#)

S3 and S4 are both sounds heard from ventricular filling. S3 is related to an increase in filling pressure and occurs in early diastole. S3 may indicate heart failure, mitral regurgitation, or dilated cardiomyopathy, but may also be a normal heart sound in those less than 40 years old. S4 is related to a noncompliant left ventricle and occurs in late diastole. S4 may indicate hypertrophic cardiomyopathy.