

## FACT SHEET: Heart Failure

### Definition

Chronic heart failure occurs when the heart is unable to pump enough blood to sustain adequate circulation in the body's tissues. The earliest sign of heart failure is a decrease in blood output from the left ventricle. In many cases, this decrease in pumping output is accompanied by irregular heart beats, or *arrhythmias*. These can negatively affect the heart's ability to pump blood and are potentially lethal. However, while heart failure is a serious condition, it is not always the death sentence that its name suggests. Thousands of heart failure patients live well with this condition.

### Symptoms

The traditional symptoms of heart failure are:

- Fatigue
- Shortness of breath from any type of exertion, including ordinary daily activities such as dressing, bathing or shopping (Dyspnea)
- Swelling, usually of the feet and ankles (Edema)

### Causes

Heart failure is typically a late result of one or more other cardiovascular diseases, including coronary artery disease, hypertension and valvular disease. Restricted blood flow to the heart muscle (coronary artery disease or ischemic heart disease) is thought to account for approximately 70 percent of heart failure cases.

- Numerous other disorders and factors may also contribute to the development of heart failure, including metabolic disturbances, toxins or infections, hypersensitivity reactions, and a number of acquired or genetic diseases.
- Up to 50 percent of patients with advanced heart failure have electrical conduction problems within the heart, such as bundle branch block or ventricular tachycardia (rapid heart beats), which may contribute to worsening of symptoms.
- As treatment has improved for other heart conditions, particularly myocardial infarctions (heart attacks), more patients survive the short-term event only to develop heart failure later.

### Growing Incidence of Heart Failure and its Impact on Society<sup>1,2,3</sup>

Heart failure is estimated to afflict approximately 5 million Americans and this number is expected to double in the next five years.

- Each year, more than 550,000 new cases of heart failure are diagnosed in the United States.
- From 1979-1999, heart failure deaths increased 145 percent, and heart failure is the only major cardiac disorder that is increasing in prevalence.

- In people diagnosed with heart failure, sudden cardiac arrest occurs at 6-9 times the rate of the general population.
- Risk of heart failure increases dramatically with age. Heart failure affects approximately 10 of every 1,000 people over the age of 65.
- About 22 percent of men and 46 percent of women who suffer heart attacks will be disabled by heart failure within six years.
- It has been estimated that heart failure causes or contributes to about 290,000 deaths per year. Once heart failure is diagnosed, prognosis is poor in some cases, especially where little or no treatment is sought: Overall mortality is 10 percent at one year and 50 percent at five years.
- Although nearly five million Americans suffer from heart failure, less than \$30 million is spent on heart failure research each year. In comparison, lung cancer research, which affects about 390,000 Americans, receives \$132 million annually.

#### **Hospitalization and Costs**

- Heart failure is the most costly cardiovascular disease in the United States. The total cost of caring for U.S. heart failure patients is estimated to be about \$40 billion per year and growing rapidly. Estimates for the global population range as high as \$80 billion.
- Heart failure accounts for 5 to 10 percent of all hospital admissions.
- Heart failure accounts for nearly one million hospitalizations annually, resulting in 6.5 million hospital days, with an average cost of \$7,000-\$15,000 per patient per hospitalization and an average stay of 5 to 10 days.
- Heart failure patients take an average of six medications for their conditions, and 15 percent of hospital admissions for heart failure are related to medication non-compliance.
- Heart failure is responsible for more hospitalizations than all forms of cancer combined.

<sup>1</sup> American Heart Association. *2002 Heart and Stroke Statistical Update*. Dallas, Texas: American Heart Association, 2000.

<sup>2</sup> Rich MW. Epidemiology, pathophysiology and etiology of congestive heart failure in older adults. *J Am Geriatr Soc*. 1997;45:968-974.

<sup>3</sup> O'Connell JB. The Economic Burden of Heart Failure. *Clin Cardiol*. 2000; 23(Suppl III) III-6-10.