

Heart Failure in the United States:

- Nearly 6 million people suffer from heart failure (HF) and about half of patients have the reduced ejection fraction form of the condition^{1,2}
- About 870,000 new HF patients are diagnosed each year;¹ these figures are expected to increase as the population ages³
- HF is the most common cause of hospitalization in people over 65;⁴ annually more than 1 million hospitalizations have a primary diagnosis of HF¹ – that's nearly 2 hospitalizations every minute
- HF is associated with a lower 5-year survival rate following hospital discharge than some cancers (e.g., breast cancer in women and bowel cancer in men)⁵
- HF represents a staggering health and economic burden that currently exceeds \$30 billion annually, when accounting for both direct and indirect costs³

Heart failure, or HF, impacts nearly 6 million Americans.¹ HF is a debilitating and life-threatening condition where the heart cannot pump enough blood around the body.⁶

An important measurement in the diagnosis and tracking of heart failure is the ejection fraction, which determines how well the heart is pumping out blood. A normal ejection fraction ranges from 55 to 70%.⁷ About half of people with heart failure have heart failure with reduced ejection fraction (HFrEF).^{2,7}

Causes: HF occurs when the heart's function is reduced. This can happen following a heart attack or other illnesses affecting the heart, or by damage sustained more gradually due to conditions such as high blood pressure or coronary artery disease.^{6,8}

Symptoms: Symptoms of HF can be very debilitating and can include:^{6,8}

- Shortness of breath (dyspnea)
- Swollen limbs due to build up of fluid (edema)
- Fatigue and weakness
- Coughing or wheezing
- Nausea
- Lack of appetite

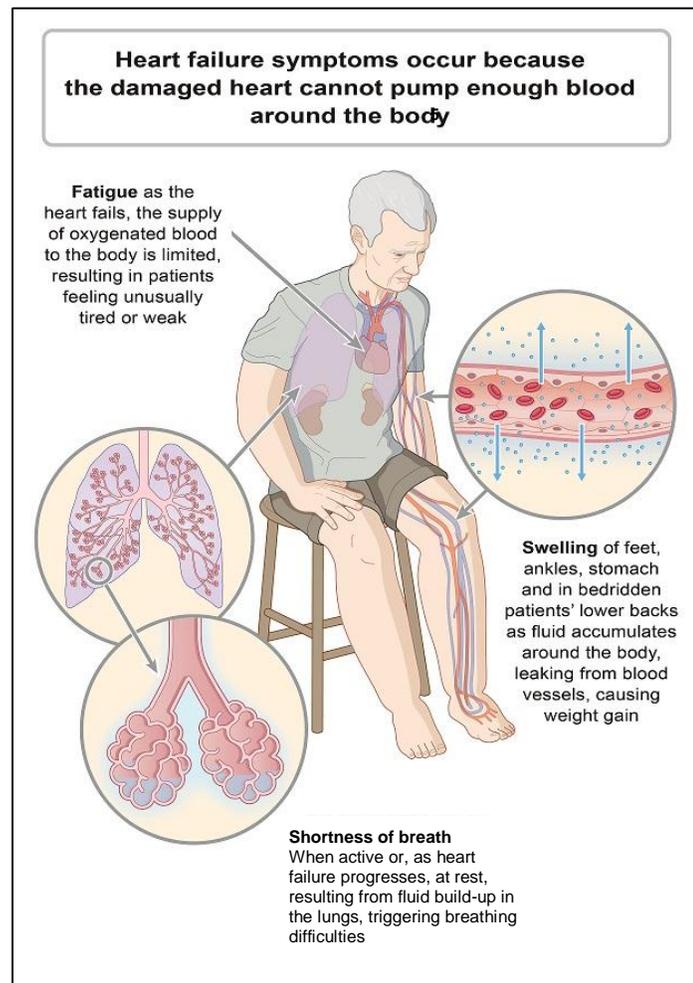
HF may progress and slowly worsen over time. This progressive and persistent condition is known as chronic heart failure (CHF) but can also be punctuated by acute episodes (acute heart failure, AHF) where symptoms worsen rapidly resulting in the need for hospitalization. AHF can also develop in people without a history of CHF.⁸

Risk of developing HF: About 1 in 5 individuals (20%) will develop HF at some point in their lives. The risk of developing HF increases with age.¹

Burden of HF:

- **On society:** HF presents a major and growing health-economic burden that currently exceeds \$30 billion in the United States, which accounts for both direct and indirect costs. Hospitalizations for HF alone cost the U.S. health system more than \$16 billion each year.³
- **On patients:** Studies show that some aspects of quality of life are worse for symptomatic HF patients than for those with certain other chronic conditions.⁹ HF patients need to make lifestyle changes such as diet, exercise and maintaining a healthy weight in order to help manage their HF and its symptoms.¹⁰ Hospital readmissions also significantly impact quality of life; about one-quarter of HF patients are readmitted to the hospital within one month of discharge.¹¹

Treatment of HF: HF is a complex and challenging condition to manage. There is no known cure.¹² There are treatments available to help manage HF, but despite these treatments HF mortality remains very high, with up to 50 percent of patients dying within 5 years of diagnosis.^{13,14}



References:

1. Mozaffarian D, Benjamin EJ, Go AS, et al. Heart disease and stroke statistics – 2015 update: a report from the American Heart Association. *Circulation*. 2015;131:e1-294.
2. Owan TE, Hodge DO, Herges RM, et al. Trends in prevalence and outcome of heart failure with preserved ejection fraction. *N Engl J Med*. 2006;355:251–9.
3. Heindenreich PA, Albert NM, Allen LA, et al. Forecasting the impact of heart failure in the United States: a policy statement from the American Heart Association. *Circ Heart Fail*. 2013;6:606-619.
4. Wier LM, Pfunter A, Maeda J, et al. HCUP Facts and Figures: Statistics on Hospital-based Care in the United States, 2009. Agency for Healthcare Research and Quality. 2011;1-3.
5. Stewart S, MacIntyre K, Hole D, Capewell S, McMurray J, et al. More 'malignant' than cancer? Five-year survival following a first admission for heart failure. *Eur J Heart Fail*. 2001;3:315-322.
6. Fauci A, Longo D. Disorders of the Heart. *Harrison's Principles of Internal Medicine*. 17th ed. New York, NY; McGraw-Hill Book Co; 2008;4:1442-55.
7. Ejection Fraction Heart Failure Measurement. American Heart Association Website. http://www.heart.org/HEARTORG/Conditions/HeartFailure/SymptomsDiagnosisofHeartFailure/Ejection-Fraction-Heart-Failure-Measurement_UCM_306339_Article.jsp. Published March 24, 2015. Accessed April 16, 2015.
8. Mosterd A, Hoes, AW. Clinical epidemiology of heart failure. *Heart*. 2007;93:1137-1146. doi: 10.1136/hrt.2003.025270.
9. Hobbs F, Kenkre J, Roalfe A, Davis R, Hare R, Davies, M. Impact of heart failure and left ventricular systolic dysfunction on quality of life. *Eur Heart J*. 2002;23:1867–1876. doi:10.1053/euhj.2002.3255.
10. Diseases and Conditions Heart Failure: Lifestyle and Home Remedies. Mayo Clinic Website. <http://www.mayoclinic.org/diseases-conditions/heart-failure/basics/lifestyle-home-remedies/con-20029801>. Published January 17, 2015. Accessed March 11, 2015.
11. Bradley EH, Curry L, Horwitz LI, et al. Hospital strategies associated with 30-day readmission rates for patients with heart failure. *Circ Cardiovasc Qual Outcomes*. 2013; 6:444-450.
12. Diseases and Conditions Heart Failure: Treatments and Drugs. Mayo Clinic Website. <http://www.mayoclinic.org/diseases-conditions/heart-failure/basics/treatment/con-20029801>. Published January 17, 2015. Accessed March 11, 2015.
13. Roger VL, Weston SA, Redfield MM, et al. Trends in heart failure incidence and survival community-based population. *JAMA*. 2004;292(3):344-350.
14. Levy D, Kenchaiah S, Larson MG, et al. Long term trends in the incidence and survival with heart failure. *N Engl J Med*. 2002;347(18):1397-1422.