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BIOTRONIK SE & Co. KG
Woermannkehre 1
12359 Berlin
Tel +49 (0) 30 68905-1414
Fax +49 (0) 30 68905-961414
www.biotronik.com

Treating Heart Failure

Heart failure occurs when the heart cannot pump enough blood to meet the body's demands. It is usually caused by the lower heart chambers' (ventricles) inability to contract or relax properly. Over time, heart failure causes fluids to build up (congest) in the body, which can lead to shortness of breath, fatigue, swelling and heart rhythm abnormalities. Heart failure is a serious condition, but it does not mean that the heart has stopped working.

How common is heart failure?

Heart failure is very common, affecting 26 million worldwide,¹ or one to two percent of the adult population in developed countries. The figure rises sharply with age. Ten to 20 percent of those between 70 and 80 years-old have heart failure.²

What health issues do patients face?

Heart failure patients often suffer from coronary heart disease, myocardial infarction or other diseases of the heart muscle. They also frequently have other chronic conditions, such as diabetes, kidney dysfunction, or sleeping disorders. Half of those with serious heart failure also have atrial fibrillation⁴ – the most common abnormal heart rhythm – which is increasingly common with age.⁵

Treatment options

Heart failure is typically treated with medication and lifestyle changes. Cardiac resynchronization therapy (CRT) can also treat heart failure patients who have an additional electrical disorder resulting in an abnormal contraction of the ventricles.

CRT helps the ventricles beat synchronously. By improving blood flow, CRT can reduce heart failure symptoms, improving patient quality of life and reducing mortality.⁶

Like a pacemaker or implantable cardioverter defibrillator (ICD), CRT devices are implanted in patients' chests and connected to the heart with electrodes, called leads. CRT pacemakers and ICDs have a third lead that connects the device to the left ventricle, which pumps blood through the body. Heart failure pacemakers (CRT-Ps) allow the heart to beat synchronously; heart failure ICDs (CRT-Ds) also protect the heart from life-threatening tachyarrhythmias, where the heart beats too quickly. BIOTRONIK devices also come with ProMRI[®] technology, allowing patients to undergo MRI scans under certain conditions. They are also equipped with BIOTRONIK Home Monitoring[®] technology, so physicians can monitor their patients remotely anytime, anywhere.

References:

¹ Ambrosy PA et al. *JACC*. 2014(63).

² CDC Heart Failure Fact Sheet, 2016.

³ Within 51 countries representing a population of 900 million. Dickstein K et al. *Eur Heart J*. 2008, 29.

⁴ Santhanakrishnan R et al. *Circulation*. 2016 Feb 2; 133(5):484-92.

⁵ Anter E et al. *Circulation*. 2009, 119.

⁶ Ponikowski P et al. *European Journal of Heart Failure*. 2016 Aug; 18(8):891-975.