

JOINT EVENT ON  
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### What does it mean to have diastolic left ventricular dysfunction?

Management of congestive Heart Failure (HF) patients depends on the degree of Left Ventricle (LV) dysfunction by means Ejection Fraction (EF) which is systolic/contractile index. However, prognosis of HF patients is essentially identically poor regardless of LV systolic dysfunction. Current guidelines divided HF with reduced LVEF (<40%) and preserved LVEF ( $\geq 50\%$ ). HF patients with preserved LVEF (HFpEF) are multifactorial group. Therefore, there is no single diagnostic test for HFpEF and either uniformed medical therapy. However, Diastolic Dysfunction (DD) played a pivotal role to their disease and has been well documented in literature over the last half century. Echocardiogram and in particular Doppler technique has been used to defined DD by the assessment of LV filling indices, pulmonary hypertension, as well as measurements of left atrial size and LV hypertrophy. However, a number of complex parameters needs to be assess and none of them is very accurate. Above all, there is no consensus around the world with one excepted definition of DD in HF patients. The DD might be present in all HF patients regardless of the degree of LVEF systolic dysfunction and often is not primary related to myopathy dysfunction (cardiomyopathy). The DD could be either ischemic (related to large pericardial vessel and/or micro-vascular often seen in diabetic patients) or non-ischemic. The variety of other conditions including intra-cardiac valvular dysfunction, pericardial disease, respiratory failure (e.g. obstructive sleep apnea), peripheral muscle disease and renal failure are contributing to DD. The DD in all HF patients with HFpEF and HFrEF, could be exaggerated by lack of dynamic changes in either electrical status (heart rate variability, arrhythmia), afterload status (e.g. hypertension) and/or preload status. In contrast, to currently used EF which is essentially a relation between LV stroke to volume. We are proposed simplify definition of DD which accounts hemodynamically LV status based on relation between stroke volume and filling indices. This is could be used for studies to define a “true” patient DD regardless of the degree LV dysfunction which could help target specific therapies.

### Biography

Przemek Palka is a Director of the Queensland Cardiovascular Group, and a Senior Staff Specialist at the Mater Hospital in Brisbane Australia. He is a general cardiologist with special interests in echocardiography and heart failure patients with cardiomyopathies. Przemek Palka is internationally recognized for his research in diastolic heart failure patients. He graduated and conducted his initial training in Wroclaw, Poland subsequently moved to UK and Australia. He was awarded a Research Fellowship of the European Society of Cardiology at the University of Edinburgh, UK. He was pioneer in developing a new echocardiographic technique, Doppler Tissue Imaging.

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