

UVSQ

université PARIS-SA

03. IMPROVED LEFT VENTRICULAR FILLING

The left ventricle is directly filled by the pulmonary venous return. The pulmonary circulation thus represents the preload reserve of the left ventricle. On insufflation, the blood is expelled from the pulmonary capillaries to the left atrium and left ventricle. This phenomenon is responsible for the dUp which can be observed on a blood pressure curve. It is more marked when the pulmonary circulation is correctly filled by prior right ventricular ejection and when allowed by the elastance of the atrium and left ventricle. In echocardiography this outflow effect is visualized by a significant increase in the size of the left atrium on insufflation, as well as by an increase in Doppler flow in the pulmonary veins.

Film no. 16 : TEE – View past the left superior pulmonary vein

Doppler recording of pulmonary venous flow.

At each inspiration, there is an increase in filling of the left atrium, secondary to the flow of blood from the pulmonary capillaries.

By improving left ventricular filling, it is responsible for an increase in ventricular ejection.

Film no. 2 TEE - Transgastric view at 90° past the outflow tract of the left ventricle (LV).

Ao: aorta.

At each inspiration, there is an increase in left ventricular ejection.