The Pulmonary Circulation in Left Heart Failure  
- Vascular Adaptation and Remodeling

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Acute left heart failure results in cardiogenic lung edema that is characterized by endothelial barrier failure and active alveolar fluid secretion. Chronic heart failure, in contrast, results in vascular adaptations that are designed to minimize edema formation, yet inadvertently promote lung vascular remodeling and the development of pulmonary hypertension. Therapeutic strategies for the treatment of this most frequent cause of pulmonary hypertension in Western countries thus have to walk the fine line between preventing excessive remodeling while maintaining the physiological adaptation of the pulmonary circulation to chronic pressure stress.