

Educating parents on its prevention is important.

Pulmonary Edema

Pulmonary edema (PE) is the movement of fluid into the alveoli and interstitium of the lungs caused by extravasation of fluid from the pulmonary vasculature ([Mazor and Green, 2016](#)). There are two main types of PE: cardiogenic and noncardiogenic.

Cardiogenic (hydrostatic, hemodynamic) PE is caused by an increase in pulmonary capillary pressure because of an increase in pulmonary venous pressure. It can be caused by excessive IV fluid administration, left ventricular failure, heart valve disorder (aortic regurgitation, aortic stenosis, mitral regurgitation), severe hypertension, renal artery stenosis, or severe renal disease ([Pinto and Kociol, 2014](#)).

Noncardiogenic PE is caused by various conditions that result in increased pulmonary capillary permeability. Some subtypes of noncardiogenic PE include permeability PE (caused by acute respiratory distress syndrome [ARDS] or acute lung injury [ALI]), high altitude PE (caused by rapid ascension to heights above 12,000 feet), or neurogenic PE (after CNS insult such as seizures, head injury, or cerebral hemorrhage). Some less common forms of PE are reperfusion PE (after removal of thromboemboli from the lung or a lung transplant), reexpansion PE (caused by rapid reexpansion of a collapsed lung), or PE that results from opiate overdose (methadone or heroin), salicylate toxicity (chronic), aspiration (FB inhalation), inhalation injuries, near drowning, pulmonary embolism, viral infections, or pulmonary veno-occlusive disease. Other causes include aspiration, traumatic injury, organ dysfunction caused by sepsis, multiorgan failure, alcoholism or substance abuse, pregnancy (eclampsia), chronic renal impairment, malnutrition, hypertension, or a blood transfusion (transfusion-related ALI).

Pathophysiology

Fluid flows from the pulmonary vasculature into the alveolar interstitial space and then returns to the systemic circulation in a normal lung. Movement of this fluid is controlled by the net difference between hydrostatic and osmotic pressures and the