

Chapter 22

Post-pneumonectomy



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Radiographic presentation of lung field acutely after pneumonectomy?	Midline trachea Air and fluid in post-pneumonectomy space Slight congestion in remaining lung
In most cases, half of the pneumonectomy space is filled with fluid in approximately how many days postoperatively?	4–5 days
Radiographic presentation of lung field after total obliteration of the post-pneumonectomy space (usually within weeks to months)?	“White-out” of affected side due to fluid filling remaining space where lung previously filled space Progressive mediastinal shift <i>toward</i> affected side Progressive herniation of contralateral lung to affected side

(continued)

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What other radiographic signs differentiate post-pneumonectomy from other causes of unilateral radiographic “white-out” of the hemithorax?	Tracheal deviation <i>toward</i> affected side due to volume loss Hemidiaphragmatic elevation of affected side Compensatory hyperinflation of remaining lung Decreased space between ribs due to reduced hemithorax size
Describe compensatory hyperinflation.	The remaining lung hyperinflates to compensate for volume loss in the affected hemithorax.
Other causes of radiographic hemithorax white-out with tracheal deviation <i>toward</i> affected side?	Total lung collapse Pulmonary agenesis Pulmonary hypoplasia
What radiographic changes are seen with time after a pneumonectomy?	Initially the affected hemithorax is filled with air, fluid, mediastinum, and contralateral lung. With time, the ratio of fluid to air should increase, and volume should gradually decrease within the affected hemithorax.
What complication(s) should be considered if the ratio of fluid to air decreases?	Bronchopleural fistula
What complication(s) should be considered if the volume of the affected hemithorax increases?	Bronchopleural fistula Empyema Hemorrhage

Is a bronchopleural fistula more likely to occur after a right or left pneumonectomy?

Right-sided pneumonectomy.
Likely due to shorter length of the bronchial stump and increased susceptibility to ischemic injury due to blood being supplied from a single bronchial artery

What rib(s) is/are usually absent in cases post-pneumonectomy?

The fourth and/or fifth rib(s)