

HD16 – Lung Development

Recommended Reading:

Sadler TW. Langman's Medical Embryology, 8th edition, pp 260-9, 201-5

Additional sources:

1. DiFiore JW, Wilson JM. Lung development. Seminars in Pediatric Surgery 3:221-32, 1994
2. Harding R, Hooper SB. Regulation of lung expansion and lung growth before birth. J. Appl. Physiol. 81:209-24, 1996
3. Gregory GA, Kitterman JA, Phibbs RH, Tooley WH, Hamilton WK. Treatment of the idiopathic respiratory distress syndrome with continuous positive airway pressure. N. Eng. J. Med. 284:1333-40, 1971
This paper describes how a simple clinical observation led to a tremendous breakthrough in the treatment of neonatal respiratory distress syndrome.
4. Whitsett JA, Weaver TE. Hydrophobic surfactant proteins in lung function and disease. N. Eng. J Med 347:2141-48, 2002

Learning Objectives:

1. Understand the growth and functional development of the respiratory system
2. Identify the stages of lung development and the major events of each stage
3. Understand the physical and biochemical requirements for alveolar development and function
4. Identify the developmental causes of neonatal respiratory failure, tracheoesophageal fistula and diaphragmatic hernia