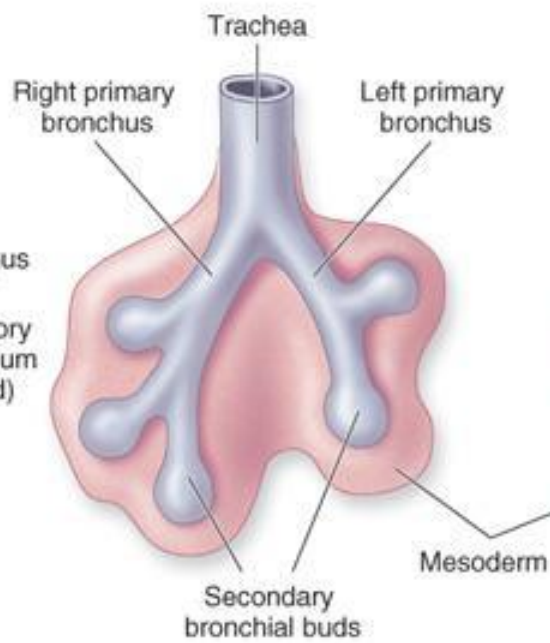
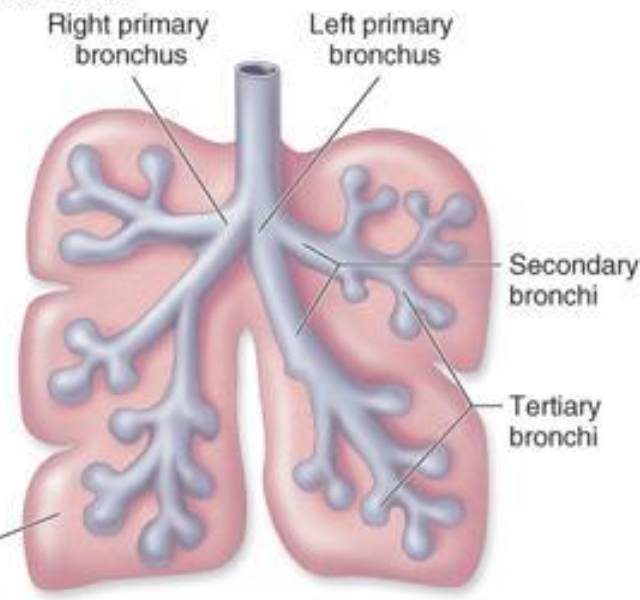


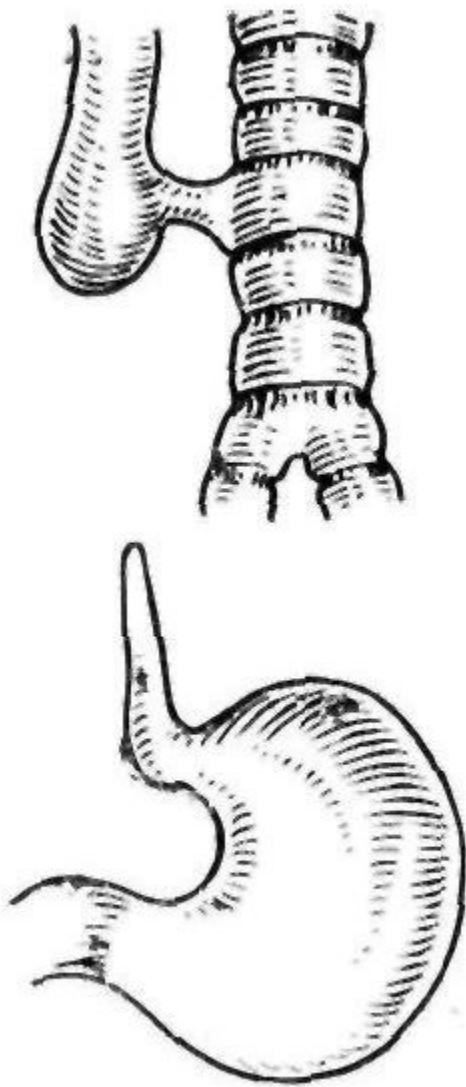
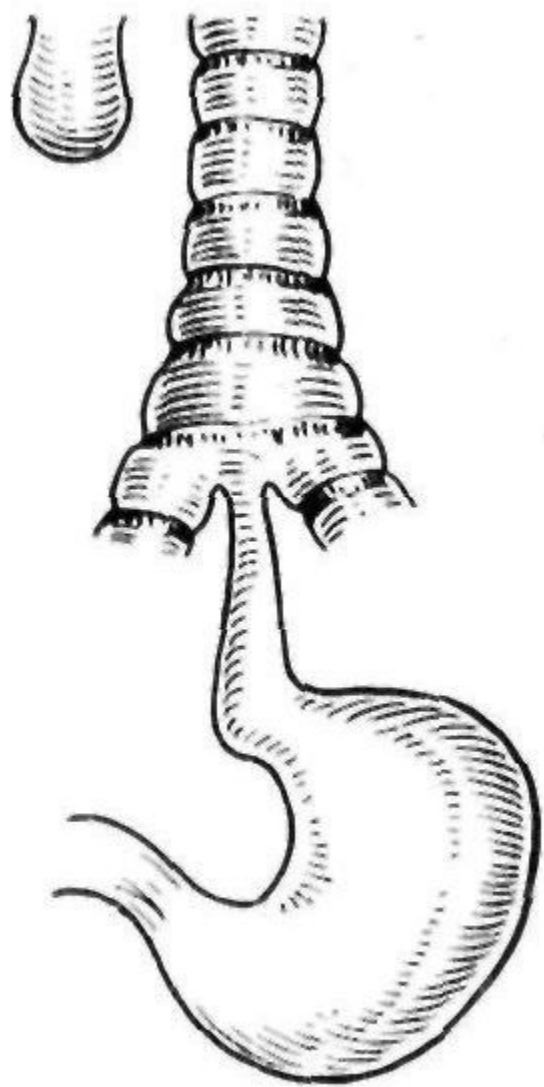
**(a) Week 4:** Respiratory diverticulum and primary bronchial buds form

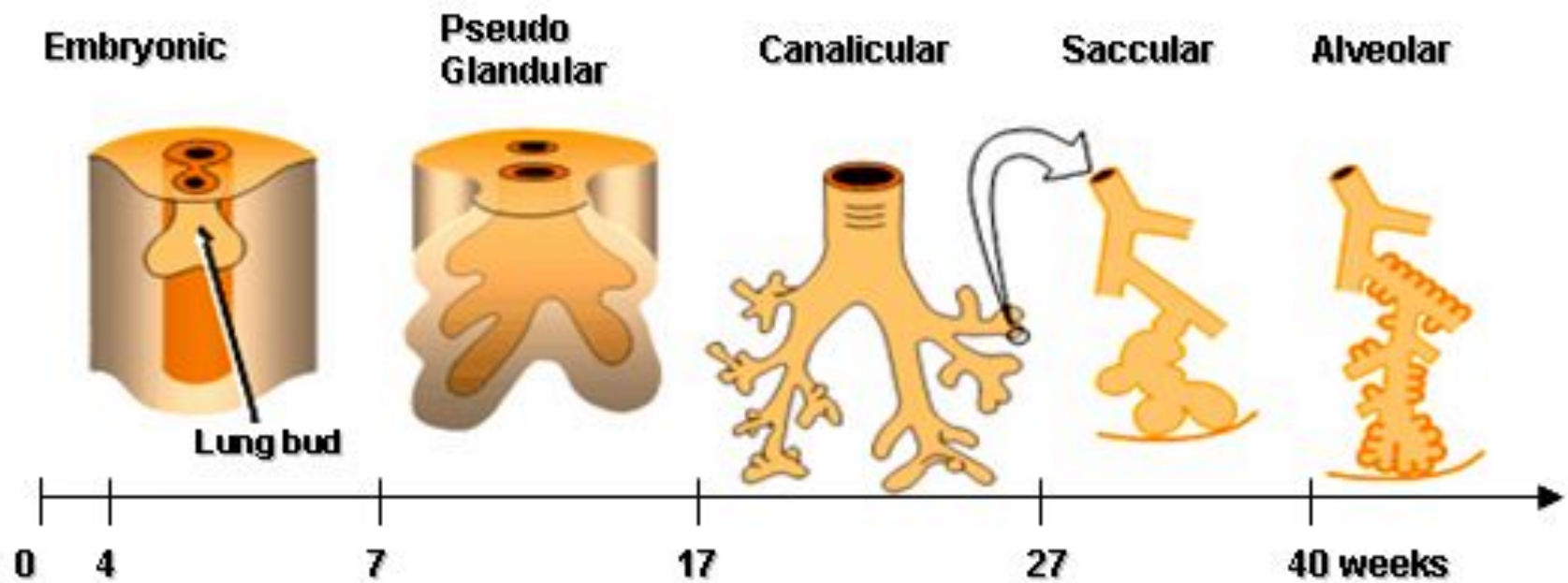


**(b) Week 5:** Secondary bronchial buds form



**(c) Week 6:** Tertiary bronchi form

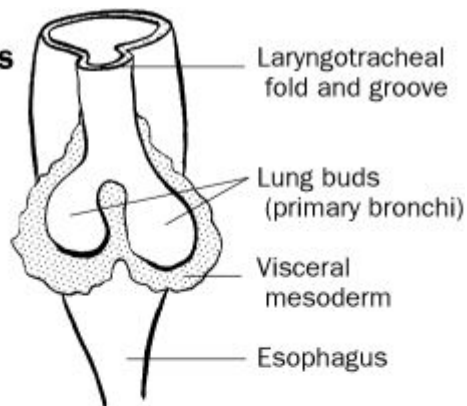




The stages of pulmonary development

Органы дыхания					
	1. Жабры рыб	2. Жабры головастика и мешковидные легкие амфибий	3. Ячеистые легкие рептилий мешками птиц	4. Губчатые легкие с воздушными	5. Губчатые легкие млекопитающих

## 5 Weeks



## 6 Weeks

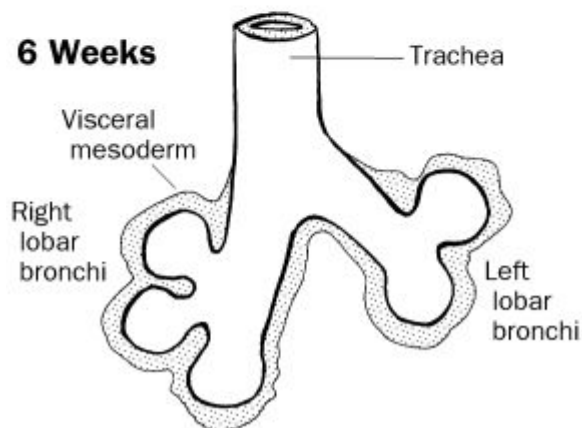


Table 14 - Stages of Lung Development

Time period	Stage	Notes
Weeks 5 – 17	Pseudoglandular	Developing lungs resemble an exocrine gland. Respiration is not possible. <b>Fetuses born during this period cannot survive.</b>
Weeks 16 – 25	Canalicular	Terminal bronchioles divide and primitive alveolar sacs ( <b>terminal sacs</b> ) develop. Some respiration may be possible towards the end of this stage. <b>Fetuses born towards the end of this period (weeks 22-25) can survive if given intensive care</b> but often die anyway.
Week 24 – birth	Terminal sac	Many more alveoli develop, and the epithelium lining the terminal sacs become thin enough to allow respiration. Type I and Type II pneumocytes develop. Type II pneumocytes begin producing <b>pulmonary surfactant</b> , which counteracts surface tension and facilitates expansion of the terminal sacs at birth. <b>Fetuses born after 24 weeks may survive</b> , and those born after 32 weeks have a good chance of survival.
Birth – year 8	Alveolar	Respiratory bronchioles, terminals, alveolar ducts continue to increase in number

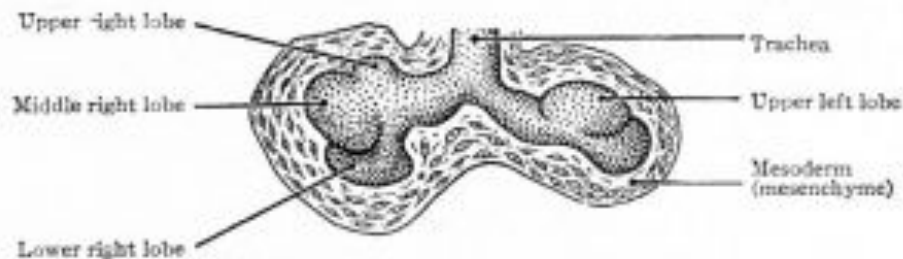


FIG. 287.—Anlage of lungs of a human embryo of 4.3 mm. *His.*



FIG. 288.—Anlage of lungs of a human embryo of 8.5 mm. *His.*

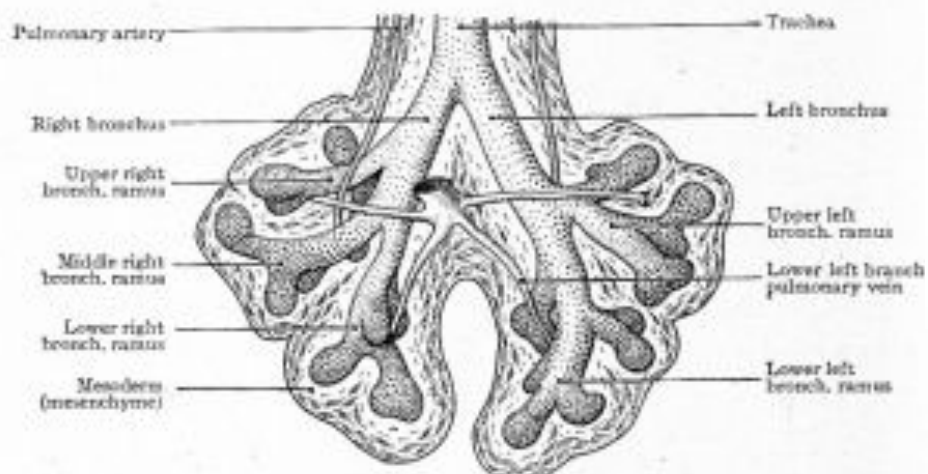
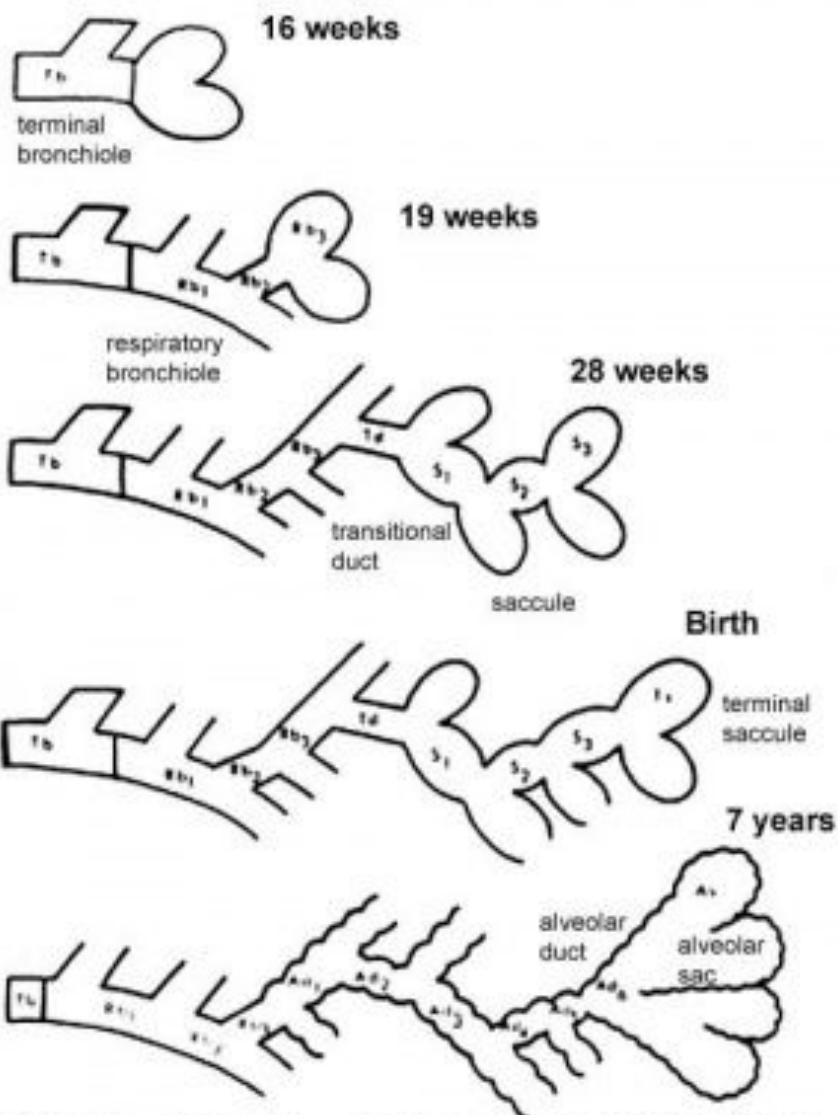


FIG. 289.—Anlage of lungs of a human embryo of 10.5 mm. *His.*



Modified from Dilly SA. Thorax. 1984 Oct;39(10):733-42. PMID: 6495241