

Understanding premature **infant lungs**

If your baby was born early, you already know how fragile preemie lungs can be.

Preterm lungs



24–35 Weeks
Gestational Age

Term lungs



36 Weeks Gestational
Age to 3 Years of Age

Adapted from Moore and Persaud 2008.¹

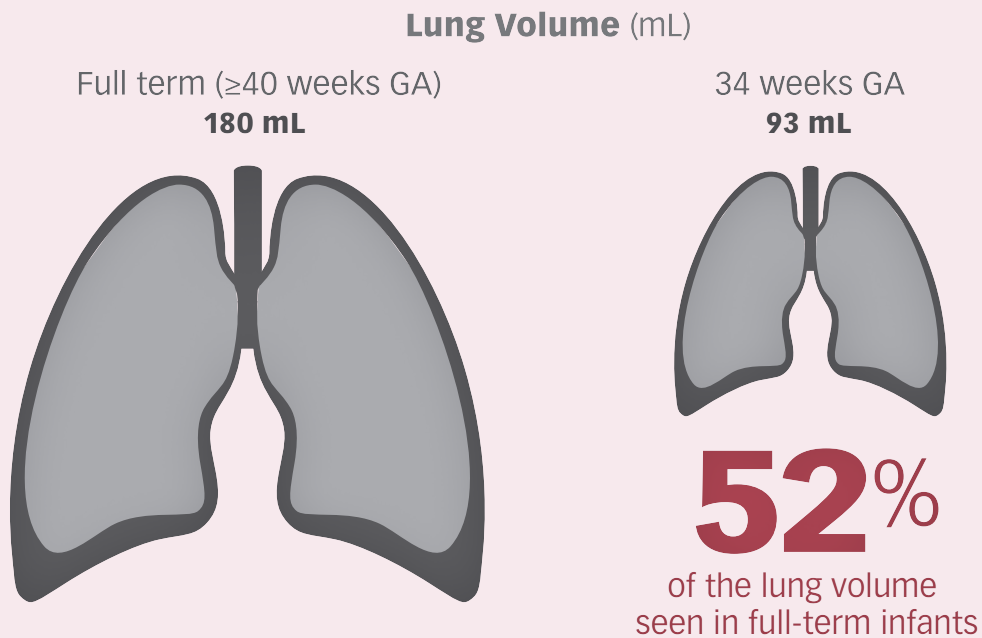
Babies born early have lungs that are smaller and less developed at birth than those of full-term babies.



Premature birth interrupts the final stages of normal lung development

Estimates of lung volume at birth²

Alveoli are not uniformly present until 36 weeks gestational age (GA)



- A preemie's airways are smaller and more narrow than a full-term baby's airways
- Babies born early (before the 36th week of pregnancy) have not received the full transfer of maternal antibodies to protect them against severe RSV disease³
- Even as your premature infant starts to look healthy and strong, babies born early are at high risk for severe RSV disease, in part due to underdeveloped lungs
- A lung infection from RSV can cause clogged airways and serious breathing problems that might lead to hospitalization

References: 1. Moore KL, Persaud TVN. The respiratory system. In: *The Developing Human: Clinically Oriented Embryology*. 8th ed. Philadelphia, PA: Saunders; 2008:202–208. 2. Langston C, Kida K, Reed M, Thurlbeck WM. Human lung growth in late gestation and in the neonate. *Am Rev Respir Dis*. 1984;129(4):607–613. 3. Yeung CY, Hobbs JR. Serum-gamma-G-globulin levels in normal premature, post-mature, and “small-for-dates” newborn babies. *Lancet*. 1968;1(7553):1167–1170.