Understanding premature infant lungs

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

Preterm lungs

Term lungs

24–35 Weeks Gestational Age

36 Weeks Gestational Age to 3 Years of Age

Adapted from Moore and Persaud 2008.

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

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<tr>
<th>Lung Volume (mL)</th>
<th>Full term (≥40 weeks GA)</th>
<th>34 weeks GA</th>
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<td>180 mL</td>
<td>93 mL</td>
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52% of the lung volume seen in full-term infants

- 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 disease
- 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