

# 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 2003<sup>1</sup>

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

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# Premature birth interrupts the final stages of normal lung development.



## Lung Volume (mL) at Birth<sup>2</sup>

**FULL-TERM**



**178 mL**

**34 WEEKS' Gestational Age**



**93 mL**

**52%**  
of the lung  
volume seen  
in full-term  
infants

- Premie lung volume is only about half 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.<sup>3</sup>
- 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.
- For babies born early, RSV disease could lead to serious lung infections, like pneumonia and bronchiolitis.

<sup>1</sup> Moore KL, Persaud TVN. *The Developing Human: Clinically Oriented Embryology*. 7th ed. Philadelphia, PA: Saunders; 2003:245-251.

<sup>2</sup> Langston C, Kida K, Reed M, et al. *Am Rev Respir Dis*. 1984;129:607-613.

<sup>3</sup> Yeung CY, Hobbs JR. *Lancet*. 1968;1:1167-1170.

This information is for educational purposes only and is not intended to substitute for professional medical advice. Always consult with a healthcare professional if you have any questions about the health of your child.

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