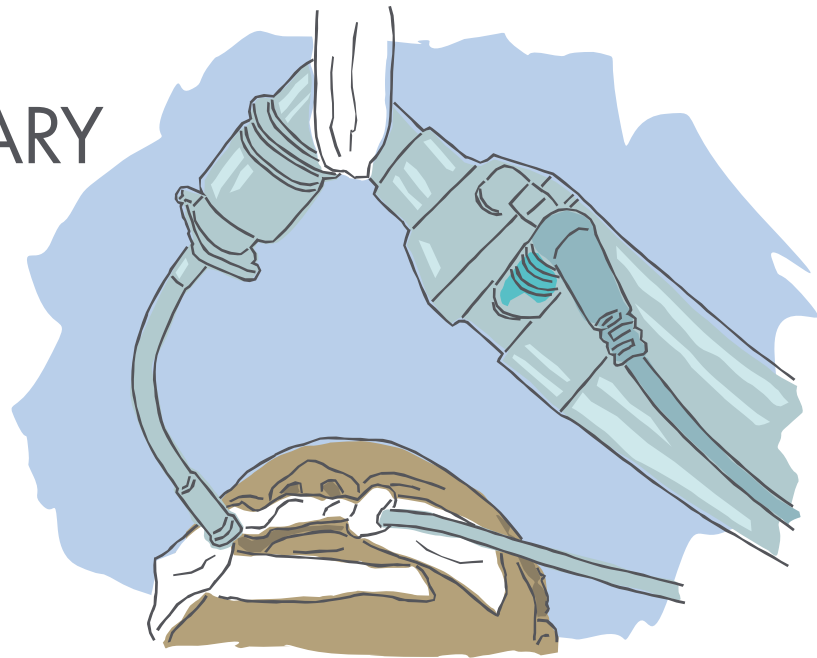


# UNDERSTANDING BRONCHOPULMONARY DYSPLASIA

**Bronchopulmonary dysplasia (BPD) is a serious lung condition mostly affecting low birth weight and premature babies.<sup>1</sup>**



## What causes BPD?

The lungs are among the last organs to fully develop in the womb. When a baby is born extremely early, they miss out on this important development. As a result, they might not be able to breathe on their own and may require respiratory support.<sup>1</sup> There are several types of respiratory support in the neonatal intensive care unit (NICU). These include extra oxygen delivered via a nasal cannula (plastic tube that delivers oxygen into the nose via two small prongs) or a mask, continuous positive airway pressure (CPAP), or mechanical ventilation (breathing tube inserted into the windpipe through the nose or mouth).

The long-term use of these respiratory treatments can irritate and may cause inflammation of the baby's delicate lungs and airways, which can lead to the development of BPD. The longer a baby receives supplemental oxygen or mechanical ventilation, the higher the risk of developing BPD.<sup>1</sup>

Babies that continue to require respiratory support at 36 weeks gestation are diagnosed with BPD.<sup>2</sup>



**Three recent studies have shown that the risk of BPD decreases in premature infants fed a 100% human milk diet (mom's own milk or donor milk combined with Prolacta's 100% human milk-based fortifiers) when compared to infants fed cow milk-based fortifiers or formula.<sup>4,5,6</sup>**

## How is BPD treated?

Treatment for BPD is focused on providing sufficient respiratory and oxygen support until the baby's lungs heal.<sup>1</sup>

Babies with BPD can also be treated with:

- Medications such as bronchodilators to help keep airways open
- Diuretics to reduce excess fluid buildup in the lungs
- Corticosteroids to reduce inflammation within the lungs<sup>3</sup>

## Can BPD be prevented?

Appropriate nutrition is critical in helping lower the baby's risk of developing BPD.

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<sup>1</sup> Learn About Bronchopulmonary Dysplasia. American Lung Association. Accessed March 6, 2020. <https://www.lung.org/lung-health-diseases/lung-disease-lookup/bronchopulmonary-dysplasia/learn-about-bpd> <sup>2</sup> Bronchopulmonary Dysplasia. NIH National Heart, Lung and Blood Institute. Accessed March 2, 2020. <https://www.nhlbi.nih.gov/health-topics/bronchopulmonary-dysplasia> <sup>3</sup> Treating and Managing Bronchopulmonary Dysplasia. American Lung Association. Accessed April 21, 2020. <https://www.lung.org/lung-health-diseases/lung-disease-lookup/bronchopulmonary-dysplasia/treating-and-managing> <sup>4</sup> Delaney Manthe E, Perks PH, Swanson JR. Team-based implementation of an exclusive human milk diet. *Adv Neonatal Care*. 2019;19(6):460-467. doi:10.1097/ANC.0000000000000676 <sup>5</sup> Hair AB, Peluso AM, Hawthorne KM, et al. Beyond necrotizing enterocolitis prevention: improving outcomes with an exclusive human milk-based diet. *Breastfeed Med*. 2016;11(2):70-74. doi:10.1089/bfm.2015.0134. Published correction appears in *Breastfeed Med*. 2017;12(10):663. doi:10.1089/bfm.2015.0134.correx <sup>6</sup> Assad M, Elliott MJ, Abraham JH. Decreased cost and improved feeding tolerance in VLBW infants fed an exclusive human milk diet. *J Perinatol*. 2016;36(3):216-220. doi:10.1038/jp.2015.168