

# HOW PROBIOTICS CAN HELP MY PRETERM INFANT

## INFANCY IS AN IMPORTANT TIME IN DEVELOPING A HEALTHY GUT MICROBIOME

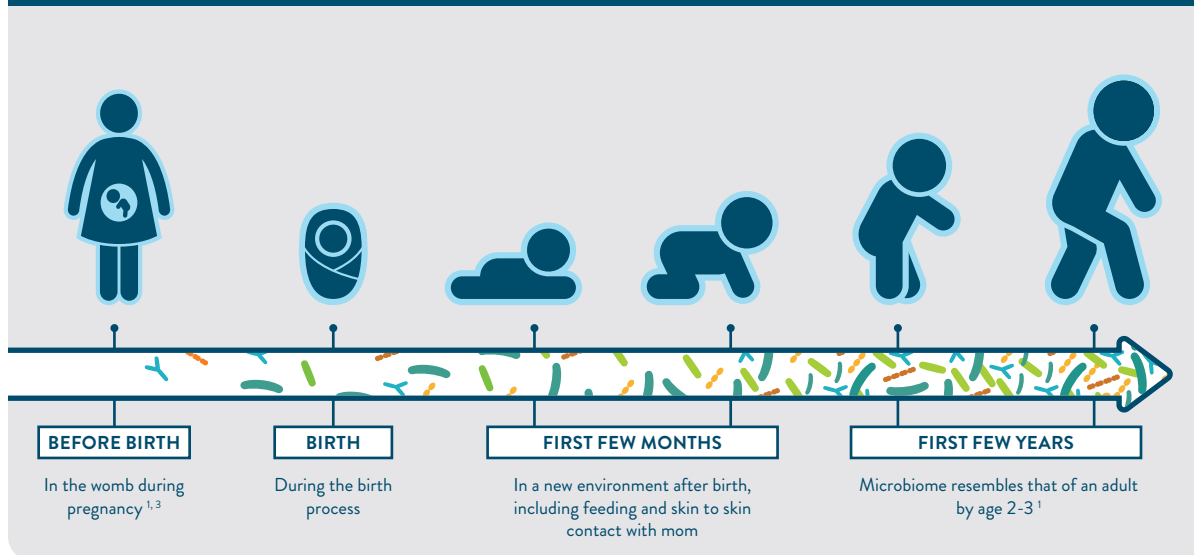


The digestive system, also called the gut, contains trillions of small living organisms including bacteria. This collection of small organisms is called a microbiome.<sup>1</sup>

A healthy gut microbiome requires a favorable balance of beneficial (good) bacteria to harmful (bad) bacteria.<sup>2</sup>

### Microbiome Development Timeline

Each phase adds new bacteria to the microbiome



### The Microbiome Shapes Health

A healthy microbiome contributes to protection against infection and lays the foundation for a lifetime of good health.<sup>2</sup>

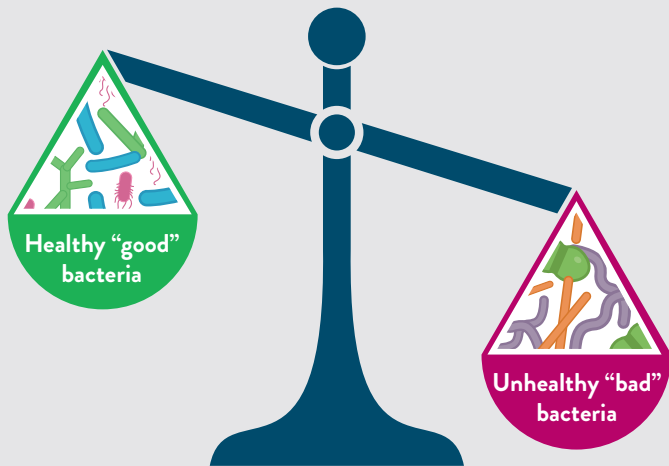
### Preterm Infants May Face Challenges That Impact A Healthy Gut

The following factors can decrease good bacteria in the gut and cause an imbalance<sup>4-7</sup>

- Gut is not fully developed
- Fewer good bacteria at birth than full term infants
- C-section birth
- Timing of first feeding
- How your baby is being fed
- Source of feeding (introduction to non-mother's milk)
- Use of antibiotics and other medications
- Fewer opportunities for skin to skin contact

# AN IMBALANCE OF GUT BACTERIA CAN INCREASE THE RISK FOR INFECTION AND INFLAMMATION

Probiotics increase the number of good bacteria in the gut, promoting a healthy microbiome



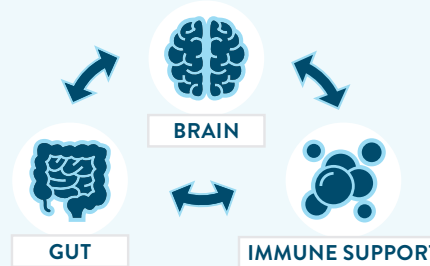
## An immature digestive system

- Decreases ability to take in, digest, and absorb nutrients needed for growth
- Decreases ability to make and utilize vitamins
- Decreases ability to build a strong immune system and fight off diseases
- Increases risk of Necrotizing enterocolitis (NEC)- an uncommon, but serious, inflammation in the intestines of preterm infants



## How do Probiotics work?

Probiotics are live good bacteria that help create a healthy gut which supports the health and development of other body systems. <sup>8</sup>



BODY SYSTEM	IMPACT ON HEALTH
The Brain <sup>9,10</sup>	Sends signals to the brain that help with feeding tolerance
The Immune System <sup>9,10</sup>	Protects against inflammation Defends against bad bacteria Fosters growth and development <sup>11</sup>
The Gut	• Produces vitamins necessary for digestion and bone health • Helps with absorbing, digesting and using nutrients

## Probiotics may be recommended for preterm infants that are:

- born at 32 weeks or younger
- less than 1.5kg (3lbs 5oz) in weight
- on antibiotics

Recent research shows that probiotic products that contain multiple types of healthy bacteria may be more beneficial than products containing a single type. <sup>12</sup> Talk to your NICU staff about your baby's individual needs, including the benefits and risks of using probiotics for your baby

To learn more about the neonatal microbiome, visit: [anhi.org/resources/knowledge-hub](https://anhi.org/resources/knowledge-hub)

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