Probiotics in the Neonatal Intensive Care Unit (NICU)

What are probiotics?
Probiotics are live bacteria found naturally in the body. They play an important role in keeping the digestive system (gut) healthy, by keeping the balance against the bad or harmful bacteria that live there too. We call probiotics the “good” or “healthy” bacteria.
You can also find probiotics in food and supplements. For preterm babies, we give probiotics to help stop harmful bacteria from growing in their gut. This may protect against a disease in the gut called “necrotizing enterocolitis”.

What is necrotizing enterocolitis?
Necrotizing enterocolitis (NEC) is a disease of the gut that sometimes happens in babies. In NEC, tissue in the small or large intestine is injured. The tissue may begin to die off. It causes the intestine to become inflamed, or in rare cases, develop a hole (perforation). Babies born less than 33 weeks and/or weighing less than 1500 grams are at greatest risk for getting NEC.

Why do we use probiotics?
Studies have shown that probiotics can lessen the chances of preterm infants getting NEC.

Who do we give probiotics to in the NICU?
Our team recommends probiotics for babies born less than 33 weeks and/or weigh less than 1500 grams at birth.
We suggest giving these babies a daily dose of probiotics when they start feedings. We usually stop giving the probiotics once the baby reaches 36 weeks.

If you would like us to keep giving probiotics to your baby, or if the doctor has ordered it, we can continue to give it to your baby until discharge from the NICU.

Are there risks of using probiotics?
As probiotics are live bacteria, there is a chance that your baby can develop an infection from the bacteria. However, studies showed that babies who received probiotics did not get more infections than babies who did not receive probiotics. Overall, the studies show that probiotics in preterm babies are safe to use.

Which probiotic will you give my baby?
We will use a probiotic called “FloraBABY”, made by Renew Life (Health Canada Natural Product Number (NPN) 80061524). At Humber River Hospital, our Pharmacy and Therapeutics Committee and the NICU team have approved it for use in the NICU.
Each gram of FloraBABY contains 4 billion CFU of good bacteria. The table on the next page lists the different types of good bacteria that make up each gram of FloraBABY.
How will you give probiotics to my baby?

FloraBABY comes in individual sachets (0.5 grams per sachet). The nurse will mix the sachet with 1 mL of sterile water and then give it to your baby, just like any other medicine.

**Does my baby have to receive probiotics?**

If you do not want your baby to receive probiotics, let us know and we will not give them to your baby. We will continue to give your baby standard care and feedings.

If you have any questions or want to discuss probiotics any further, please let your healthcare team know.

<table>
<thead>
<tr>
<th>Bacteria</th>
<th>Amount of Bacteria per gram of FloraBABY</th>
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</thead>
<tbody>
<tr>
<td><em>Bifobacterium breve</em> (HA-129)</td>
<td>1.2 billion CFU</td>
</tr>
<tr>
<td><em>Lactobacillus rhamnosus</em> (HA-111)</td>
<td>1 billion CFU</td>
</tr>
<tr>
<td><em>Bifidobacterium bifidum</em> (HA-132)</td>
<td>0.8 billion CFU</td>
</tr>
<tr>
<td><em>Bifidobacterium infantis</em> (HA-116)</td>
<td>0.6 billion CFU</td>
</tr>
<tr>
<td><em>Bifidobacterium longum</em> (HA-135)</td>
<td>0.4 billion CFU</td>
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</tbody>
</table>

CFU, or “colony forming units”, refers to the number of active, live bacteria found in a sample. Here, the sample is a gram of FloraBABY.