## ACRONYMS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAD</td>
<td>Antibiotic associated diarrhea - Prevention</td>
<td></td>
</tr>
<tr>
<td>BG</td>
<td>Reduces blood glucose in Type II Diabetes (FBG and HA1c)</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Constipation</td>
<td></td>
</tr>
<tr>
<td>CDAD</td>
<td><em>Clostridium difficile</em> associated diarrhea - Prevention</td>
<td></td>
</tr>
<tr>
<td>CD-PP</td>
<td><em>Clostridium difficile</em> associated diarrhea – Primary prevention</td>
<td></td>
</tr>
<tr>
<td>CE/AD</td>
<td>Childhood eczema/Atopic dermatitis</td>
<td></td>
</tr>
<tr>
<td>CID</td>
<td>Common infectious disease</td>
<td></td>
</tr>
<tr>
<td>FAP</td>
<td>Functional abdominal pain</td>
<td></td>
</tr>
<tr>
<td>HP</td>
<td><em>Helicobacter pylori</em> - Adjunct to standard eradication therapy</td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>Infectious diarrhea</td>
<td></td>
</tr>
<tr>
<td>IBD-P</td>
<td>Inflammatory bowel disease - Pouchitis</td>
<td></td>
</tr>
<tr>
<td>IBD-UC</td>
<td>IBD - Ulcerative colitis - Adjunct to standard therapy</td>
<td></td>
</tr>
<tr>
<td>IBS</td>
<td>Irritable bowel syndrome</td>
<td></td>
</tr>
<tr>
<td>LDL-C</td>
<td>Reduces LDL and total cholesterol</td>
<td></td>
</tr>
<tr>
<td>NEC*</td>
<td>Necrotizing Enterocolitis (newborn) *as per hospital protocol, not for self-administration</td>
<td></td>
</tr>
<tr>
<td>NI</td>
<td>Nosocomial infections prevention</td>
<td></td>
</tr>
<tr>
<td>PD</td>
<td>Periodontal disease</td>
<td></td>
</tr>
<tr>
<td>Regurg/GI Mot</td>
<td>Reduces regurgitation/Improves gastrointestinal motility</td>
<td></td>
</tr>
<tr>
<td>TD</td>
<td>Traveler’s diarrhea</td>
<td></td>
</tr>
<tr>
<td>CFU</td>
<td>Colony forming units (number of viable bacteria)</td>
<td></td>
</tr>
</tbody>
</table>

**Disclaimer:** In the case of probiotics the clinical evidence only supports certain formulations/brand names of the probiotics (including the genus, species, alphanumeric designation, number of live bacteria present, the blend of probiotic strains present, and finally the non-active ingredients present). Every attempt was made by the author and reviewers to include the published clinical data on every probiotic formulation available. No bias is intended toward any one formulation. This chart is reflective of published evidence available up to date. It does not represent endorsement of any specific product. It has been produced as a tool to assist healthcare professionals in providing evidence-based recommendations to their patients. Please forward any questions or concerns to author Dragana Skokovic-Sunjic at dragana@bhsoftinc.com.
INCLUSION CRITERIA AND LEVELS OF EVIDENCE

ALL 3 MUST BE SATISFIED:

• Commercially available in Canada as a supplement or probiotic-containing food

• Approved by Health Canada (NPN or EN - Natural Health Product Number) for probiotic supplements (tablets, capsules, sachets)

• Published clinical evidence for the particular strain(s) present in each product/food

NOTE:

• For products containing multiple strains, evidence must be for the specified combination and not for the separate probiotic strains

• Some products are excluded from the current edition due to changes in strains used

• Please refer to individual publications for specifics of patient populations studied and details of clinical effect (age and gender)

LEVEL I: Evidence obtained from at least one properly designed randomized trial (HIGHEST LEVEL).

LEVEL II: Evidence obtained from well-designed controlled trials without randomization/Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than one center or research group/Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled trials might also be regarded as this type of evidence.

LEVEL III: Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.
<table>
<thead>
<tr>
<th>Brand Name</th>
<th>Probiotic Strain(s)</th>
<th>Dosage Form</th>
<th>CFU/dose</th>
<th>No. of doses/day</th>
<th>ID</th>
<th>AAD</th>
<th>CDAD</th>
<th>CD-PP</th>
<th>TD</th>
<th>C</th>
<th>IBS</th>
<th>IBD-UC</th>
<th>IBD-P</th>
<th>HP</th>
<th>PD</th>
<th>LDL-C</th>
<th>CID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Align ™</td>
<td>B. longum infantis 35624</td>
<td>Capsules</td>
<td>1B/capsule</td>
<td>1 capsule</td>
<td>I1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>I2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| BioGaia ® drops  
BioGaia ® chew tabs | L. reuteri protectis DSM 17938 | Drops Chew. tabs | 100M/5drops 100M/tab | 5 drops 1 tab | I5 | I3  |       |       |    |   |     |         |       |     |     |       |     |
| Bio-K+® CL 1285  
Bio-K+® CL 1285 Extra Strength | L. acidophilus CL 1285  
L. casei LBC80R  
L. rhamnosus CLR2 | Regular Capsule  
Strong Capsule  
“Travel Protection”  
Extra Strength | 12.5B/capsule  
25B/capsule  
30B/capsule  
50B/capsule | 1-2 capsules | I12 | I3, 4 | I11, 13 | a | I13, 14 a | I26 | I13, 14 | I23-25 |       |     |     |       |     |
| Ferment. milk lq.  
Ferment. rice lq.  
Ferment. soy lq. | 50B/tub | 1/2-1 tub | | | | | | | | | | | | | | |
| Cardioviva ™ | L. reuteri NCIMB 30242 | Capsule | 2B/capsule | 2 capsules | | | | | | | | | | | | | |
| Culturelle ® | L. rhamnosus GG | Capsule | 10B/capsule | 1 capsule | | | | | | | | | | | | | |
| Florastor ® | Saccharomyces boulardii lyo | Capsule Sachet | 5B/capsule  
5B/sachet | 1-2 capsules  
1-2 sachets | | | | | | | | | | | | | |
| Mutaflor® Extra Strength | E. coli Nissle 1917 | Capsule | 2.5-25B/ capsule | 1-2 capsules | | | | | | | | | | | | | |
| PerioBalance ™ | L. reuteri proteolyticus (ATCC 55730 and ATCC PTA 5289) | Lozenge | 100M each/lozenge | 2 lozenges | | | | | | | | | | | | | |
| Proxiflor ® (formerly Lacidofil) | L. rhamnosus R0011  
L. helveticus R0052 | Capsule | 4B/capsule | 1-3 capsules | | | | | | | | | | | | | |
| TuZen ® | L. plantarum 299v | Capsule | 10B/capsule | 1-2 capsules | | | | | | | | | | | | | |
| UltraFlora™ Cold Support (formerly Health Defense) | L. plantarum HEAL9  
L. paracasei 8700:2 | Capsule | 0.5B each per capsule | 1 capsule | | | | | | | | | | | | | |
| VSL#3® | L. acidophilus SD5212, L. casei SD5218  
L. bulgaricus SD5210, L. plantarum SD5209,  
B. longum SD5219, B. infantis SD5220,  
B. breve SD5206, S. thermophilus SD5207 | Sachet | 450B/sachet | 1-4 sachets | | | | | | | | | | | | | |

a. Health Canada, Dec 2012 approved claim for Bio-K+100 (NPN 80038453): “Helps to reduce the risk of *Clostridium Difficile* Associated Diarrhea (CDAD) in hospitalized patients”

Clinical Guide to Probiotic Supplements Available in Canada: Indications, Dosage Forms and Clinical Evidence to Date (2015) ©BHSoft inc 2015
## INDICATIONS FOR PEDIATRIC HEALTH

<table>
<thead>
<tr>
<th>Brand Name</th>
<th>Probiotic Strain(s)</th>
<th>Dosage Form</th>
<th>CFU/dose</th>
<th>No. doses/day</th>
<th>NEC* (newborn)</th>
<th>Colic</th>
<th>ID</th>
<th>AAD</th>
<th>CDAD</th>
<th>IBD-UC</th>
<th>HP</th>
<th>C</th>
<th>IBS/ FAP</th>
<th>CID</th>
<th>NI</th>
<th>CE/AD</th>
</tr>
</thead>
<tbody>
<tr>
<td>BioGaia ® drops</td>
<td>L. reuteri protectis DSM 17938</td>
<td>Drops Chew. tabs</td>
<td>100M/ 5drops 100M/tab</td>
<td>5 drops 1 tab</td>
<td>15,15,52,53*</td>
<td>12-58</td>
<td>19-65</td>
<td>16</td>
<td>15,66</td>
<td>15,68</td>
<td>15</td>
<td>10</td>
<td>12</td>
<td>12,20</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>BioGaia ® chew tabs</td>
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</tr>
<tr>
<td>Culturelle®</td>
<td>L. rhamnosus GG</td>
<td>Powder</td>
<td>1B/packet</td>
<td>6-10 packets</td>
<td></td>
<td>12-77</td>
<td>18,79</td>
<td></td>
<td>10,81</td>
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<tr>
<td>FloraBABY®</td>
<td>B. breve HA-129 1.2B L. rhamnosus HA-111 1B B. bifidum HA-152 0.8B B. infantis HA-116 0.6B B. longum HA-135 0.4B</td>
<td>Powder</td>
<td>4B/scoop</td>
<td>1 scoop</td>
<td></td>
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</tr>
<tr>
<td>Florastor®</td>
<td>Saccharomyces boulardii lyo</td>
<td>Capsule Sachet</td>
<td>5B/capsule 5B/sachet</td>
<td>1-2 capsules 1-2 sachets</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Junior Daily Probiotic (formerly DDS® Junior)</td>
<td>B. lactis UABLA-12 4.2B L. acidophilus DDS®-1 0.8B</td>
<td>Powder</td>
<td>5B/gram</td>
<td>2 grams</td>
<td></td>
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</tr>
<tr>
<td>Proxiflor® (formerly Lacidofil)</td>
<td>L. rhamnosus R0011 3.8B L. helveticus R0052 0.2B</td>
<td>Capsule</td>
<td>4B/capsule</td>
<td>1 capsule</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>UltraFlora™ Children’s</td>
<td>L. acidophilus NCFM® B. animalis subsp lactis Bi-07</td>
<td>Chewable tablet</td>
<td>2.5B each/ chewable tablet</td>
<td>1-2 chew tablets</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>VSL® #3</td>
<td>L. acidophilus SD5212 L. casei SD5218 L. bulgaricus SD5210 L. plantarum SD5209 B. longum SD5219 B. infantis SD5220 B. breve SD5206 S. thermophilus SD5207</td>
<td>Sachet</td>
<td>450B/ sachet</td>
<td>1-2 sachets</td>
<td></td>
<td>100</td>
<td>100,102</td>
<td></td>
<td>12,20</td>
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<td></td>
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</tbody>
</table>
## INDICATIONS FOR VAGINAL HEALTH

<table>
<thead>
<tr>
<th>Brand Name</th>
<th>Probiotic Strain(s)</th>
<th>Dosage Form</th>
<th>CFU per dose</th>
<th>No. of doses/day</th>
<th>Vulvovaginal candidiasis</th>
<th>Bacterial vaginosis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ProB™ (RePhresh ProB)</strong></td>
<td><em>L. rhamnosus</em> GR-1, <em>L. reuteri</em> RC-14</td>
<td>Oral capsule</td>
<td>2.5B each/capsule</td>
<td>1 capsule</td>
<td>[134,135]</td>
<td></td>
</tr>
<tr>
<td>and Fem-Dophilus®</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Provacare™</strong></td>
<td><em>L. rhamnosus</em> Lc35</td>
<td>Vaginal capsule</td>
<td>3.41B/capsule</td>
<td>2 capsules</td>
<td></td>
<td>[110]</td>
</tr>
<tr>
<td><strong>Purfem™</strong></td>
<td><em>L. rhamnosus</em> PB01, <em>L. gasseri</em> EN-153471 (EB01)</td>
<td>Vaginal ovule</td>
<td>1B each/ovule</td>
<td>1 ovule</td>
<td></td>
<td>[143,15]</td>
</tr>
<tr>
<td><strong>UltraFlora™ Women’s</strong></td>
<td><em>L. reuteri</em> RC-14, <em>L. rhamnosus</em> GR-1</td>
<td>Oral capsule</td>
<td>1B each/ capsule</td>
<td>2 capsules</td>
<td></td>
<td>[156]</td>
</tr>
</tbody>
</table>
## Functional Foods with Added Probiotics

<table>
<thead>
<tr>
<th>Brand Name</th>
<th>Probiotic Strain(s)</th>
<th>Dosage Form (CFU)</th>
<th>No. of doses / day</th>
<th>Children</th>
<th>Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>At the time of packaging</td>
<td></td>
<td>ID</td>
<td>HP</td>
</tr>
<tr>
<td><strong>Activia®</strong></td>
<td><em>B. lactis</em> CNCM I-2494 (formerly DN-173 010)</td>
<td>1B/serving</td>
<td>1-3 servings</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DanActive®</strong></td>
<td><em>L. casei sp. Paracasei</em> CNCM I-1518 (formerly DN-114 001)</td>
<td>10B/serving</td>
<td>1-2 servings</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nestlé® Gerber® Infant Cereals</strong></td>
<td><em>B. lactis</em> BB-12 DSM 10140</td>
<td>1B/28 g serving</td>
<td>1 serving</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nestlé® Gerber® Toddler Cereals</strong></td>
<td><em>B. lactis</em> BB-12 DSM 10140</td>
<td>1B/35 g serving</td>
<td>1 serving</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nestlé® Gerber® Graduates Toddler Drink</strong></td>
<td><em>B. lactis</em> BB-12 DSM 10140</td>
<td>1B/200mL serving</td>
<td>1 serving</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nestlé® Good Start® Probiotic Infant Formula</strong></td>
<td><em>B. lactis</em> BB-12 DSM 10140</td>
<td>130M/100mL serving</td>
<td>Routine feeding if an alternative to breast milk is required</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Yoptimal®</strong></td>
<td><em>B. lactis</em> BB-12</td>
<td>1B/100g</td>
<td>1-3 servings</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


42. Busch R et al. Randomized, Double Blind and Placebo Controlled Study Using a Combination of Two Probiotic \textit{Lactobacillus} to Alleviate Symptoms and Frequency of Common Cold, Food and Nutrition Sciences, 2013, 4(11A), 13-20.

43. Parkes GC, Chatoo D, Emmanuel A. The probiotic VSL#3 increases scbm and reduces symptom severity scores in patients with functional constipation. Gut. 2011;60:163.


68. Weizman Z, et al. A Randomized Controlled Trial of \textit{Lactobacillus reuteri} DSM 17938 in Functional abdominal pain of childhood. SP-N-0102, Nutrition Trial symposia within the ESPGHAN program (9-12th of June, 2014 presented at 47th Annual Meeting of the European Society for Paediatric Gastroenterology, Hepatology and Nutrition, in Jerusalem)


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