

New Roots Herbal Educational Series



Acidophilus Ultra: 11 billion CFU/capsule

L. acidophilus, L. helveticus, L. plantarum, L. casei, B. longum, B. infantis, B. breve, L. rhamnosus (2 strains), L. bulgaricus and S. thermophilus

Specific probiotic strains in New Roots Herbal's Acidophilus Ultra have been extensively researched in human clinical intervention trials, for a variety of important outcomes (Foster 2011). To date, 23 human studies have evaluated the role of these strains for treatment of:

- Antibiotic-associated diarrhea;
- *H. pylori* eradication;
- Irritable bowel syndrome;
- Pediatric gastrointestinal disorders;
- Lactose intolerance.

Dosages in these studies have ranged between 2 billion and 12 billion CFU per day. In addition, probiotic administration has been shown to benefit individuals with inflammatory bowel disease (Crohn's or ulcerative colitis) by reducing the severity of symptoms during active disease, inducing remission in some patients, as well as by prolonging periods of disease remission (Fujimori 2007, Sood 2009, Tursi 2010, Zocco 2006). Dosages to achieve this range vary from 18 to 75 to 450 billion CFU per day depending on the severity of the case (Zocco 2006). Therefore, even 1 capsule per day of Acidophilus Ultra delivers a powerful dose; however, clinically it is safe and appropriate to use much larger dosages.

New Roots Herbal's Acidophilus Ultra delivers 11 strains of probiotics: *L. acidophilus, L. helveticus, L. plantarum, L. casei, B. longum, B. infantis, B. brevis, L. rhamnosus (2 strains), L. bulgaricus* and *S. thermophilus*. Since specific strains have been shown to be beneficial for specific conditions, a multistrain product may be the most comprehensive in terms of the array of benefits it offers. Moreover, the most recent research in this area suggests that multistrain probiotics may be more effective for the same conditions compared to single-species products (Chapman 2011). In a review of 16 studies comparing multistrain to single-strain products, multistrain products were found to be superior in 75% (n = 12) of studies (Chapman 2011).

New Roots Herbal's Acidophilus Ultra is unique because it is one of the few probiotic products available that is enteric-coated. Probiotics exert many of their key effects, including immune modulation, in the small intestine. Before they can reach the small intestine, however, probiotics must pass through the stomach, where one of the important functions of stomach acid (hydrochloric acid, HCl) is to effectively kill any bacteria (good or bad) or viruses that are ingested. Currently, one of the scientific debates around probiotics is whether these good bacteria actually survive to make it alive into the small intestine (Jensen 2012). Acidophilus Ultra is enteric coated, meaning the capsules are protected by a coating that is resistant to degradation by HCl. Human trials have shown that administration of enteric-coated probiotics achieve effects comparable to a five-fold greater dose of a non-enteric-coated product (Del Piano 2010, 2011). This design ensures that unlike most other products on the market, the probiotic bacteria in Acidophilus Ultra will make it to the small intestine where they have their effects.

New Roots Herbal's Acidophilus Ultra is one of the few products containing pharmaceutical-grade probiotics. In addition, the probiotic strains contained in New Roots Herbal's Acidophilus Ultra have each been studied for their effects in scientific studies, and as such, the product has been approved by Health Canada's Natural Health Products Directorate (NHPD) and has received its NPN (Natural Product Number).

New Roots Herbal's Probiotics Urgency is an ultra-high-dose probiotic (50 billion CFU per capsule) appropriate for use in situations of acute antibiotic-associated diarrhea (AAD) or other acute situations such as infectious diarrhea (gastroenteritis). It contains 10 different species. A 2012 meta-analysis of 82 clinical trials found that probiotics reduce the risk of AAD by 42% (Hempel 2012). Similarly, a Cochrane meta-analysis found that probiotics are an effective treatment for infectious diarrhea, reducing the duration of symptoms by over 24 h, and reducing the risk of diarrhea persisting for more than 4 days by almost 60% (Allen 2010). Dose = 2 capsules per day.

New Roots Herbal's Probiotics Urgency is also appropriate for use in inflammatory bowel disease, due to the higher dosage provided. A 2010 meta-analysis of probiotics for the maintenance of remission in patients with ulcerative colitis found that not only were probiotics beneficial, but the studies examined utilized doses generally starting around 20 billion CFU and often up to between 50 and 900 billion CFU per day (Sang 2010). Trials utilizing 50–200 billion CFU have shown a reduction in symptoms and histological score in patients with Crohn's disease (Fujimori 2007, Steed 2010).

EACH PH⁵D NATURAL ENTERIC COATED VEGETABLE CAPSULE CONTAINS 11 CULTURES OF 11 BILLION LIVE ACTIVE HEALTHY CELLS:

<i>Lactobacillus acidophilus</i> (R0148)	605 million CFU
<i>Lactobacillus helveticus</i> (R0052)	550 million CFU
<i>Lactobacillus plantarum</i> (R1012)	440 million CFU
<i>Lactobacillus casei</i> (R0215)	440 million CFU
<i>Bifidobacterium longum</i> (R0175)	330 million CFU
<i>Bifidobacterium infantis</i> (R0033)	330 million CFU
<i>Bifidobacterium breve</i> (R0070)	330 million CFU
<i>Lactobacillus rhamnosus</i> (R1039)	3.3 billion CFU
<i>Lactobacillus rhamnosus</i> (R0011)	4.4 billion CFU
<i>Lactobacillus delbrueckii ssp. bulgaricus</i> (R9001)	55 million CFU
<i>Streptococcus salivarius ssp. thermophilus</i> (R0083) ..	220 million CFU

SUGGESTED USE: Adults, adolescents, and children ≥1 year old: Take 1–2 capsules daily with water or juice or as directed by your health care practitioner.

Important novel applications of probiotics

Indications for immune function	Dose (CFU)	Comment
Improved immune function & resistance against infections: upper respiratory tract infection (URTI), urinary tract infection (UTI), vaginitis	5 billion CFU <i>Lactobacillus</i> strains: <i>L. casei</i> , <i>L. plantarum</i> , <i>L. helveticus</i> , <i>B. infantis</i> , <i>B. bifidum</i> , & F.O.S.	Mane 2011: <i>Lactobacillus</i> in the elderly improved immune cell counts so as to better fight infection. Also reduces upper respiratory tract infections in athletes and children, as well as adults (Cazzola 2010, Gleeson 2011).
Atopy: Eczema, asthma, allergy	2–10 billion CFU <i>L. sakei</i> / <i>L. gasseri</i>	Woo 2010: Decreased disease activity by ~30% and improved markers of immune function in children with eczema. Chen 2010: Asthmatic children had improved lung function, decreased symptoms of asthma and allergy.
Autoimmune disease: lupus, arthritis, psoriasis	2 billion CFU <i>Bacillus coagulans</i> ; <i>L. rhamnosus</i> , <i>L. reuteri</i> × 2–3 mo	Mandel 2010, Pineda 2011: Patients with rheumatoid arthritis had reductions in pain and improvements in function.
Pregnancy/ lactation: Prevention of atopy	1-10 billion CFU variety of <i>Lactobacillus</i> (<i>lactis</i> , <i>rhamnosus</i> , <i>reuteri</i>) & <i>Bifidobacterium</i> (<i>bifidum</i> , <i>breve</i> , <i>lactis</i>) strains	Rouchotas 2010: Administration in pregnancy and early infancy reduces risk of offspring developing atopy (eczema, asthma, allergy).

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