

## ***Bifidobacterium longum BB536 - List of Human Clinical Studies***

### **(1) Effects on the gastrointestinal condition, constipation, diarrhoea, intestinal environment.**

	<b>Title</b>	<b>Author</b>	<b>Publication</b>	<b>Country</b>
<b>1</b>	Effect of Bifidobacterium longum BB536 administration on the intestinal environment, defecation frequency and fecal characteristics of human volunteers.	Ogata T, et al.	Bioscience Microflora. 16, 53-58 (1997)	Japan
<b>2</b>	Effect of yogurt containing Bifidobacterium longum BB536 on the intestinal environment, fecal characteristics and defecation frequency: A comparison with standard yogurt.	Yaeshima T, et al.	Bioscience Microflora. 16, 73-77 (1997)	Japan
<b>3</b>	Effect of Bifidobacterium longum BB536 yogurt administration on the intestinal environment of healthy adults.	Ogata T, et al.	Microbial Ecology in Health and Disease. 11, 41-46 (1999)	Japan
<b>4</b>	The effect of Bifidobacterium cultured milk on the "Regularity" among on aged group.	Seki M, et al.	J Jpn Soc Nut Food Sci. 31, 379-387 (1978)	Japan
<b>5</b>	Effects of Bifidobacterium fermented milks on human intestinal flora.	Ballongue J, et al.	Lait. 73, 249-256 (1993)	France
<b>8</b>	Variation in small groups of constant intestinal flora during administration of anticancer or immunosuppressive drugs.	Tomoda T, et al.	Medicine & Biology. 103, 45-49 (1981)	Japan
<b>9</b>	Effect of administration of yogurt containing Bifidobacterium in healthy persons.	Tomoda T, et al.	Bifidus. 4, 21-24 (1990)	Japan
<b>10</b>	Effect of yogurt and yogurt supplemented with Bifidobacterium and/or lactulose in healthy persons : A comparative study.	Tomoda T, et al.	Bifidobacteria Microflora. 10, 123-130 (1991)	Japan
<b>11</b>	Experience in dosing obstetrical and gynecological inpatients with Bifidobacterium -containing yogurt "La Sante" .	Ebisawa E, et al.	Clinical Nutrition. 66, 805-810 (1995)	Japan
<b>12</b>	Yogurt with Bifidobacterium longum reduces erythromycin-induced gastrointestinal effects.	Colombel JF, et al.	Lancet. 2, 43 (1987)	France
<b>13</b>	Effect of sweet yogurt containing Bifidobacterium longum BB536 on the defecation frequency and fecal characteristics of healthy adults : A comparison with sweet standard yogurt.	Yaeshima T, et al.	J Nutritional Food. 1, 29-34 (1998)	Japan
<b>14</b>	Effect of non-fermented milk containing Bifidobacterium longum BB536 on the defecation frequency and fecal characteristics in healthy adults.	Yaeshima T, et al.	J Nutritional Food. 4, 1-6 (2001)	Japan
<b>15</b>	Effect of yogurt containing Bifidobacterium longum BB536 on the defecation frequency and fecal characteristics of healthy adults: A double-blind cross over study.	Xiao JZ, et al.	Jpn J Lactic Acid Bact. 18, 31-36 (2007)	Japan

16	Effect of supplements with Bifidobacterium longum and Lactobacillus acidophilus on the intestinal microbiota during administration of clindamycin.	Orrhage K, et al.	Microb Ecol Health Dis. 7, 17-25 (1994)	Sweden
17	The variation and adherence of species of Bifidobacterium in intestine during oral administration of Bifidobacterium.	Tomoda T, et al.	Medicine and Biology. 113, 125-128 (1986)	Japan
18	The effect of probiotic fermented milk and inulin on the functions and microecology of the intestine.	Sairanen U, et al.	J Dairy Res. 74, 367-373 (2007)	Finland
19	Effect of supplements with lactic acid bacteria and oligofructose on the intestinal microflora during administration of cefpodoxime proxetil.	Orrhage KM, et al.	J Antimicrob Chemother. 46, 603-612 (2000)	Sweden
20	Effect of the oral intake of yogurt containing Bifidobacterium longum BB536 on the cell numbers of enterotoxigenic Bacteroides fragilis in microbiota.	Odamaki T, et al.	Anaerobe. 18, 14-18 (2012)	Japan
21	Modulatory effects of Bifidobacterium longum BB536 on defecation in elderly patients receiving enteral feeding.	Kondo J, et al.	World J Gastroenterol. 19, 2162-2170 (2013)	Japan
22	A randomized double-blind controlled trial: Impact of probiotics on diarrhea in patients treated with pelvic radiation.	Demers M, et al.	Clin Nutr. 33, 761-7 (2013)	Canada
23	Effect of Bifidobacterium longum Supplements on the Human Faecal Microflora.	Orrhage K, et al.	Microbial Ecology in Health and Disease. 4, 265-270 (1991)	Sweden
23	Effect of probiotic yoghurt on animal-based diet- induced change in gut microbiota: an open, randomised, parallel-group study.	Odamaki T, et al.	Benef Microbes. 7, 473-484 (2016)	Japan
25	Effect of Lactobacillus rhamnosus HN001 and Bifidobacterium longum BB536 on the healthy gut microbiota composition at phyla and species level: A preliminary study.	Toscano M, et al.	World J Gastroenterol. 23, 2696-2704 (2017)	Italy
26	Novel encapsulation improves recovery of probiotic strains in fecal samples of human volunteers.	Mai V, et al.	Applied microbiol biotechnol. 101(4) 1419-25. (2017)	USA
27	An Evaluation of a Multi-strain Probiotic Supplement on General Wellness in Healthy Adults: A Randomized, Double-Blind, Dose-Response Study.	Fatani A, et al.	Psychosom Med. 31(1). 2017	USA
28	Effects of Bifidobacterium longum and Lactobacillus rhamnosus on Gut Microbiota in Patients with Lactose Intolerance and Persisting Functional Gastrointestinal Symptoms: A Randomised, Double-Blind, Cross-Over Study	Vitellio P, et al.	Nutrients. 11(4): 886(2019)	Italy

## (2) Effects on the prevention of allergy

	Title	Author	Publication	Country
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1	Effect of probiotic <i>Bifidobacterium longum</i> BB536 [corrected] in relieving clinical symptoms and modulating plasma cytokine levels of Japanese cedar pollinosis during the pollen season. A randomized double-blind, placebo-controlled trial.	Xiao JZ, et al.	J Investig Allergol Clin Immunol. 16, 86-93 (2006)	Japan
2	Probiotics in the treatment of Japanese cedar pollinosis: a double-blind placebo-controlled trial.	Xiao JZ, et al.	Clin Exp Allergy. 36, 1425-1435 (2006)	Japan
3	Clinical efficacy of probiotic <i>Bifidobacterium longum</i> for the treatment of symptoms of Japanese cedar pollen allergy in subjects evaluated in an environmental exposure unit.	Xiao JZ, et al.	Allergol Int. 56, 67-75 (2007)	Japan
4	Fluctuation of fecal microbiota in individuals with Japanese cedar pollinosis during the pollen season and influence of probiotic intake.	Odamaki T, et al.	J Investig Allergol Clin Immunol. 17, 92-100 (2007)	Japan
5	Changes in plasma TARC levels during Japanese cedar pollen season and relationships with symptom development.	Xiao JZ, et al.	Int Arch Allergy Immunol. 144, 123-127 (2007)	Japan
6	Influence of <i>Bifidobacterium longum</i> BB536 intake on faecal microbiota in individuals with Japanese cedar pollinosis during the pollen season.	Odamaki T, et al.	J Med Microbiol. 56, 1301-1308 (2007)	Japan
7	Distribution of different species of the <i>Bacteroides fragilis</i> group in individuals with Japanese cedar pollinosis.	Odamaki, T, et al.	Appl Environ Microbiol. 74, 6814-6817 (2008)	Japan
8	<i>Bifidobacterium</i> mixture ( <i>B longum</i> BB536, <i>B infantis</i> M-63, <i>B breve</i> M-16V) treatment in children with seasonal allergic rhinitis and intermittent asthma.	Miraglia Del Giudice M, et al.	Ital J Pediatr. 43, 25 (2017)	Italy

### (3) Effects on the prevention of the infection

	Title	Author	Publication	Country
1	Intestinal <i>Candida</i> overgrowth and <i>Candida</i> infection in patients with leukemia : Effect of <i>Bifidobacterium</i> administration.	Tomoda T, et al.	<i>Bifidobacteria Microflora</i> . 7, 71-74 (1988)	Japan
2	The effect of <i>Bifidobacterium</i> administration in patients with leukemia.	Kageyama T, et al.	<i>Bifidobacteria Microflora</i> . 3, 29-33 (1984)	Japan
3	Effects of <i>Bifidobacterium longum</i> BB536 administration on influenza infection, influenza vaccine antibody titer, and cell-mediated immunity in the elderly.	Namba K, et al.	<i>Biosci Biotechnol Biochem</i> . 74, 939-945 (2010)	Japan
4	Effect of <i>Bifidobacterium longum</i> on PPI-based triple therapy for eradication of <i>Helicobacter pylori</i> : A randomized, double-blind placebo-controlled study.	T Chitapanarux, et al.	<i>Journal of Functional Foods</i> . 13, 289–294 (2015)	Thailand
5	<i>Bifidobacterium longum</i> BB536 alleviated upper respiratory illnesses and modulated gut microbiota profiles in Malaysian pre-school children.	Lau AS, et al.	<i>Benef Microbes</i> . 9(1): 61-70( 2018)	Malaysia
6	<i>Bifidobacterium longum</i> BB536 and Changes in Septicemia Markers Associated with Antibiotic Use in Critically Ill Patients	Arai T, et al.	<i>Analg Resusc: Curr Res</i> 7:2 (2018)	Japan

7	Does daily intake of bovine lactoferrin-containing products ameliorate rotaviral gastroenteritis?	Egashira M, et al.	Acta Paediatr.96(8):1242-4 (2007)	Japan
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#### (4) Effects on the immuno-response

	Title	Author	Publication	Country
1	Effects of Bifidobacterium containing milk on chemiluminescence reaction of peripheral leukocytes and mean corpuscular volume of red blood cells - A possible role of Bifidobacterium on activation of macrophages.	Sekine I, et al.	Biomedicine & Therapeutics. 14, 691-695 (1985)	Japan
2	Upregulation of T-bet and tight junction molecules by Bifidobacterium longum improves colonic inflammation of ulcerative colitis.	Takeda Y, et al,	Inflamm Bowel Dis. 15, 1617-1618 (2009)	Japan
3	Effects of Bifidobacterium longum BB536 administration on influenza infection, influenza vaccine antibody titer, and cell-mediated immunity in the elderly.	Namba K, et al.	Biosci. Biotechnol. Biochem. 74, 939-945 (2010)	Japan
4	Clinical effects of probiotic Bifidobacterium longum BB536 on immune function and intestinal microbiota in elderly patients receiving enteral tube feeding.	Akatsu H, et al.	JPEN J Parenter Enteral Nutr. 37, 631-40 (2013)	Japan
5	Modulation of T Regulatory and Dendritic Cell Phenotypes Following Ingestion of Bifidobacterium longum, AHCC® and Azithromycin in Healthy Individuals	Chowdhury AH, et al.	Nutrients. 11(10): E2470(2019)	UK

#### (5) Effects on lowering cholesterol

	Title	Author	Publication	Country
1	Effect of fermented milk containing Lactobacillus acidophilus and Bifidobacterium longum on plasma lipids of women with normal or moderately elevated cholesterol.	Andrade S & Borge N	J Dairy Res. 76, 469-474 (2009)	Portugal
2	Nutraceutical approach for the management of cardiovascular risk – a combination containing the probiotic Bifidobacterium longum BB536 and red yeast rice extract: results from a randomized, double-blind, placebo-controlled	Ruscica M, et al.	Nutr J. 18(1):13,(2019)	Italy

#### (6) Effects on Infant health

	Title	Author	Publication	Country
1	Effects of administration of Bifidobacterium in extremely premature infants : Development of intestinal microflora by orally administered Bifidobacterium longum (in comparison with Bifidobacterium breve).	Akiyama K, et al.	Acta neonatologica Japonica. 30, 257-263 (1994)	Japan

2	Transient colonization of the gut of newborn infants by orally administered bifidobacteria and lactobacilli.	Bennet R, et al.	Acta Paediatr. 81, 784-787 (1992)	Sweden
3	Clinical evaluation of a new starter formula for infants containing live Bifidobacterium longum BL999 and prebiotics.	Puccio G, et al.	Nutrition. 23, 1-8 (2007)	Italy
4	Effect of a milk formula containing probiotics on the fecal microbiota of Asian infants at risk of atopic diseases.	Mah KW, et al	Pediatr Res. 62, 674-679 (2007)	Singapore
5	Assessment of the safety, tolerance, and protective effect against diarrhea of infant formulas containing mixtures of probiotics or probiotics and prebiotics in a randomized controlled trial.	Chouraqui JP, et al	Am J Clin Nutr. 87, 1365-1373 (2008)	France
6	Oral supplementation with probiotics in very-low- birth-weight preterm infants: a randomized, double- blind, placebo-controlled trial.	Rouge C, et al.	Am J Clin Nutr. 89, 1828-1835 (2009)	France
7	The impact of perinatal probiotic intervention on gut microbiota: Double-blind placebo-controlled trials in Finland and Germany.	Grzeskowiak L, et al.	Anaerobe. 18, 7-13 (2012)	Finland Germany
8	Tolerance, safety, and effect on the faecal microbiota of an enteral formula supplemented with pre- and probiotics in critically ill children.	Simakachorn N, et al.	J Pediatr Gastroenterol Nutr. 53, 174-181 (2011)	Thailand
9	Effect of formula composition on the development of infant gut microbiota.	Hascoet JM, et al.	JPGN. 52, 756-762 (2011)	France
10	Improved growth of toddlers fed a milk containing synbiotics.	Firmansyah A, et al.	Asia Pac J Clin Nutr. 20, 69-76 (2011)	Indonesia
11	Probiotic supplementation in the first 6 months of life in at risk Asian infants--effects on eczema and atopic sensitization at the age of 1 year.	Soh SE, et al.	Clin Exp Allergy. 39, 571-578 (2009)	Singapore
12	Maternal probiotic supplementation during pregnancy and breast-feeding reduces the risk of eczema in the infant.	Rautava S, et al.	J Allergy Clin Immunol. 130, 1355-1360 (2012)	Finland
13	Effect of administration of bifidobacteria on intestinal microbiota in low-birth-weight infants and transition of administered bifidobacteria: A comparison between one-species and three-species administration.	Ishizeki S, et al.	Anaerobe. 23, 38-44 (2013)	Japan
14	Effects of Bifidobacterial Supplementation to Pregnant Women and Infants in the Prevention of Allergy Development in Infants and on Fecal Microbiota.	Enomoto T, et al.	Allergol Int. 63, 575-585 (2014)	Japan
15	Effects of a fermented soy product and Bifidobacterium on atopic dermatitis in children : a pilot study.	Kando N, et al.	Allergy and Immunity. 22, 1 (2015)	Japan
16	Effects of Bifidobacterium supplementation on intestinal microbiota composition and the immune response in healthy infants.	Wu BB, et al.	World J Pediatr. 12, 177-182 (2015)	China
17	Assessment of the safety, tolerance, and protective effect against diarrhea of infant formulas containing mixtures of probiotics or probiotics and prebiotics in a randomized controlled trial.	Chouraqui JP, et al	Am J Clin Nutr. 87, 1365-1373 (2008)	Swiss

<b>18</b>	Long-term safety and efficacy of perinatal probiotic intervention: Evidence from a follow-up study of four randomized, double-blind, placebo- controlled trials.	Lundelin K, et al	Pediatr Allergy Immunol. 28, 170-175 (2017)	Finland
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### (7) Effects on Skin health

	Title	Author	Publication	Country
<b>1</b>	Effect of milk supplemented with bifidobacteria on skin condition in healthy adult women.	Yonezawa S, et al.	Clinical Allergy. 34, 872-875 (2014)	Japan
<b>2</b>	Effect of supplement containing Silybum marianum extract, soy extract, collagen peptide, bifidobacteria and apple extract on skin: A randomized placebo-controlled, double-blind, parallel group comparative clinical study.	Ishii Y, et al.	Glycative Stress Research. 3, 156-171 (2016)	Japan

### (8) Effects on the Intestinal Disease (IBS, IBD)

	Title	Author	Publication	Country
<b>1</b>	Efficacy of probiotic treatment with Bifidobacterium longum 536 for induction of remission in active ulcerative colitis: A randomized, double-blinded, placebo-controlled multicenter trial.	Tamaki H, et al.	Digestive Endoscopy. 28, 67-74 (2016)	Japan
<b>2</b>	A Mixture of 3 Bifidobacteria Decreases Abdominal Pain and Improves the Quality of Life in Children With Irritable Bowel Syndrome: A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Crossover Trial.	Giannetti E, et al.	J Clin Gastroenterol. 51, e5-e10 (2017)	Italy
<b>3</b>	Probiotics for Irritable Bowel Syndrome: Clinical Data in Children.	Giannetti E and Staiano A.	J Pediatr Gastroenterol Nutr. 63, Suppl 1:S25-26 (2016)	Italy
<b>4</b>	Efficacy of a mixture of probiotic agents as complementary therapy for chronic functional constipation in childhood.	Russo M, et al.	Ital J Pediatr. 43, 24 (2017)	Italy
<b>5</b>	Probiotic Bifidobacterium longum NCC3001 Reduces Depression Scores and Alters Brain Activity: A Pilot Study in Patients With Irritable Bowel Syndrome.	Pinto-Sanchez MI, et al.	Gastroenterology. 153, 448-459.e8 (2017)	Canada
<b>6</b>	Effect of Bifidobacterium Longum Bb536 Plus Lactoferrin in the Treatment of Irritable Bowel Syndrome. A Double Blind Clinical Trial.	Biviano I, et al.	Adv Res Gastroentero Hepatol 6(4) (2017)	Italy
<b>7</b>	Effects of Bifidobacterium longum BB536 and Lactobacillus rhamnosus HN001 in IBS patients	Bonfrate L, et al.	Eur j Clin Invest. 50:e13201 (2020)	Italy

### (9) Postoperative management, adjuvant therapy

	Title	Author	Publication	Country
<b>1</b>	Effect of probiotics on postoperative quality of gastric bypass surgeries: a prospective randomized trial.	Chen JC, et al.	Surg Obes Relat Dis. 12, 57-61 (2016)	Taiwan

2	Perioperative supplementation with bifidobacteria improves postoperative nutritional recovery, inflammatory response, and fecal microbiota in patients undergoing colorectal surgery: a prospective, randomized clinical trial.	Mizuta M, et al.	Biosci Microbiota Food Health. 35, 77-87 (2016)	Japan
3	Effects of synbiotics administration for digestive system side effects in patients treated with chemotherapy.	Seki K, et al.	J Japanese Society for Parenteral and Enteral Nutrition. 32, 865-870 (2017)	Japan
4	Gut Microbiota composition after diet and probiotics in overweight breast cancer survivors: a randomized open-label pilot intervention trial	M. Pellegrini MD, et al.	Nutrition 74:110749 (2020)	Italy