Supplementary Materials

FACTIVA search summary

Search Sur	nmary
Text	"gut health" or "healthy gut" or "unhealthy gut" or "gut bacteria" or "microbiota" or "microbione" or "probiotics"
Date	01/01/2018 to 10/11/2019
Source	USA Today - All sources Or Los Angeles Times - All sources Or Hewaday (N.Y.) Or New York For Survey - All sources Or Tempa Bay Times (Fila) Or Washington Float - All sources Or Hewaday (N.Y.) Or New York For Survey - All sources Or The Guarden For Survey - Common Survey - Character - All Sources Or The Guarden (J.K.) - All sources Or The Guarden (J.K.) - All sources Or The Washington Times - Or The Washington Times - All sources Or The Washington Times - Or The Washington Times - All sources Or The Washington Times - Or The Washington Times - All sources Or The Washington Times - Or The Washington Times - All sources Or The Washington Times - Or The Washington Times - Or The Washington Times - All sources Or The Washington Times - All sources - Or The Washington Times - Or The Washington Times - Or The Washington Times - All sources - Or The Washington Times - Or The Washington
Author	All Authors
Company	All Companies
Subject	All Subjects
Industry	All Industries
Region	All Regions
Language	English
Results Found	2,676
Timestamp	11 October 2019 10:47 AM
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Sources and count table

Calgary Herald	CAN	12	
Edmonton Journal	CAN	2	
Montreal Gazette	CAN	13	
National Post	CAN	2	
Regina Leader Post	CAN	1	
Saskatoon Star Phoenix	CAN	1	
The Globe and Mail	CAN	27	
The Hamilton Spectator	CAN	30	
The London Free Press	CAN	2	
The Ottawa Sun	CAN	2	
The Toronto Star	CAN	11	
The Toronto Sun	CAN	3	
The Winnipeg Sun	CAN	1	
Vancouver Province	CAN	5	
Vancouver Sun	CAN	6	
Victoria Times Colonist	CAN	15	
Waterloo Region Record	CAN	4	
Winnipeg Free Press	CAN	6	
Daily Mail	UK	82	
Independent Online	UK	53	
Mirror.co.uk	UK	68	
Telegraph	UK	170	
The Guardian	UK	70	
Business Insider	USA	16	
CBS News: Evening News	USA	1	
CNN Wire	USA	20	
Forbes.com	USA	7	
MarketWatch	USA	4	
New York Daily News	USA	1	
New York Post	USA	19	

New York Times	USA	21	
Reuters News	USA	23	
Star-Tribune	USA	13	
Tampa Bay Times	USA	7	
The Atlanta Journal - Constitution	USA	4	
The Boston Globe	USA	17	
The New York Times	USA	30	
The Philadelphia Inquirer	USA	10	
The Wall Street Journal	USA	13	
The Washington Post	USA	33	
USA Today	USA	5	
*			
	USA	18	
	CAN	18	
	UK	5	
			41
TOTALS	CAN	143	17.2%
	USA	244	29.4%
	UK	443	53.4%
		830	100.0%

^{*}with a large number of articles coming from one source (The Telegraph), analysis was conducted to conclude that the singular source was not displaying a trend of findings different from that of the remaining sources

Gut Health/Microbiome Coding Frame October 2019 / HLI, University of Alberta

Overview coding for context

- 1. Choose1: Is the article Relevant or Irrelevant? (Irrelevant articles include: one of the search terms appearing in text with no supporting text or elaboration; transcripts of radio or tv shows; one of the search terms used solely in the context of animal health; duplicate of previously read article)
- 2. Is the article's main focus highlighting research? Yes/No
- 3. Does the article include a discussion of babies/children in relation to gut health (including all search terms included)?

Principle content coding

- 1. Does the article make claims of health benefits related to gut health (gut bacteria), probiotics, or the microbiome (microbiota)? Yes/No
 - 1b. If yes in #1, what health benefits are listed? [choose all that apply always code a specific benefit if possible before coding for a more general category]

- Brain health (memory, learning, cognitive abilities, etc.)
- General health (no specific items listed but seen as valuable for health, and also, general phrasing such as "optimal gut health"; "optimal health"; "improve wellness"; "manage stress", "good wellbeing, etc.)
- General mental health ("mental health", but no specifics mentioned, etc.)
- General Digestive/GI Issues (bloating, gas (flatulence), diarrhea, acid reflux, leaky gut also "aiding", "helping with", etc.)
- Skin health (including cosmetic and more serious issues like eczema, psoriasis or other forms of dermatitis)
- Allergies
- Alzheimer's disease
- Anorexia
- Anxiety
- Arthritis
- Behaviour (children)
- Cancer
- Clostridium difficile (C. diff)
- Colds ("common colds", etc.)
- Colic
- Crohn's disease/Colitis/Irritable Bowel Disease
- Dementia
- Depression
- Diabetes
- Energy related (including fatigue, and Chronic Fatigue Syndrome (CFS))
- Fibromyalgia
- Headaches
- Heart related (including heart disease and artery issues)
- Immune system related ("boosting", improving, fighting off infection, etc.)
- Irritable Bowel Syndrome (IBS)
- Menopause (including hormonal imbalances)
- Mood (improving)
- Multiple Sclerosis
- Obesity (including weight management (weight loss, etc.)
- Oral disease
- Parkinson's disease
- Pain (including chronic pain, joint pain)
- · Pharmaceutical drug development
- Pharmaceutical drug metabolizing
- Pregnancy health (including avoiding premature delivery)
- Other [fill in]
- 2. Does the article provide information (actions one can take) regarding how an individual can reap benefits related to gut health (gut bacteria), probiotics, or the microbiome (microbiota)? Yes/No
 - 2b) If yes in #2, what actions are mentioned? [list] (e.g. eating certain foods, fecal transplants, etc.)? [choose all that apply]

- Food/drink intake (including fostering diversity, and eating schedule/advice related to food timing, chewing, etc.)
- Avoiding certain food/drinks
- Breastfeeding
- Take probiotics
- Take prebiotics
- General actions ("monitor", "look after"; "take care of", etc.)
- Avoid antibiotics
- Avoid caesareans (including be wary of; benefits lost if, etc.)
- Avoid over-sanitation of house (including avoiding chemicals in cleaning products)
- Avoid smoking (including stop smoking)
- Exercise
- Fecal transplant (including pills (i.e. "poop pills"))
- Massage
- Sinus microbiome transplant
- Sleep related (get more, get better, etc.)
- Weight management ("control", etc.)
- Yoga
- · Vaginal seeding
- Other [fill in]
- 3. Does the article state, in any form, that the benefits or current research related to gut health (gut bacteria), probiotics, or the microbiome (microbiota) might be unproven, ineffective or exaggerated? Yes/No
 - 3a) If yes, is this rhetoric described as "(only) preliminary research", "developing research", "early stage research", etc.
- 4. (ADDITION TO #1, attached to coding platform) Does the article portray probiotics as beneficial without making links to ideas of the microbiome/gut health? Yes/No

Complete list of Health Topics

	Health topics	# of articles	(n=732)	n=830	1502
1	General health	284	38.8%	34.2%	18.91%
2	General Digestive/GI Issues	126	17.2%	15.2%	8.39%
3	Immune system related	105	14.3%	12.7%	6.99%
4	Obesity	84	11.5%	10.1%	5.59%
5	Cancer	51	7.0%	6.1%	3.40%
6	General mental health	51	7.0%	6.1%	3.40%
7	Allergies	50	6.8%	6.0%	3.33%
8	Skin Health	46	6.3%	5.5%	3.06%
9	Diabetes	43	5.9%	5.2%	2.86%

					1
10	Depression	42	5.7%	5.1%	2.80%
11	Asthma	36	4.9%	4.3%	2.40%
12	Crohns disease/Colitis/Irritable Bowel Disease	33	4.5%	4.0%	2.20%
13	Mood	32	4.4%	3.9%	2.13%
14	Brain health	30	4.1%	3.6%	2.00%
15	Irritable Bowel Syndrome	30	4.1%	3.6%	2.00%
16	Clostridium difficile	29	4.0%	3.5%	1.93%
17	Inflammation	26	3.6%	3.1%	1.73%
18	Anxiety	24	3.3%	2.9%	1.60%
19	Inflammatory Bowel Disease	21	2.9%	2.5%	1.40%
20	Heart related	18	2.5%	2.2%	1.20%
21	Alzheimers disease	15	2.0%	1.8%	1.00%
22	Energy related	14	1.9%	1.7%	0.93%
23	Parkinsons disease	14	1.9%	1.7%	0.93%
24	Autism	12	1.6%	1.4%	0.80%
25	Metabolism	11	1.5%	1.3%	0.73%
26	Metabolic Disorder	10	1.4%	1.2%	0.67%
27	Autoimmune Diseases (disorders)	9	1.2%	1.1%	0.60%
28	Diarrhea	9	1.2%	1.1%	0.60%
29	Intestinal Permeability (leaky gut)	9	1.2%	1.1%	0.60%
30	Sleep	9	1.2%	1.1%	0.60%
31	Weight management	9	1.2%	1.1%	0.60%
32	Dementia	8	1.1%	1.0%	0.53%
33	Menopause	8	1.1%	1.0%	0.53%
34	Multiple Sclerosis	7	1.0%	0.8%	0.47%
35	Stress	7	1.0%	0.8%	0.47%
36	Athletic Performance/Recovery	6	0.8%	0.7%	0.40%
37	Liver Disease	6	0.8%	0.7%	0.40%
38	Vitamin Absorption	6	0.8%	0.7%	0.40%
39	Antibiotic resistance (and recovery)	5	0.7%	0.6%	0.33%
40	Arthritis	5	0.7%	0.6%	0.33%
41	Metabolic Syndrome	5	0.7%	0.6%	0.33%
42	Constipation	4	0.5%	0.5%	0.27%
43	Diverticulitis	4	0.5%	0.5%	0.27%
44	Eczema in Children	4	0.5%	0.5%	0.27%
45	ADHD	3	0.4%	0.4%	0.20%

46	Appetite	3	0.4%	0.4%	0.20%
47	Bipolar Disorder	3	0.4%	0.4%	0.20%
48	cardiovascular disease	3	0.4%	0.4%	0.20%
49	Colds	3	0.4%	0.4%	0.20%
50	Headaches	3	0.4%	0.4%	0.20%
51	Influenza	3	0.4%	0.4%	0.20%
52	Lyme Disease	3	0.4%	0.4%	0.20%
53	Oral Hygiene	3	0.4%	0.4%	0.20%
54	PKU	3	0.4%	0.4%	0.20%
55	Pregnancy health	3	0.4%	0.4%	0.20%
56	Preventative measures (disease)	3	0.4%	0.4%	0.20%
57	Tooth decay	3	0.4%	0.4%	0.20%
58	Vaginal issues	3	0.4%	0.4%	0.20%
59	Aging	2	0.3%	0.2%	0.13%
60	Behaviour	2	0.3%	0.2%	0.13%
61	Blood circulation	2	0.3%	0.2%	0.13%
62	Bone Health (density)	2	0.3%	0.2%	0.13%
63	Cholesterol	2	0.3%	0.2%	0.13%
64	Eating disorders	2	0.3%	0.2%	0.13%
65	E-coli	2	0.3%	0.2%	0.13%
66	Fibromyalgia	2	0.3%	0.2%	0.13%
67	Gene Activity	2	0.3%	0.2%	0.13%
68	General Beauty and Apperance	2	0.3%	0.2%	0.13%
69	HIV	2	0.3%	0.2%	0.13%
70	Immunity	2	0.3%	0.2%	0.13%
71	Infections (general)	2	0.3%	0.2%	0.13%
72	Jet lag	2	0.3%	0.2%	0.13%
73	Migraine	2	0.3%	0.2%	0.13%
74	Motor Nueron Disease	2	0.3%	0.2%	0.13%
75	Oral disease	2	0.3%	0.2%	0.13%
76	Pain	2	0.3%	0.2%	0.13%
77	Seratonin Levels	2	0.3%	0.2%	0.13%
78	ulcers	2	0.3%	0.2%	0.13%
79	Urea Cycle Disorders	2	0.3%	0.2%	0.13%
80	Urinary Tract Infections	2	0.3%	0.2%	0.13%
81	Polycystic Ovary Syndrome	2	0.3%	0.2%	0.13%

82	Alcohol Cravings	1	0.1%	0.1%	0.07%
83	Anemia	1	0.1%	0.1%	0.07%
84	Antioxidant Status	1	0.1%	0.1%	0.07%
85	Appendicitis	1	0.1%	0.1%	0.07%
86	Appetite	1	0.1%	0.1%	0.07%
87	artery health	1	0.1%	0.1%	0.07%
88	bloodstream infections	1	0.1%	0.1%	0.07%
89	Celiac Disease	1	0.1%	0.1%	0.07%
90	Chemotherapy Recovery	1	0.1%	0.1%	0.07%
91	Childhood Development	1	0.1%	0.1%	0.07%
92	Cholera	1	0.1%	0.1%	0.07%
93	Cognitive Disorder	1	0.1%	0.1%	0.07%
94	Dental Health/Gingivitis	1	0.1%	0.1%	0.07%
95	Emotional Responses	1	0.1%	0.1%	0.07%
96	Flu vaccine effectiveness	1	0.1%	0.1%	0.07%
97	Gluten Intolerances	1	0.1%	0.1%	0.07%
98	Glycemic Control	1	0.1%	0.1%	0.07%
99	Gonorrhoea	1	0.1%	0.1%	0.07%
100	Gum Disease	1	0.1%	0.1%	0.07%
101	H. Pylori Eradication	1	0.1%	0.1%	0.07%
102	Hair loss	1	0.1%	0.1%	0.07%
103	Hairy tongue	1	0.1%	0.1%	0.07%
104	Healing system	1	0.1%	0.1%	0.07%
105	Heartburn	1	0.1%	0.1%	0.07%
106	Hepatic Encephalopathy	1	0.1%	0.1%	0.07%
107	Hormonal Bloating	1	0.1%	0.1%	0.07%
108	Hyperammonemia	1	0.1%	0.1%	0.07%
109	Hypertension	1	0.1%	0.1%	0.07%
110	Improve focus	1	0.1%	0.1%	0.07%
111	Infant Breastfeeding	1	0.1%	0.1%	0.07%
112	Infertility	1	0.1%	0.1%	0.07%
113	Interstitial Cystitis	1	0.1%	0.1%	0.07%
114	Iron Deficiency	1	0.1%	0.1%	0.07%
115	Kidney Disease	1	0.1%	0.1%	0.07%
116	Kidney Stones	1	0.1%	0.1%	0.07%
117	Medication Rashes	1	0.1%	0.1%	0.07%

118	Melanoma	1	0.1%	0.1%	0.07%
119	Menstral health	1	0.1%	0.1%	0.07%
120	motor neurone disease	1	0.1%	0.1%	0.07%
121	Mucus Colitis	1	0.1%	0.1%	0.07%
122	Nervous system related	1	0.1%	0.1%	0.07%
123	Osteoarthritis	1	0.1%	0.1%	0.07%
124	Osteoporosis	1	0.1%	0.1%	0.07%
125	Pharmaceutical drug development	1	0.1%	0.1%	0.07%
126	Pharmaceutical drug metabolizing	1	0.1%	0.1%	0.07%
127	phenylketonuria	1	0.1%	0.1%	0.07%
128	Pnemonia	1	0.1%	0.1%	0.07%
129	Pouchitis	1	0.1%	0.1%	0.07%
130	Premature Births	1	0.1%	0.1%	0.07%
131	psoriasis	1	0.1%	0.1%	0.07%
132	rehab	1	0.1%	0.1%	0.07%
133	Respiratory infections	1	0.1%	0.1%	0.07%
134	Schizophrenia	1	0.1%	0.1%	0.07%
135	Sore Tongue	1	0.1%	0.1%	0.07%
136	Thyroid Condition	1	0.1%	0.1%	0.07%
137	Transplant Success	1	0.1%	0.1%	0.07%
138	UTIs	1	0.1%	0.1%	0.07%

Complete list of actions

		#	out of 653 articles with		
	Health Action	articles	actions	830	983
1	Food/drink intake	373	57.1%	44.9%	37.9%
2	Take probiotics	174	26.6%	21.0%	17.7%
3	Avoiding certain food/drinks	85	13.0%	10.2%	8.6%
4	Avoid antibiotics	55	8.4%	6.6%	5.6%
5	Fecal transplant	37	5.7%	4.5%	3.8%
6	Avoid caesareans	21	3.2%	2.5%	2.1%
7	Stress Management	21	3.2%	2.5%	2.1%
8	Breastfeeding	19	2.9%	2.3%	1.9%
9	Take prebiotics	18	2.8%	2.2%	1.8%
10	Exercise	16	2.5%	1.9%	1.6%
11	Avoid over-sanitation of house	13	2.0%	1.6%	1.3%
12	General actions	13	2.0%	1.6%	1.3%
13	Avoid alcohol	10	1.5%	1.2%	1.0%
14	Supplements	9	1.4%	1.1%	0.9%
15	Fasting	8	1.2%	1.0%	0.8%

16	Sleep	8	1.2%	1.0%	0.8%
	Spending time outdoors (+ dirt play)	7	1.1%	0.8%	0.7%
	Medications	5	0.8%	0.6%	0.5%
	Yoga	4	0.6%	0.5%	0.4%
	Avoid acid-suppressing drugs	3	0.5%	0.4%	0.3%
	Colonics	3	0.5%	0.4%	0.3%
	Detoxes	3	0.5%	0.4%	0.3%
_	Avoid Pollution	2	0.3%	0.2%	0.2%
	Avoid proton-pump inhibitors	2	0.3%	0.2%	0.2%
	bacteriophages	2	0.3%	0.2%	0.2%
	Medication Research and Development	2	0.3%	0.2%	0.2%
	Raw water	2	0.3%	0.2%	0.2%
	Use Eco-Friendly Household Cleaners	2	0.3%	0.2%	0.2%
	Mayr Method	2	0.3%	0.2%	0.2%
	Personalized diet	2	0.3%	0.2%	0.2%
	Vaginal Seeding	2	0.3%	0.2%	0.2%
	Monitor poo (and schedule)	2	0.3%	0.2%	0.2%
	Avoid Stomach Acid Blockers	2	0.3%	0.2%	0.2%
	Gut Health Clinics		0.3%	0.2%	0.2%
	Eat breakfast	2	0.3%	0.2%	0.2%
		1	0.3%	0.2%	0.2%
	Eat slowly Hydration	1	0.2%	0.1%	0.1%
	IV/Drip therapy	1	0.2%	0.1%	0.1%
	Vaginal Birth	1	0.2%	0.1%	0.1%
	CBD Oil		0.2%	0.1%	0.1%
	Adult Consumption of Breast Milk	1	0.2%	0.1%	0.1%
	Pilates	1	0.2%	0.1%	0.1%
	Liver Treatments	1	0.2%	0.1%	0.1%
	Animal Saliva	1	0.2%	0.1%	0.1%
_	Anti-microbials	1	0.2%	0.1%	0.1%
		1	0.2%	0.1%	0.1%
	Appendix Removal Pepperment Oil	1	0.2%	0.1%	0.1%
	Avoid Childhood Vaccination	1	0.2%	0.1%	0.1%
_	Avoid Endocrine Disruptor Exposure	1	0.2%	0.1%	0.1%
	Avoid Giving Infants Scented Baths	1	0.2%	0.1%	0.1%
	Avoid glysophate fertilizers	1	0.2%	0.1%	0.1%
	Avoid Herbicide Exposure	1	0.2%	0.1%	0.1%
32	Avoid intense scrubbing, shaving, waxing and exposure to sun		0.270	0.170	0.170
53	(skin)	1	0.2%	0.1%	0.1%
	Avoid Limiting Transmission of Maternal Microbiota	1	0.2%	0.1%	0.1%
	Avoid Mouthwash	1	0.2%	0.1%	0.1%
	Avoid NSAID painkillers	1	0.2%	0.1%	0.1%
	Avoid smoking	1	0.2%	0.1%	0.1%
	Avoid taking opioids for long periods of time	1	0.2%	0.1%	0.1%
	Hormones	1	0.2%	0.1%	0.1%
	Azithromycin use	1	0.2%	0.1%	0.1%
	Bioengineered Bacteria	1	0.2%	0.1%	0.1%
	City stop spraying glyphosate in city parks	1	0.2%	0.1%	0.1%
UZ	city stop spraying gryphosate in city parks		0.270	U.1/0	0.170

63	Colon Cancer Screening	1	0.2%	0.1%	0.1%
64	Cryotherapy	1	0.2%	0.1%	0.1%
65	Drugs Containing Human Gut Microbes	1	0.2%	0.1%	0.1%
66	E. Coli Derivative	1	0.2%	0.1%	0.1%
67	Electrical Stimulation of the Vagus Nerve	1	0.2%	0.1%	0.1%
68	Engineered Genes	1	0.2%	0.1%	0.1%
69	Eradicate Gut Health Following Cardiac Arrest	1	0.2%	0.1%	0.1%
70	Freeze-Dried Healthy Gut Bacteria	1	0.2%	0.1%	0.1%
71	Skin-to-Skin Contact Between Mother and Baby	1	0.2%	0.1%	0.1%
72	Gardening	1	0.2%	0.1%	0.1%
73	Gargling and Singing Loudly	1	0.2%	0.1%	0.1%
74	Gratitude Journalling,	1	0.2%	0.1%	0.1%
75	Hormonal Therapy	1	0.2%	0.1%	0.1%
76	Injecting Antibiotics Rather than Ingesting Them	1	0.2%	0.1%	0.1%
77	Interactions with Other Children	1	0.2%	0.1%	0.1%
78	Intestinal Absorbent (Enterosgel)	1	0.2%	0.1%	0.1%
79	Lower glycemic load	1	0.2%	0.1%	0.1%
80	microbiome drug	1	0.2%	0.1%	0.1%
81	migration	1	0.2%	0.1%	0.1%
82	more holisitic approach to health	1	0.2%	0.1%	0.1%
83	Psychobiotics	1	0.2%	0.1%	0.1%
84	Relationships	1	0.2%	0.1%	0.1%
85	Sinus microbiome transplant	1	0.2%	0.1%	0.1%
86	treatments, diagnostic testing	1	0.2%	0.1%	0.1%
87	Use of probiotic cleaning	1	0.2%	0.1%	0.1%