Supplemental Table 1: Search strategy

All searches were performed on 15th. Nov .2021 by academic librarian Sabina Gillsund and Narcisa Hannerz at the Karolinska Institutet University library. Search strategies were peer reviewd by Hilde Strømme, University of Oslo Library of Medicine and Science.

Documentation of search strategies

University Library search consultation group

Date: **November 2021**

Topic/research question: **High dietary fiber intake in children and growth, bowel function and iron status**

Name of researcher(s): Agneta Åberg & Jutta Dierkes

Librarian(s): Narcisa Hannerz & Sabina Gillsund

Databases:

1. Medline (Ovid)
2. Embase (embase.com)
3. Cochrane (Wiley)
4. Scopus (Elsevier)

Total number of hits:

* Before deduplication: 9,414
* After deduplication: 5,643

Comments:

1. Medline

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| Interface: Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and DailyDate of Search: 15th November 2021Number of hits: 2,265Comment: In Ovid, two or more words are automatically searched as phrases; i.e. no quotation marks are needed | Field labels* exp/ = exploded MeSH term
* / = non exploded MeSH term
* .ti,ab,kf. = title, abstract and author keywords
* adjx = within x words, regardless of order
* \* = truncation of word for alternate endings
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| Database(s): **Ovid MEDLINE(R) and Epub Ahead of Print, In-Process, In-Data-Review & Other Non-Indexed Citations and Daily**1946 to November 12, 2021Search Strategy:

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| --- | --- | --- |
| **#** | **Searches** | **Results** |
| 1 | Dietary Fiber/ | 18336 |
| 2 | Polysaccharides/ | 46584 |
| 3 | ((fiber\* or fibre\* or roughage\* or wheat bran\*) and (ate or bean? or cereal\* or consum\* or diet\* or eat or eating or fed or feed or food or foods or fruit? or grain? or intake\* or ingest\* or legume? or nutrient\* or nutrition or pea or peas or plant\* or pulse? or vegan or vegetable? or vegetarian)).ti,ab,kf. | 66113 |
| 4 | (glycan? or polysaccharide?).ti,ab,kf. | 97223 |
| 5 | or/1-4 | 182835 |
| 6 | Child, Preschool/ | 961076 |
| 7 | Infant/ | 830823 |
| 8 | (baby or babies or child\* or infant? or infancy or toddler?).ti,ab,kf. | 1879370 |
| 9 | (("1" or "2" or "3" or "4" or "5") adj3 year? adj3 (age\* or old\*)).ti,ab,kf. | 237511 |
| 10 | (("6" or "7" or "8" or "9" or "10" or "11" or "12" or "13" or "14" or "15" or "16" or "17" or "18" or "19" or "20" or "21" or "22" or "23" or "24") adj3 month? adj3 (age\* or old\*)).ti,ab,kf. | 126288 |
| 11 | or/6-10 | 2512714 |
| 12 | exp Body Composition/ | 59678 |
| 13 | exp Body Size/ | 525246 |
| 14 | exp "Body Weights and Measures"/ | 650769 |
| 15 | Growth/ | 26450 |
| 16 | (growth or height or weight or overweight or obesity or obese or "body mass index" or bmi).ti,ab,kf. | 2792450 |
| 17 | ((body or mass) adj2 (composition or fat or fat-free)).ti,ab,kf. | 83848 |
| 18 | or/12-17 | 3047710 |
| 19 | exp Anemia, Iron-Deficiency/ | 10865 |
| 20 | Erythrocyte Indices/ | 5879 |
| 21 | Ferritins/ | 20434 |
| 22 | Hemoglobins/ | 70669 |
| 23 | Hematocrit/ | 33573 |
| 24 | Hepcidins/ | 3342 |
| 25 | Iron/ | 99457 |
| 26 | Iron, Dietary/ | 3031 |
| 27 | Receptors, Transferrin/ | 6632 |
| 28 | Transferrin/ | 17219 |
| 29 | (anemi\* or anaemi\* or ferritin\* or haemoglobin\* or hematocrit or hemoglobin\* or hepcidin\* or isoferritin\* or nonanaemi\* or nonanemi\* or serotransferrin\* or siderophilin\* or transferrin or transferrins).ti,ab,kf. | 379004 |
| 30 | ((fe or iron) adj3 (deficien\* or diet\* or indices\* or intake\* or level\* or micronutrient\* or nutrient\* or nutriti\* or saturation\* or source\* or status or store\* or supplement\*)).ti,ab,kf. | 50016 |
| 31 | or/19-30 | 502567 |
| 32 | Abdominal Pain/ | 22433 |
| 33 | Constipation/ | 14887 |
| 34 | Defecation/ | 7413 |
| 35 | exp Diarrhea/ | 55013 |
| 36 | Digestion/ | 23435 |
| 37 | Dysbiosis/ | 4886 |
| 38 | Encopresis/ | 666 |
| 39 | exp Gastrointestinal Absorption/ | 45175 |
| 40 | exp Gastrointestinal Motility/ | 37891 |
| 41 | Irritable Bowel Syndrome/ | 8195 |
| 42 | (colicky pain or colonic inertia or colonospasm or constipation or defecation\* or defaecation or duodenum acid\* or duodenum pH or diarrhea or diarrhoea or digestion or dysbacterios\* or dysbios\* or dyschezia or dyspep\* or encopresis or epigastric or fat resorption or functional colonic disease\* or GI transit or ileum contraction or intestin\* adaptation or intestin\* reabsorption or intestine\* tone or malabsorp\* or obstipation or rect\* motility or stool habit\*).ti,ab,kf. | 285092 |
| 43 | ((abdomen or abdominal or bowel or colon\* or duoden\* or gastr\* or gut or ileal or ileum or intestin\* or stomach) adj2 (absorption\* or contract\* or dysmotility or emptying or function\* or habit\* or motilities or motility or motion or movement\* or pain or peristalsis or permeability or propulsion or transit)).ti,ab,kf. | 156003 |
| 44 | ((fat or glucose or iron or jejunal or jejunum or lipid\* or rectal or rectum) adj2 (absorbenc\* or absorption\*)).ti,ab,kf. | 11422 |
| 45 | ((irritable or mucomembranous or mucous or spastic or spasm or unstable) adj2 (bowel or colon or coliti\*)).ti,ab,kf. | 15455 |
| 46 | or/32-45 | 507198 |
| 47 | 18 or 31 or 46 | 3888472 |
| 48 | 5 and 11 and 47 | 2590 |
| 49 | 5 and 11 and 32 | 44 |
| 50 | 5 and 11 and 46 | 830 |
| 51 | 48 not (animals not humans).sh. | 2275 |
| 52 | limit 51 to (congress or consensus development conference or consensus development conference, nih or editorial or festschrift or guideline or historical article or interview or lecture or letter or "meta analysis" or news or newspaper article or personal narrative or portrait or "review" or "systematic review") | 460 |
| 53 | 51 not 52 | 1815 |
| 54 | 51 not (editorial or interview or letter or comment or congress or legal case or meeting abstract).pt. | 2265 |

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2. Embase

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| Interface: embase.comDate of Search: 15th November 2021Number of hits: 2,789Comment: Emtree is the controlled vocabulary in Embase | Field labels* /exp = exploded Emtree term
* /de = non exploded Emtree term
* ti,ab,kw = title, abstract and author keywords
* NEAR/x = within x words, regardless of order
* \* = truncation of word for alternate endings
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| --- | --- | --- |
| No. | Query | Results |
| #1 | 'dietary fiber'/de | 23805 |
| #2 | 'fiber intake'/de | 825 |
| #3 | 'high fiber diet'/de | 2312 |
| #4 | 'low fiber diet'/de | 249 |
| #5 | 'polysaccharide'/de | 50662 |
| #6 | (fiber\*:ti,ab,kw OR fibre\*:ti,ab,kw OR roughage\*:ti,ab,kw OR 'wheat bran\*':ti,ab,kw) AND (ate:ti,ab,kw OR bean$:ti,ab,kw OR cereal\*:ti,ab,kw OR consum\*:ti,ab,kw OR diet\*:ti,ab,kw OR eat:ti,ab,kw OR eating:ti,ab,kw OR fed:ti,ab,kw OR feed:ti,ab,kw OR food:ti,ab,kw OR foods:ti,ab,kw OR fruit$:ti,ab,kw OR grain$:ti,ab,kw OR intake\*:ti,ab,kw OR ingest\*:ti,ab,kw OR legume$:ti,ab,kw OR nutrient\*:ti,ab,kw OR nutrition:ti,ab,kw OR pea:ti,ab,kw OR peas:ti,ab,kw OR plant$:ti,ab,kw OR pulse$:ti,ab,kw OR vegan:ti,ab,kw OR vegetable$:ti,ab,kw OR vegetarian:ti,ab,kw) | 75883 |
| #7 | glycan$:ti,ab,kw OR polysaccharide$:ti,ab,kw | 111334 |
| #8 | #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 | 206101 |
| #9 | 'baby'/de | 14154 |
| #10 | 'infant'/de | 745404 |
| #11 | 'preschool child'/de | 659331 |
| #12 | 'toddler'/de | 5579 |
| #13 | baby:ti,ab,kw OR babies:ti,ab,kw OR child\*:ti,ab,kw OR infant$:ti,ab,kw OR infancy:ti,ab,kw OR toddler$:ti,ab,kw | 2414507 |
| #14 | (('1' OR '2' OR '3' OR '4' OR '5') NEAR/3 year$ NEAR/3 (age\* OR old\*)):ti,ab,kw | 480560 |
| #15 | (('6' OR '7' OR '8' OR '9' OR '10' OR '11' OR '12' OR '13' OR '14' OR '15' OR '16' OR '17' OR '18' OR '19' OR '20' OR '21' OR '22' OR '23' OR '24') NEAR/3 month$ NEAR/3 (age\* OR old\*)):ti,ab,kw | 164482 |
| #16 | #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 | 3153328 |
| #17 | 'body composition'/exp | 113466 |
| #18 | 'body height'/exp | 78917 |
| #19 | 'body growth'/exp | 124974 |
| #20 | 'body mass'/exp | 511629 |
| #21 | 'body size'/exp | 28127 |
| #22 | 'body weight'/exp | 774637 |
| #23 | growth:ti,ab,kw OR height:ti,ab,kw OR weight:ti,ab,kw OR overweight:ti,ab,kw OR obesity:ti,ab,kw OR obese:ti,ab,kw OR 'body mass index':ti,ab,kw OR bmi:ti,ab,kw | 3619224 |
| #24 | ((body OR mass) NEAR/2 (composition OR fat OR 'fat free')):ti,ab,kw | 114402 |
| #25 | #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24 | 3997155 |
| #26 | 'ferritin'/de | 53929 |
| #27 | 'hematocrit'/de | 73772 |
| #28 | 'hemoglobin'/de | 218934 |
| #29 | 'hepcidin'/de | 9013 |
| #30 | 'iron'/de | 188524 |
| #31 | 'iron deficiency anemia'/exp | 31960 |
| #32 | 'iron intake'/de | 4994 |
| #33 | 'mean corpuscular volume'/de | 16859 |
| #34 | 'transferrin'/de | 33451 |
| #35 | 'transferrin receptor'/de | 9623 |
| #36 | anemi\*:ti,ab,kw OR anaemi\*:ti,ab,kw OR ferritin\*:ti,ab,kw OR haemoglobin\*:ti,ab,kw OR hematocrit:ti,ab,kw OR hemoglobin\*:ti,ab,kw OR hepcidin\*:ti,ab,kw OR isoferritin\*:ti,ab,kw OR nonanaemi\*:ti,ab,kw OR nonanemi\*:ti,ab,kw OR serotransferrin\*:ti,ab,kw OR siderophilin\*:ti,ab,kw OR transferrin:ti,ab,kw OR transferrins:ti,ab,kw | 541799 |
| #37 | ((fe OR iron) NEAR/3 (deficien\* OR diet\* OR indices\* OR intake\* OR level\* OR micronutrient\* OR nutrient\* OR nutriti\* OR saturation\* OR source\* OR status OR store\* OR supplement\*)):ti,ab,kw | 70693 |
| #38 | #26 OR #27 OR #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 | 812380 |
| #39 | 'abdominal pain'/exp | 188101 |
| #40 | 'intestine function'/exp | 82955 |
| #41 | 'intestine function disorder'/exp | 473118 |
| #42 | 'digestion'/de | 33645 |
| #43 | 'defecation'/exp | 15408 |
| #44 | 'defecation habit'/exp | 4220 |
| #45 | 'feces incontinence'/exp | 22682 |
| #46 | 'gastrointestinal absorption'/exp | 143525 |
| #47 | 'gastrointestinal absorption'/de | 4435 |
| #48 | 'gastrointestinal motility'/exp | 35639 |
| #49 | 'irritable colon'/de | 28736 |
| #50 | 'colicky pain':ti,ab,kw OR 'colonic inertia':ti,ab,kw OR colonospasm:ti,ab,kw OR constipation:ti,ab,kw OR defecation\*:ti,ab,kw OR defaecation:ti,ab,kw OR 'duodenum acid\*':ti,ab,kw OR 'duodenum ph':ti,ab,kw OR diarrhea:ti,ab,kw OR diarrhoea:ti,ab,kw OR digestion:ti,ab,kw OR dysbacteriosis:ti,ab,kw OR dysbiosis:ti,ab,kw OR dyschezia:ti,ab,kw OR dyspep\*:ti,ab,kw OR encopresis:ti,ab,kw OR epigastric:ti,ab,kw OR 'fat resorption':ti,ab,kw OR 'functional colonic disease\*':ti,ab,kw OR 'gi transit':ti,ab,kw OR 'ileum contraction':ti,ab,kw OR 'intestin\* adaptation':ti,ab,kw OR 'intestin\* reabsorption':ti,ab,kw OR 'intestine\* tone':ti,ab,kw OR malabsorp\*:ti,ab,kw OR obstipation:ti,ab,kw OR 'rect\* motility':ti,ab,kw OR 'stool habit\*':ti,ab,kw | 397486 |
| #51 | ((abdomen OR abdominal OR bowel OR colon OR duoden\* OR gastr\* OR gut OR intestin\* OR stomach) NEAR/2 (absorption\* OR contract\* OR dysmotilities OR dysmotility OR function\* OR habit\* OR motilities OR motility OR motion OR movement\* OR pain OR transit)):ti,ab,kw | 212043 |
| #52 | ((fat OR glucose OR iron OR jejunal OR jejunum OR lipid\* OR rectal OR rectum) NEAR/2 (absorbenc\* OR absorption\*)):ti,ab,kw | 14973 |
| #53 | ((irritable OR mucomembranous OR mucous OR spastic OR spasm OR unstable) NEAR/2 (bowel OR colon OR coliti\*)):ti,ab,kw | 24867 |
| #54 | #39 OR #40 OR #41 OR #42 OR #43 OR #44 OR #45 OR #46 OR #47 OR #48 OR #49 OR #50 OR #51 OR #52 OR #53 | 1054812 |
| #55 | #25 OR #38 OR #54 | 5495962 |
| #56 | #8 AND #16 AND #55 | 4298 |
| #57 | #56 NOT ([animals]/lim NOT [humans]/lim) | 3805 |
| #58 | #57 AND ('conference abstract'/it OR 'conference paper'/it OR 'conference review'/it OR 'editorial'/it OR 'letter'/it OR 'note'/it OR 'short survey'/it) | 1016 |
| #59 | #57 NOT #58 | 2789 |

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3. Cochrane Library

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| --- | --- |
| Interface: WileyDate of Search: 15th November 2021Number of hits: 790 | Field labels* ti,ab,kw = title, abstract and author keywords
* NEAR/x = within x words, regardless of order
* \* = truncation of word for alternate endings
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| --- | --- | --- |
| #1 | MeSH descriptor: [Dietary Fiber] this term only | 1812 |
| #2 | MeSH descriptor: [Polysaccharides] this term only | 609 |
| #3 | ((fiber\* OR fibre\* OR roughage\* OR (wheat NEXT bran\*)) AND (ate OR bean OR beans OR cereal\* OR consum\* OR diet\* OR eat OR eating OR fed OR feed OR food OR foods OR fruit OR fruits OR grain OR grains OR intake\* OR ingest\* OR legume OR legumes OR nutrient\* OR nutrition OR pea OR peas OR plant\* OR pulse OR pulses OR vegan OR vegetable OR vegetables OR vegetarian)):ti,ab,kw | 7388 |
| #4 | (glycan OR glycans OR polysaccharide OR polysaccharides):ti,ab,kw | 2984 |
| #5 | #1 OR #2 OR #3 OR #4 | 10170 |
| #6 | MeSH descriptor: [Child, Preschool] this term only | 30637 |
| #7 | MeSH descriptor: [Infant] this term only | 22740 |
| #8 | (baby or babies or child\* or infant or infants or infancy or toddler or toddlers):ti,ab,kw | 202864 |
| #9 | (("1" or "2" or "3" or "4" or "5") NEAR/3 year\* NEAR/3 (age\* or old\*)):ti,ab,kw | 77139 |
| #10 | (("6" or "7" or "8" or "9" or "10" or "11" or "12" or "13" or "14" or "15" or "16" or "17" or "18" or "19" or "20" or "21" or "22" or "23" or "24") NEAR/3 month\* NEAR/3 (age\* or old\*)):ti,ab,kw | 16068 |
| #11 | #6 OR #7 OR #8 OR #9 OR #10 | 253668 |
| #12 | MeSH descriptor: [Body Composition] explode all trees | 5484 |
| #13 | MeSH descriptor: [Body Size] explode all trees | 30735 |
| #14 | MeSH descriptor: [Body Weights and Measures] explode all trees | 34050 |
| #15 | MeSH descriptor: [Growth] explode all trees | 21026 |
| #16 | (growth or height or weight or overweight or obesity or obese or "body mass index" or bmi):ti,ab,kw | 221146 |
| #17 | ((body or mass) NEAR/2 (composition or fat or "fat-free")):ti,ab,kw | 21228 |
| #18 | #12 OR #13 OR #14 OR #15 OR #16 OR #17 | 228005 |
| #19 | MeSH descriptor: [Anemia, Iron-Deficiency] this term only | 1405 |
| #20 | MeSH descriptor: [Erythrocyte Indices] this term only | 176 |
| #21 | MeSH descriptor: [Ferritins] this term only | 1049 |
| #22 | MeSH descriptor: [Hemoglobins] this term only | 3352 |
| #23 | MeSH descriptor: [Hematocrit] this term only | 1561 |
| #24 | MeSH descriptor: [Hepcidins] this term only | 152 |
| #25 | MeSH descriptor: [Iron] this term only | 2600 |
| #26 | MeSH descriptor: [Iron, Dietary] this term only | 415 |
| #27 | MeSH descriptor: [Receptors, Transferrin] this term only | 123 |
| #28 | MeSH descriptor: [Transferrin] this term only | 374 |
| #29 | (anemi\* OR anaemi\* OR ferritin\* OR haemoglobin\* OR hematocrit OR hemoglobin\* OR hepcidin\* OR isoferritin\* OR nonanaemi\* OR nonanemi\* OR serotransferrin\* OR siderophilin\* OR transferrin OR transferrins):ti,ab,kw | 61012 |
| #30 | ((fe OR iron) NEAR/3 (deficien\* OR diet\* OR indices\* OR intake\* OR level\* OR micronutrient\* OR nutrient\* OR nutriti\* OR saturation\* OR source\* OR status OR store\* OR supplement\*)):ti,ab,kw | 6981 |
| #31 | #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 | 62747 |
| #32 | MeSH descriptor: [Abdominal Pain] this term only | 1126 |
| #33 | MeSH descriptor: [Constipation] this term only | 1827 |
| #34 | MeSH descriptor: [Defecation] this term only | 854 |
| #35 | MeSH descriptor: [Diarrhea] explode all trees | 3640 |
| #36 | MeSH descriptor: [Digestion] this term only | 338 |
| #37 | MeSH descriptor: [Dysbiosis] this term only | 98 |
| #38 | MeSH descriptor: [Encopresis] this term only | 34 |
| #39 | MeSH descriptor: [Gastrointestinal Absorption] explode all trees | 2171 |
| #40 | MeSH descriptor: [Gastrointestinal Motility] explode all trees | 3004 |
| #41 | MeSH descriptor: [Irritable Bowel Syndrome] this term only | 1289 |
| #42 | ("colicky pain" OR "colonic inertia" OR colonospasm OR constipation OR defecation\* OR defaecation OR (duodenum NEXT acid\*) OR "duodenum pH" OR diarrhea OR diarrhoea OR digestion OR dysbacteriosis OR dysbiosis OR dyschezia OR dyspep\* OR encopresis OR epigastric OR "fat resorption" OR ("functional colonic" NEXT disease\*) OR "GI transit" OR "ileum contraction" OR (intestin\* NEXT adaptation) OR (intestin\* NEXT reabsorption) OR (intestine\* NEXT tone) OR malabsorp\* OR obstipation OR (rect\* NEXT motility) OR (stool NEXT habit\*)):ti,ab,kw | 49546 |
| #43 | ((abdomen OR abdominal OR bowel OR colon OR duoden\* OR gastr\* OR gut OR ileal OR ileum OR intestin\* OR stomach) NEAR/2 (absorption\* OR contract\* OR dysmotilities OR dysmotility OR emptying OR function\* OR habit\* OR motilities OR motility OR motion OR movement\* OR pain OR peristalsis OR permeability OR propulsion OR transit)):ti,ab,kw | 31473 |
| #44 | ((fat OR glucose OR iron OR jejunal OR jejunum OR lipid\* OR rectal OR rectum) NEAR/2 (absorbence\* OR absorption\*)):ti,ab,kw | 1620 |
| #45 | ((irritable OR mucomembranous OR mucous OR spastic OR spasm OR unstable) NEAR/2 (bowel OR colon OR coliti\*)):ti,ab,kw | 4236 |
| #46 | #32 OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39 OR #40 OR #41 OR #42 OR #43 OR #44 OR #45 | 71340 |
| #47 | #18 OR #31 OR #46 | 324574 |
| #48 | #5 AND #11 AND #47 | 809 |
| #49 | #48 in Trials | 790 |

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4. Scopus

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| Interface: ElsevierDate of Search: 15th November 2021Number of hits: 3,570 | Field labels* TITLE-ABS-KEY = title, abstract and author keywords
* W/x = within x words, regardless of order
* \* = truncation of word for alternate endings
 |
| ( ( TITLE-ABS-KEY ( ( ( baby OR babies OR child\* OR infant# OR infancy OR toddler# ) OR ( ( ( "1" OR "2" OR "3" OR "4" OR "5" ) W/2 year# ) W/2 ( age\* OR old\* ) ) OR ( ( ( "4" OR "5" OR "6" OR "7" OR "8" OR "9" OR "10" OR "11" OR "12" OR "13" OR "14" OR "15" OR "16" OR "17" OR "18" OR "19" OR "20" OR "21" OR "22" OR "23" OR "24" ) W/2 month# ) W/2 ( age\* OR old\* ) ) ) ) ) ) AND ( ( TITLE-ABS-KEY ( ( fiber\* OR fibre\* OR roughage\* OR "wheat bran\*" ) AND ( ate OR bean# OR cereal\* OR consum\* OR diet\* OR eat# OR fed OR feed OR food OR foods OR fruit# OR grain# OR intake\* OR ingest\* OR legume# OR nutrient\* OR nutrition OR pea OR peas OR plant\* OR pulse# OR vegan OR vegetable# OR vegetarian ) ) ) ) AND ( ( TITLE-ABS-KEY ( growth OR height OR weight OR overweight OR obesity OR obese OR "body mass index" OR bmi ) ) OR ( TITLE-ABS-KEY ( ( body OR mass ) W/1 ( composition OR fat OR "fat-free" ) ) ) OR ( TITLE-ABS-KEY ( anemi\* OR anaemi\* OR ferritin\* OR haemoglobin\* OR hematocrit OR hemoglobin\* OR hepcidin\* OR isoferritin\* OR nonanaemi\* OR nonanemi\* OR serotransferrin\* OR siderophilin\* OR transferrin OR transferrins ) ) OR ( TITLE-ABS-KEY ( ( fe OR iron ) W/2 ( deficien\* OR diet\* OR indices\* OR intake\* OR level\* OR micronutrient\* OR nutrient\* OR nutriti\* OR saturation\* OR source\* OR status OR store\* OR supplement\* ) ) ) OR ( ( TITLE-ABS-KEY ( "colicky pain" OR "colonic inertia" OR colonospasm OR constipation OR defecation\* OR defaecation OR "duodenum acid\*" OR "duodenum pH" OR diarrhea OR diarrhoea OR digestion OR dysbacteriosis OR dysbiosis OR dyschezia OR dyspep\* OR encopresis OR epigastric OR "fat resorption" OR "functional colonic disease\*" OR "GI transit" OR "ileum contraction" OR "intestin\* adaptation" OR "intestin\* reabsorption" OR "intestine\* tone" OR malabsorp\* OR obstipation OR "rect\* motility" OR "stool habit\*" ) ) ) OR ( TITLE-ABS-KEY ( ( abdomen OR abdominal OR bowel OR colon\* OR duoden\* OR gastr\* OR gut OR ileal OR ileum OR intestin\* OR stomach ) W/2 ( absorption\* OR contract\* OR dysmotilities OR dysmotility OR emptying OR function\* OR habit\* OR motilities OR motility OR motion OR movement\* OR pain OR peristalsis OR permeability OR propulsion OR transit ) ) ) OR ( TITLE-ABS-KEY ( ( fat OR glucose OR iron OR jejunal OR jejunum OR lipid\* OR rectal OR rectum ) W/2 ( absorbenc\* OR absorption\* ) ) ) OR ( TITLE-ABS-KEY ( ( irritable OR mucomembranous OR mucous OR spastic OR spasm OR unstable ) W/1 ( bowel OR colon OR coliti\* ) ) ) ) AND ( EXCLUDE ( DOCTYPE , "re" ) OR EXCLUDE ( DOCTYPE , "cp" ) OR EXCLUDE ( DOCTYPE , "ch" ) OR EXCLUDE ( DOCTYPE , "le" ) OR EXCLUDE ( DOCTYPE , "no" ) OR EXCLUDE ( DOCTYPE , "ed" ) OR EXCLUDE ( DOCTYPE , "sh" ) OR EXCLUDE ( DOCTYPE , "cr" ) OR EXCLUDE ( DOCTYPE , "bk" ) ) |

Supplementary Table 2: Excluded studies after fulltext screening

|  |  |  |
| --- | --- | --- |
| **Author, Title** | **Year** | **Reason for exclusion** |
| Alanís, S.E., J. Meijerink, and L. Vega-Franco, Dietary fiber in the medical treatment in various pediatric problems. Boletin medico del Hospital Infantil de Mexico, 1983. 40(2): p. 67-71. | 1983 | Treatment. Review. Spanish |
| Basturk, A., R. Artan, and A. Yilmaz, Efficacy of synbiotic, probiotic, and prebiotic treatments for irritable bowel syndrome in children: a randomized controlled trial. Journal of pediatric gastroenterology and nutrition, 2016. 62: p. 421‐. | 2016 | Treatment for IBS. Inulin or probiotic supplements. |
| Becker, M. and R. Rosskamp, Therapy of constipation with wheat bran in infancy and early childhood. Therapie der Obstipation mit Weizenkleie im Sauglings- und Kleinkindesalter., 1987. 135(8): p. 522-524. | 1987 | Treatment for constipation (but does look at iron status too) |
| Buyken, A.E., et al., Relation of dietary glycemic index, glycemic load, added sugar intake, or fiber intake to the development of body composition between ages 2 and 7 y. The American journal of clinical nutrition, 2008. 88(3): p. 755-762. | 2008 | Only BMI and body fat % |
| Castillejo, G., et al., A controlled, randomized, double-blind trial to evaluate the effect of a supplement of cocoa husk that is rich in dietary fiber on colonic transit in constipated pediatric patients. Pediatrics, 2006. 118(3): p. e641-648. | 2006 | Treatment of constipation. Cocoa Husk supplement. |
| Chao, H.C., et al., Cutoff volume of dietary fiber to ameliorate constipation in children. The Journal of pediatrics, 2008. 153(1): p. 45-49. | 2008 | Treatment of constipation.  |
| Davidsson, L., et al., Dietary fiber in weaning cereals: a study of the effect on stool characteristics and absorption of energy, nitrogen, and minerals in healthy infants. Journal of pediatric gastroenterology and nutrition, 1996. 22(2): p. 167-179. | 1996 | <6 months |
| García, C.I.O., B.G. de Luna, and O.T. Reynoso, Dietary and laxative management in pediatric patients with chronic functional constipation without fecal incontinency. Acta Gastroenterologica Latinoamericana, 2017. 47(1): p. 8-13. | 2017 | Treatment of constipation. |
| Inoue, R., et al., Dietary supplementation with partially hydrolyzed guar gum helps improve constipation and gut dysbiosis symptoms and behavioral irritability in children with autism spectrum disorder. Journal of clinical biochemistry and nutrition, 2019. 64(3): p. 217-223. | 2019 | Treatment of constipation, guar gum supplement. |
| Kadim, M., et al., Effect of Supplementation of Zinc, Glutamine, Fiber, and Prebiotics in Presumed Healthy Indonesian Children Aged 1-3 Years. Pediatric gastroenterology, hepatology & nutrition, 2020. 23(4): p. 388-396. | 2020 | Combined Zinc, glutamine, fiber and prebiotics supplement |
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