

Prebiotic *Guide*

Make the connection between
beneficial gut species and the prebiotics
that nurture them.



Match the bacterial species with

Associated with good health

FOS

Fructooligosaccharides

| Species name | Prebiotics to Increase Growth |
|--|-------------------------------|
| <i>Agathobacter faecis</i> | FOS AX RS |
| <i>Agathobacter rectalis</i> | FOS INULIN AX RS |
| <i>Akkermansia muciniphila</i> | FOS PAC |
| <i>Anaerostipes hadrus</i> | FOS INULIN |
| <i>Bifidobacterium adolescentis</i> | FOS INULIN GOS PECTIN AX |
| <i>Bifidobacterium angulatum</i> | FOS GOS |
| <i>Bifidobacterium animalis</i> | FOS INULIN |
| <i>Bifidobacterium bifidum</i> | FOS INULIN GOS |
| <i>Bifidobacterium breve</i> | FOS INULIN GOS PECTIN AX RS |
| <i>Bifidobacterium catenulatum</i> | FOS GOS |
| <i>Bifidobacterium infantis</i> | FOS INULIN GOS AX |
| <i>Bifidobacterium longum</i> | FOS INULIN GOS PECTIN |
| <i>Bifidobacterium pseudocatenulatum</i> | GOS |
| <i>Coprococcus_B comes</i> | FOS INULIN |
| <i>Coprococcus eutactus</i> | FOS INULIN |
| <i>Faecalibacterium prausnitzii_A</i> | FOS INULIN PECTIN |
| <i>Faecalibacterium prausnitzii_C</i> | FOS INULIN PECTIN |
| <i>Lactobacillus gasseri</i> | GOS PECTIN |
| <i>Roseburia hominis</i> | FOS AX |
| <i>Roseburia intestinalis</i> | FOS AX RS |
| <i>Roseburia inulinivorans</i> | FOS INULIN RS |
| <i>Ruminococcus_E bromii</i> | GOS RS |

| | |
|---------------------------------|---------|
| Asparagus | ■ ■ |
| Beetroots | ■ ■ ■ |
| Blueberries | ■ ■ ■ |
| Bran, wheat | ■ ■ ■ ■ |
| Bread, pumpernickel | ■ ■ ■ |
| Bread, wholemeal | ■ ■ ■ ■ |
| Breakfast cereals (bran-based) | ■ ■ ■ |
| Brussels sprouts | ■ |
| Butter beans | ■ ■ |
| Cashews | ■ ■ ■ |
| Chicory root | ■ ■ |
| Fennel bulb | ■ |
| Garlic | ■ ■ |
| Leeks | ■ ■ |
| Lentils, red | ■ ■ |
| Mulberries | ■ |
| Nectarines | ■ |
| Onions | ■ ■ |
| Pistachios | ■ ■ ■ |
| Raspberries | ■ ■ |
| Red kidney beans | ■ ■ ■ |
| Rye | ■ ■ ■ ■ |
| Rye crispbreads e.g Ryvita | ■ ■ |
| Shallots (little onions) | ■ ■ |
| Snow peas | ■ |
| Spring onions (green and white) | ■ |
| Watermelons | ■ |

Associated with poor health

| Species name | Prebiotics and dietary changes to inhibit growth |
|--------------------------------|--|
| <i>Bilophila wadsworthia</i> | INULIN, REDUCE SATURATED FAT |
| <i>Fusobacterium nucleatum</i> | FLAVONOIDS |

with their *prebiotic source*

INULIN

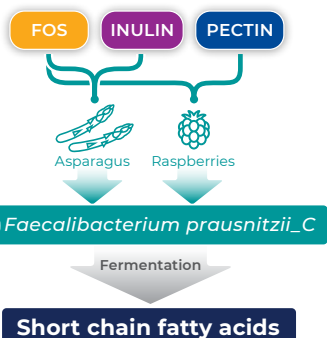
GOS

Galactooligosaccharides

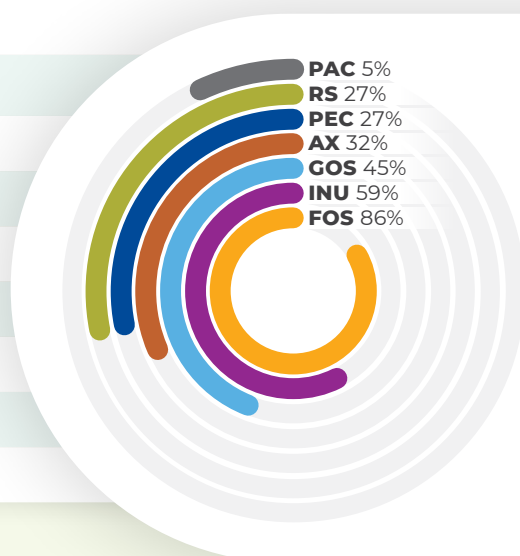
PECTIN

| | | | | | |
|--|---------|--------------------------------------|---------|-----------------------------------|---------|
| Asparagus | ■ ■ | Beetroots | ■ ■ ■ | Apples | ■ |
| Bananas, dried | ■ ■ | Black beans | ■ | Apricots | ■ |
| Bananas, slightly green | ■ ■ | Borlotti beans | ■ | Bananas, slightly green | ■ ■ |
| Barley | ■ ■ ■ | Bran, wheat | ■ ■ ■ ■ | Bananas, dried | ■ ■ |
| Barleymax | ■ ■ ■ | Bread, pumpernickel | ■ ■ ■ | Bananas, ripe | ■ ■ |
| Bran, wheat | ■ ■ ■ ■ | Bread, rye | ■ ■ ■ | Beetroots | ■ ■ ■ |
| Breakfast cereals (corn-based) | ■ ■ ■ ■ | Bread, whole grain | ■ ■ ■ | Blackberries | ■ |
| Chicory root | ■ ■ | Bread, wholemeal | ■ ■ ■ ■ | Blueberries | ■ ■ ■ |
| Garlic | ■ ■ | Breakfast cereals (bran-based) | ■ ■ ■ | Breakfast cereals (corn-based) | ■ ■ ■ ■ |
| Globe artichokes | ■ ■ | Breakfast cereals (mixed-grain) | ■ ■ | Butternut pumpkin (Winter squash) | ■ ■ |
| Grapefruits | ■ ■ | Breakfast cereals (wholegrain wheat) | ■ ■ | Cabbage, common | ■ |
| Jerusalem artichokes | ■ | Butter beans | ■ ■ | Carrots, raw | ■ |
| Leeks | ■ ■ | Butternut pumpkin (Winter squash) | ■ ■ | Eggplants | ■ |
| Onions | ■ ■ | Cashews | ■ ■ ■ | Globe artichokes | ■ ■ |
| Pasta salad e.g. (cooked & cooled overnight) | ■ ■ ■ | Chickpeas | ■ ■ | Grapefruits | ■ ■ |
| Pasta, whole wheat | ■ ■ | Green peas | ■ ■ | Green beans | ■ |
| Peaches, white | ■ ■ | Haricot beans | ■ | Green peas | ■ ■ |
| Shallots (little onions) | ■ ■ | Lentils, green | ■ ■ ■ | Jerusalem artichokes | ■ |
| Whole wheat | ■ ■ ■ ■ | Lentils, red | ■ ■ | Kiwifruit | ■ |
| | | Lima beans | ■ | Lemons | ■ |
| | | Muesli, untoasted | ■ | Lentils, green | ■ ■ ■ |
| | | Mung beans | ■ | Oranges | ■ |
| | | Pinto beans | ■ | Peaches, white | ■ ■ |
| | | Pistachios | ■ ■ ■ | Pears | ■ |
| | | Quick oats | ■ ■ | Plums | ■ ■ |
| | | Red kidney beans | ■ ■ ■ | Potatoes | ■ |
| | | Rye | ■ ■ ■ ■ | Pumpkin | ■ |
| | | Soy beans | ■ | Raspberries | ■ ■ |
| | | Spelt | ■ | Strawberries | ■ ■ |
| | | Split peas | ■ | Sugar snap peas | ■ |
| | | White beans | ■ ■ | Sweet potatoes | ■ ■ |
| | | Whole wheat | ■ ■ ■ ■ | Tomatoes | ■ |
| | | | | Zucchini (Summer squash) | ■ |

Metabolism of prebiotics



| AX | Arabinoxylan | RS | Resistant starch | PAC | Proanthocyanidin |
|--|--------------|---|------------------|---------------------------------------|------------------|
| Almonds | ■ ■ | Bananas, slightly green | ■ ■ | Almonds | ■ ■ |
| Bamboo shoots | ■ | Barley | ■ ■ ■ | Blueberries | ■ ■ ■ |
| Barley | ■ ■ ■ | Barleymax | ■ ■ ■ | Chocolate dark (min 80% cocoa solids) | ■ |
| Barleymax | ■ ■ ■ | Bread, pumpernickel | ■ ■ ■ | Cinnamon | ■ |
| Bran, wheat | ■ ■ ■ ■ | Bread, rye | ■ ■ ■ | Cranberries | ■ |
| Bread, rye | ■ ■ ■ | Bread, whole grain | ■ ■ ■ | Hazelnuts | ■ ■ |
| Bread, whole grain | ■ ■ ■ | Bread, wholemeal | ■ ■ ■ ■ | Peanuts | ■ |
| Bread, wholemeal | ■ ■ ■ ■ | Breakfast cereals (corn-based) | ■ ■ ■ ■ | Pecans | ■ |
| Breakfast cereals (bran-based) | ■ ■ ■ | Cashews | ■ ■ ■ | Pistachios | ■ ■ ■ |
| Breakfast cereals (corn-based) | ■ ■ ■ ■ | Cassava root | ■ | Plums | ■ ■ |
| Breakfast cereals (mixed-grain) | ■ ■ | Chickpeas | ■ ■ | Sorghum | ■ ■ ■ |
| Breakfast cereals (wholegrain wheat) | ■ ■ | Lentils, green | ■ ■ ■ | Strawberries | ■ ■ |
| Flaxseed (linseed) | ■ | Pasta salad e.g. (cooked & cooled overnight) | ■ ■ ■ | | |
| Pasta salad e.g. (cooked & cooled overnight) | ■ ■ ■ | Potato salad e.g. (cooked & cooled overnight) | ■ | | |
| Pasta, whole wheat | ■ ■ | Plantains | ■ | | |
| Quick oats | ■ | Red kidney beans | ■ ■ ■ | | |
| Rice, brown | ■ ■ | Rice, brown | ■ ■ | | |
| Rice, white | ■ | Rolled oats | ■ | | |
| Rolled oats | ■ ■ | Rye | ■ ■ ■ ■ | | |
| Rye | ■ ■ ■ ■ | Sorghum | ■ ■ ■ ■ | | |
| Rye crispbreads e.g Ryvita | ■ ■ | Sweet potatoes | ■ ■ | | |
| Sorghum | ■ ■ ■ ■ | Taro root | ■ | | |
| Whole wheat | ■ ■ ■ ■ | White beans | ■ ■ ■ | | |
| | | Whole wheat | ■ ■ ■ ■ | | |



FOS
are the most common prebiotic fuel sources for the majority of beneficial species.

MICROBIOMIX™

Discover your patient's unique prebiotic food sources. Explore how their gut microbiome may be affecting their health with the **GI Effects with Microbiomix™** gut microbiome analysis.



Research indicates that diets supporting low fiber consumption and excess protein consumption can shift the proportion of the gut microbiome to be in favor of protein-digesting species^{1,2}. In some cases, these species can release pro-inflammatory compounds, such as lipopolysaccharides¹, which promote negative health effects, including gut inflammation and chronic health issues.

The gut microbiome contains both fiber and protein-digesting microbial species. This prebiotic guide will help make the connection between beneficial microbes and the prebiotics which encourage their growth to best produce health-promoting SCFAs.

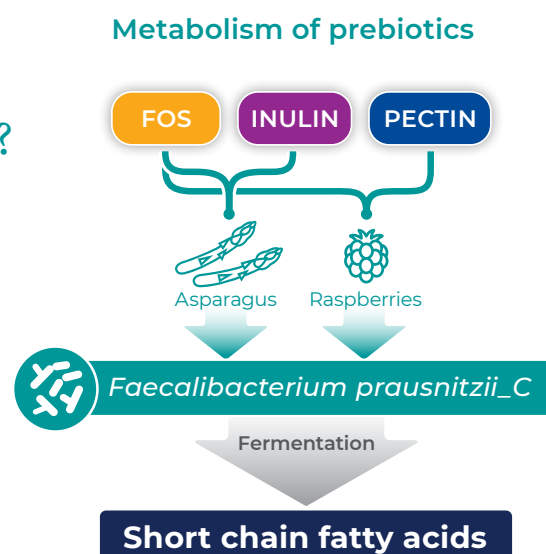
To maintain a healthy balance of microbial species and production of inflammation-suppressing compounds, such as short chain fatty acids (SCFAs)³, a high intake of prebiotics and plant-based fibers is shown to be the best course of action.

What's on the menu for *Faecalibacterium prausnitzii_C*?

FOS (Fructooligosaccharides): Pistachios, Pumpnickel Bread, Red Lentils

INULIN: Barley, Whole Wheat Pasta, Ripe Bananas

PECTIN: Butternut Pumpkin, Green Peas, Sweet Potatoes



1. Vich Vila, A. Imhann, F. Jankipersadsing, S.A. Gurry, T., Mujadic, Z. Gut microbiota composition and functional changes in inflammatory bowel disease and irritable bowel syndrome. Science Translational Medicine, 10 (472)(2018). Doi:10. 1126/scitranslmed.aap8914
2. He, Q., Gao, Y., Jie, Z. Yu, X. Laursen, J.M. Two distinct metacommunities characterize the gut microbiota in Crohn's disease patients.
3. Singh, R. K. et al. Influence of diet on the gut microbiome and implications for human health. J. Transl. Med. 15, 73 (2017).



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