

MAXFIBE SACHETS: The Natural Fiber Helps in Activation of Immune System

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ABSTRACT

A prebiotic is defined as “a nondigestible food ingredient that beneficially affects the host by selectively stimulating the growth and/or activity of one or a limited number of bacteria in the colon” Modification by prebiotics of the composition of the colonic microflora leads to the predominance of a few of the potentially health-promoting bacteria. The scientific data showing that prebiotics may positively affect various physiologic functions in ways that will permit them now or in the future to be classified as functional foods for which health claims (of enhanced function or of reduction in disease risk) will be authorized. The present paper Reviews the Role of Maxfibe Sachets developed by R&D cell of Lactonova Nutripharm Pvt Ltd. Hyderabad.

Keywords: Probiotic, Prebiotic, Maxfibe Sachets.

INTRODUCTION

Prebiotics are non-digestible food ingredients that stimulate the growth and/or activity of bacteria in the digestive system in ways claimed to be beneficial to health. They were first identified and named by Marcel Roberfroid in 1995 [1]. As a functional food component, prebiotics, like probiotics, are conceptually intermediate between foods and drugs. Depending on the jurisdiction, they typically receive an intermediate level of regulatory scrutiny, in particular of the health claims made concerning them.

Typically, prebiotics are carbohydrates (such as oligosaccharides), but the definition may include non-carbohydrates. The most prevalent forms of prebiotics are nutritionally classed as soluble fiber. To some extent, many forms of dietary fiber exhibit some level of prebiotic effect.

Roberfroid offered a refined definition in the 2007 Journal of Nutrition [2] stating:

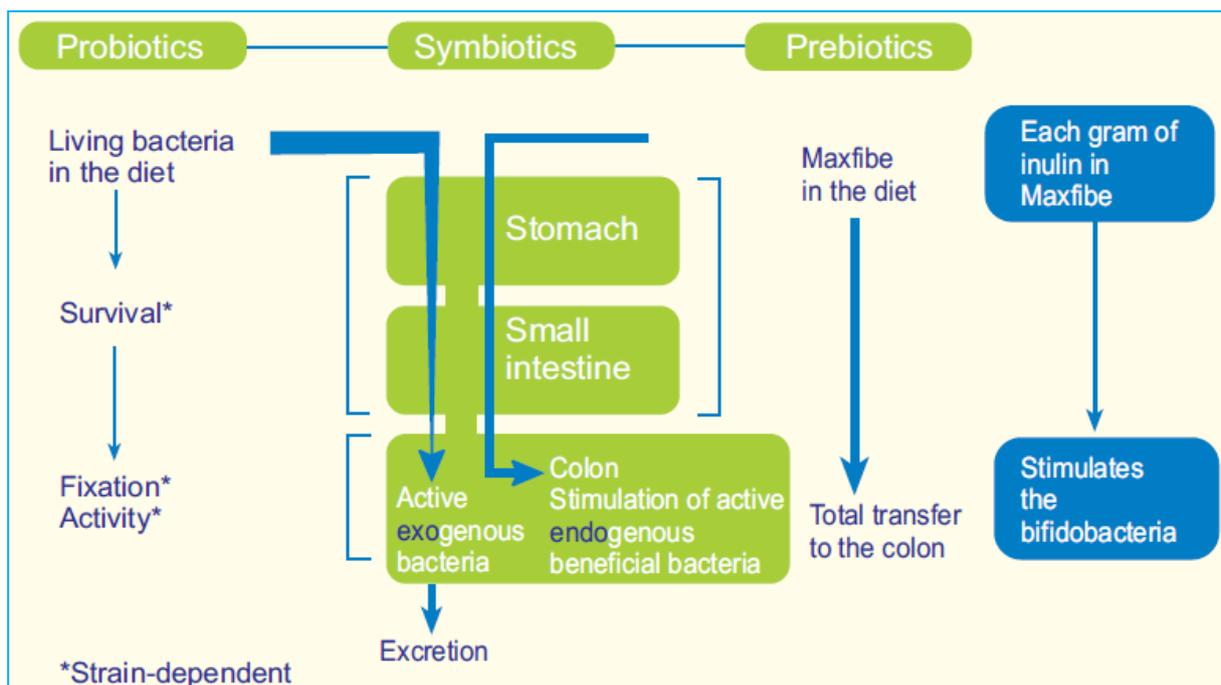
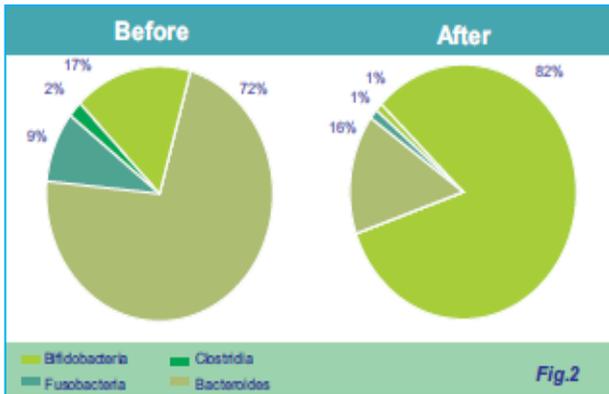


Fig.1 Physiological Action of Maxfibe Sachets

"A prebiotic is a selectively fermented ingredient that allows specific changes, both in the composition and/or activity in the gastrointestinal microflora that confers benefits upon host well-being and health."

Additionally, in his 2007 revisit of Prebiotics, Roberfroid stated that only two particular fructooligosaccharides fully meet this definition: oligofructose and inulin [3]. Other authorities also classify galactooligosaccharides (GOS) as prebiotics. Mannan Oligosaccharides (MOS) have been termed as prebiotics but would more correctly be termed immunosaccharides

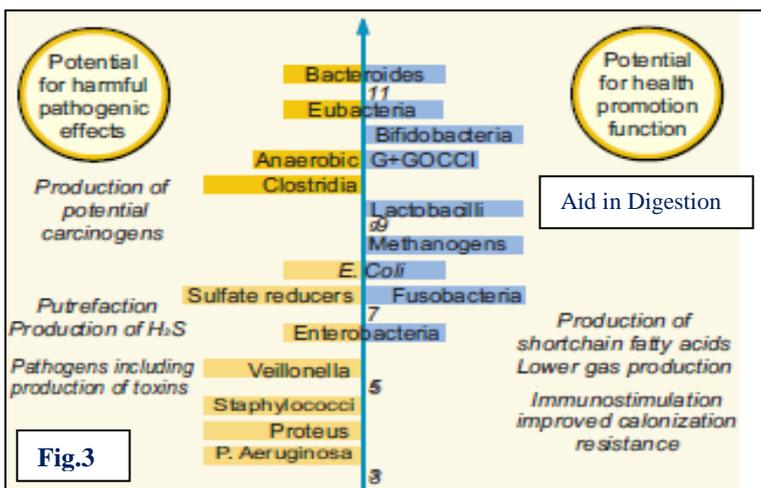


Researchers now also focus on the distinction between short-chain, long-chain, and full-spectrum prebiotics. "short-chain" prebiotics, e.g. oligofructose, contain 2-8 links per saccharide molecule, are typically fermented more quickly in the right-side of the colon providing nourishment to the bacteria in that area. Longer-chain prebiotics, e.g. Inulin, contain 9-64 links per saccharide molecule, and tend to be fermented more slowly, nourishing bacteria

predominantly in the left-side colon. Full-spectrum prebiotics provide the full range of molecular link-lengths from 2-64 links per molecule, and nourish bacteria throughout the colon, e.g. Oligofructose-Enriched Inulin (OEI). The majority of research done on prebiotics is based on full-spectrum prebiotics, typically using OEI as the research substance [4][5][6][7][8].

Function

The prebiotic definition does not emphasize a specific bacterial group. Generally, however, it is assumed that a



prebiotic should increase the number and/or activity of bifidobacteria and lactic acid bacteria. The importance of the bifidobacteria and the lactic acid bacteria (AKA lactobacillus or LABs) is that these groups of bacteria have several beneficial effects on the host, especially in terms of improving digestion (including enhancing mineral absorption [9]) and the effectiveness and intrinsic strength of the immune system [10]. A product that

stimulates bifidobacteria is considered a bifidogenic factor. Some prebiotics may thus also act as a bifidogenic factor and vice versa, but the two concepts are not identical [11].

Sources

Traditional dietary sources of prebiotics include soybeans, inulin sources (such as Jerusalem artichoke, jicama, and chicory root), raw oats, unrefined wheat, unrefined barley and yacon. Some of the oligosaccharides that naturally

occur in breast milk are believed to play an important role in the development of a healthy immune system in infants. It is becoming more common to properly distinguish between prebiotic substances and the food that contains them.

References to almonds, honey and other foods (most commonly in promotional materials from growers of those foods) as "a prebiotic" are not accurate. No plant or food is a prebiotic: Wheat, honey and many other foods contain prebiotics to a greater or lesser extent, ranging from fairly large portions (chicory root, Jerusalem artichoke) to only trace quantities (thousands of other plant-based foods). Referring to a food as "a prebiotic" is no more accurate than calling a food "a vitamin."

Genetically engineering plants for the production of inulins has also become more prevalent [13][14], despite the still limited insight into the immunological mechanisms activated by such food supplementation [15].

Effects

Studies have demonstrated positive effects on calcium and other mineral absorption,[16] immune system effectiveness [17], bowel pH, reduction of colorectal cancer risk,[18] inflammatory bowel disorders (Crohn's Disease and Ulcerative Colitis)[19] Hypertension (high blood pressure) [20] and Recent human trials have reinforced the role of Prebiotics in preventing and possibly stopping early stage colon cancer [21].

It has been argued that many of these health effects emanate from increased production of short-chain fatty acids (SCFA) by the stimulated beneficial bacteria. Thus food supplements specifically enhancing the growth of SCFA producing intestinal bacteria (such as clostridia and bacteroides species) are widely recognized to be beneficial.

While research does clearly demonstrate that prebiotics lead to increased production of these SCFA's [22], more research is required to establish a direct causal connection. It has been argued that prebiotics are beneficial to Crohn's Disease through production of SCFAs to nourish the colon walls, and beneficial to Ulcerative Colitis through reduction of Hydrogen Sulfide gas due to reduction of sulfate-producing bacteria, which do not thrive in the slightly acidic environment SCFAs create.

The immediate addition of substantial quantities of prebiotics to the diet may result in a temporary increase in gas, bloating or bowel movement. It has been argued that chronically low consumption of prebiotic-containing foods in the typical Western diet may exaggerate this effect.

Human colonic bacteria substrates are relatively stable. Production of SCFA and fermentation quality is reduced during long-term diets of low fiber intake [23]. Until bacterial flora are gradually established to habituate or restore intestinal tone, nutrient absorption will be impaired and colonic transit time temporarily increased with an immediate addition of higher prebiotic intake [24].

MAXFIBE, the invisible natural fiber

MAXFIBE, the invisible natural fiber contains Raftiline ST (Inulin 5gms)-A prebiotic non-digestible food ingredients that beneficially affects the host by selectively stimulating the growth of beneficial microflora.

Maxfibe offers following Benefits

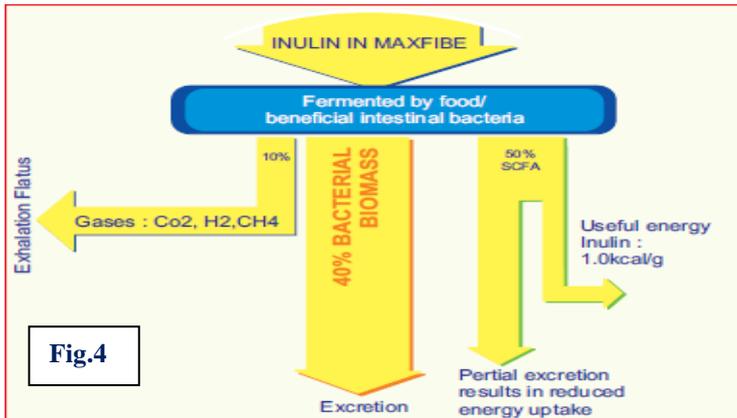


Fig.4

- ✎ Soluble dietary fiber: Anticonstipation, PH reduction, cholesterol & triglyceride reduction.
- ✎ Diabetic friendly: glycemic index zero, no influence on blood glucose.
- ✎ Low calorie: 1kcal/gm & undigestible.
- ✎ Stimulates bfidus: preferred food for bfidobacteria with benefits of inhibition of other harmful bacteria, reduction in toxins & carcinogens, activation of immune system, synthesis of vitamins, improved mineral absorption.



Fig.5

PHARMACOLOGY

Prebiotics are non-digestible food ingredients that stimulate the growth and/or activity of bacteria in the digestive system in ways claimed to be beneficial to health. Studies have demonstrated positive effects on calcium and other mineral absorption, immune system effectiveness, bowel pH, reduction of colorectal cancer risk, inflammatory bowel disorders (Crohn's Disease and Ulcerative Colitis) Hypertension (high blood pressure) and intestinal regularity.

Recent human trials have reinforced the role of Prebiotics in preventing and possibly stopping early stage colon cancer.

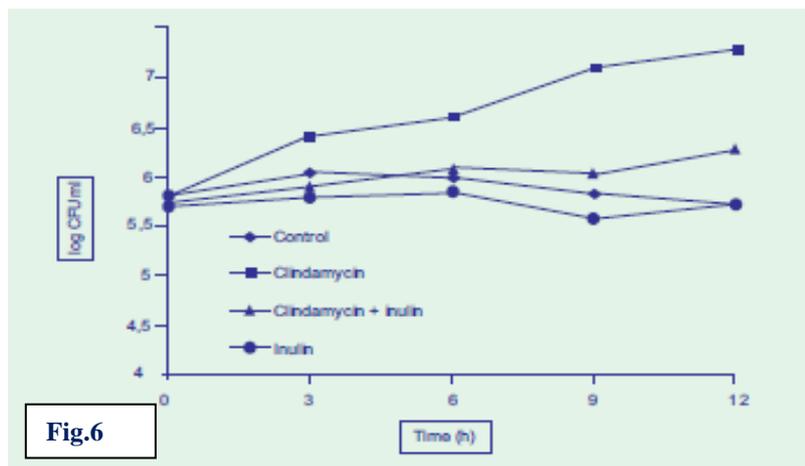
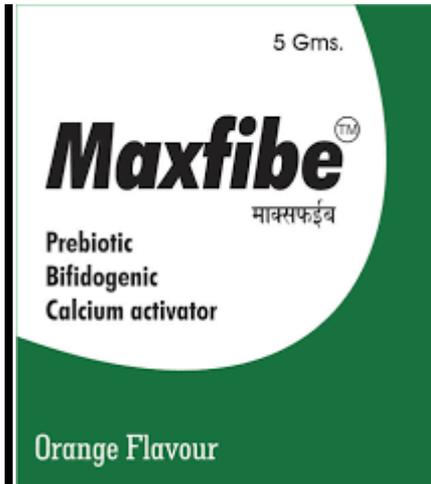


Fig.6

COMPOSITION



MAXFIBE, the invisible natural fiber contains-

Raftiline ST (Inulin 5gms)

DOSAGE

5gms per/day with milk or water.

INDICATIONS

- ✕ Anticonstipation,
- ✕ PH reduction,
- ✕ Cholesterol & triglyceride reduction
- ✕ Diabetic friendly
- ✕ Preferred food for bifidobacteria
- ✕ Inhibition of harmful bacteria
- ✕ Reduction in toxins & carcinogens
- ✕ Activation of immune system
- ✕ Synthesis of vitamins,
- ✕ Improves mineral absorption.

PACK

5 gm sachet x10

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