

FiboFit

Wheat Dextrin Powder



FIBOFIT IS Water soluble fiber

Table of nutritional value

Ingredients	Per Serving 8 g (1Sachet)	100 g	%W/W
Wheat Dextrin	8 g	100 g	100 %
Energy	0.096 kcal	1.2 kcal	
Fats & Its Derinatives	0.008 g	0.1 g	
Protein	0.008 g	0.1 g	
Carbohydrates	0 g	0 g	
Excipients	q.s.	q.s.	

Fiber provides many health benefits. Here's how to fit more into your diet.

- Fiber provides many health benefits. Here's how to fit more into your diet.

- Benefits of a high-fiber diet

A high-fiber diet has many benefits, which include:

- Lowers cholesterol levels Soluble fiber may help lower total blood cholesterol levels by lowering low-density lipoprotein, or "bad," cholesterol levels. Studies also have shown that fiber may have other heart-health benefits, such as reducing blood pressure and inflammation.
- Helps control blood sugar levels In people with diabetes, fiber — particularly soluble fiber — can slow the absorption of sugar and help improve blood sugar levels..
- Aids in achieving healthy weight High-fiber foods generally require more chewing time, which gives your body time to register when you're no longer hungry, so you're less likely to overeat. Also, a high-fiber diet tends to make a meal feel larger and linger longer, so you stay full for a greater amount of time. And high-fiber diets also tend to be less "energy dense," which means they have fewer calories for the same volume of food.
- Normalizes bowel movements Dietary fiber increases the weight and size of your stool and softens it. A bulky stool is easier to pass, decreasing your chance of constipation. If you have loose, watery stools, fiber may also help to solidify the stool because it absorbs water and adds bulk to stool.



FiboFit

Wheat Dextrin Powder

Effects Of FiboFit On The Parameters Involved In The Metabolic Syndrome

RESULTS

Statistical methodology:

Statistical Methodology:

- 1. p-value for each group (in blue and orange): Significance of global changes over the study period within each group
- 2. p-value between the groups (in green): Significance of the global change observed in NUTRIOSE group by comparison to the global change observed in the placebo group

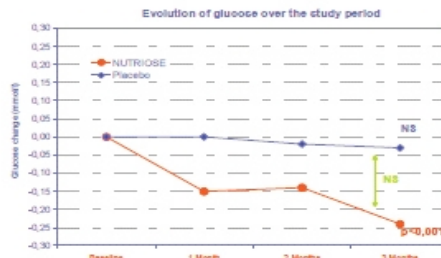
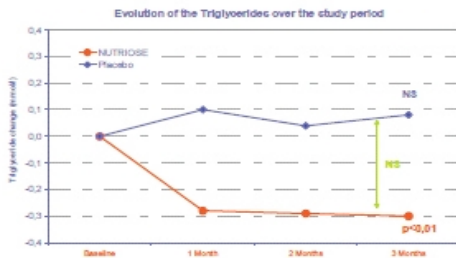
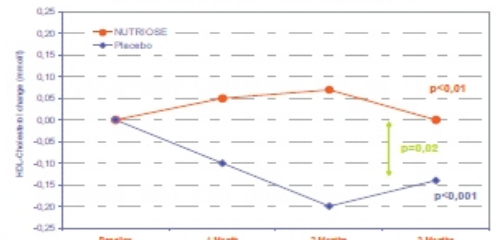
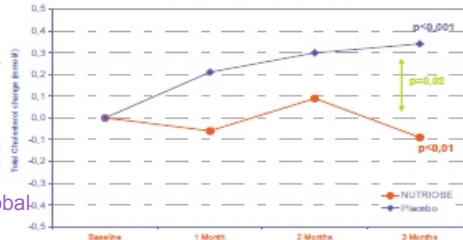


Table 1: Percentage of volunteers who experienced a 5% improvement from the beginning to the end of the study

Parameters	Wheat dextrin powder	Placebo
Adiponectin	57%*	35%
Glucose	25%*	17%
Insulin	57%*	22%
Total-cholesterol	22%*	8%
HDL-cholesterol	43%***	8%
LDL-cholesterol	36%*	15%
VLDL-cholesterol	52%*	28%
Triglyceride	45%**	17%
Glycosylated Hemoglobin	27%*	25%
Glycated Albumin	32%*	13%

*p<0.05, **p<0.01, ***p<0.001

• **Lipid metabolism** In the Wheat dextrin powder group, the plasmatic concentrations decrease for total-cholesterol (p<0.01), for LDL-cholesterol (p<0.01) (data not shown), and increase for HDL-cholesterol (p<0.01). These changes are significantly different of those observed in the placebo group. The VLDL-cholesterol (data not shown) and the triglycerides concentrations decrease also in the wheat dextrin powder group (p<0.01) but these changes are not different from those observed in the placebo group.

• **Glucose metabolism** Test subjects demonstrate significant reduction in plasmatic concentrations of glucose (p<0.01) and insulin (data not shown) although these changes are not significantly different from those observed with the placebo. Intermediate and long-term glucose control, measured by glycated albumin and glycosylated hemoglobin, improve over time in the wheat dextrin powder group (data not shown). Adiponectin, cytokine which regulates glucose metabolism and stimulates fatty acid oxidation, increases in the wheat dextrin powder group (p<0.01) (data not shown).

• The table 1 details the percentage of volunteers who experienced a 5% improvement from the beginning to the end of the study in each group. It shows that the wheat dextrin powder largely improves the biological parameters involved in the metabolic syndrome.

• **Prevalence of metabolic syndrome (MS)** Before the supplementation, 27% of the volunteers of the

• The table 1 details the percentage of volunteers who experienced a 5% improvement from the beginning to the end of the study in each group. It shows that the wheat dextrin powder largely improves the biological parameters involved in the metabolic syndrome. group presented MS and only 12% after the 3-month period. Before the supplementation, 17% of the volunteers of the placebo group presented MS and it increase to 27% after the 3-month period.

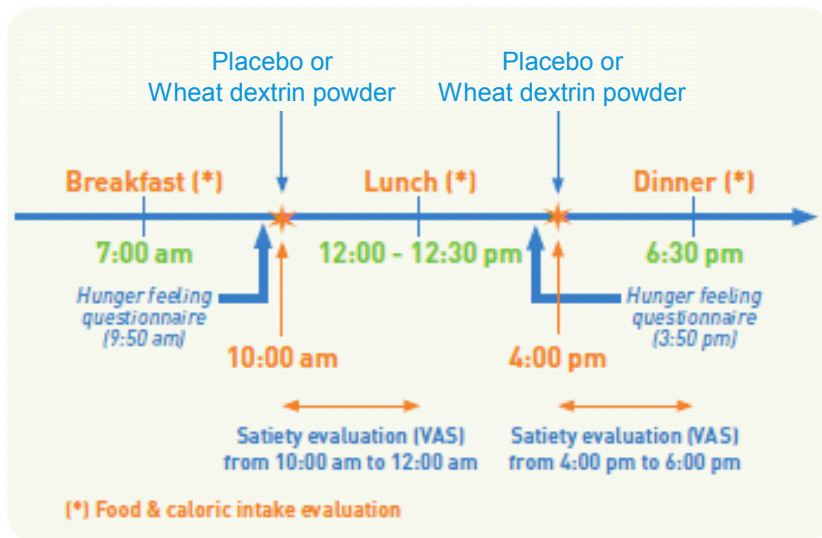
FiboFit

Wheat Dextrin Powder

Conclusion

Twice daily supplementation with NUTRIOSE[®] over a 3-month period improves the lipid and glucose metabolism of slightly overweight Chinese volunteers. This study has shown that the metabolic syndrome status of the volunteers is largely improved with Wheat dextrin powder.

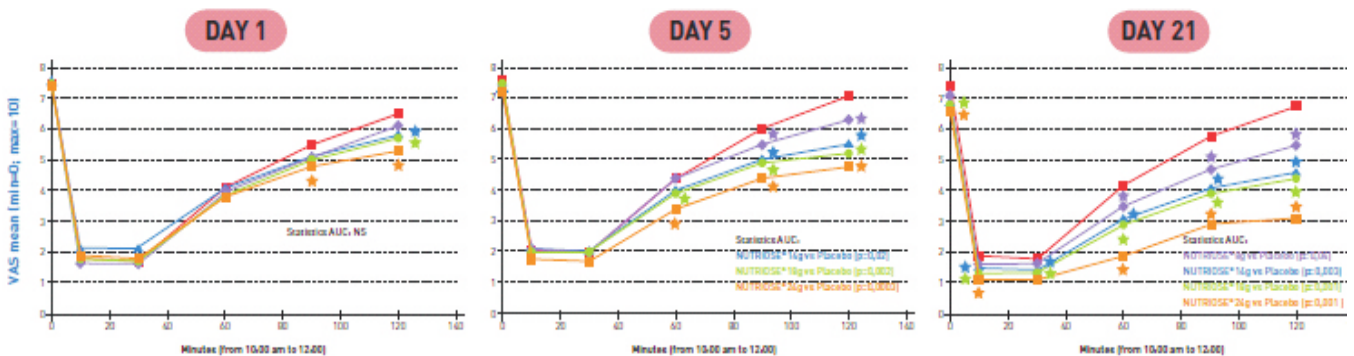
Daily schedule



DOSE - RESPONSE IMPACT OF FIBOFIT ON SATIETY AND WEIGHT MANAGEMENT

Satiety evaluation

“How hungry do you feel?”
VAS evaluation in the morning

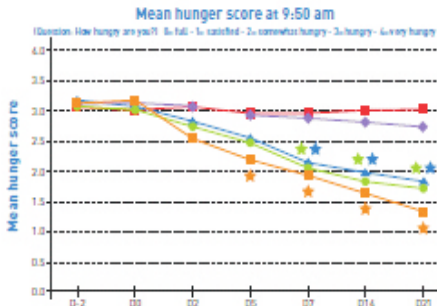


During the study Wheat dextrin powder exhibits a progressive and significant impact on short-term satiety [see figures 1,2 and 3]. This effect is time correlated, the impact on satiety becoming visible earlier while progressing in the trial and increasing in value from day 0 to day 21. Be that as it may, some statistical differences appear for the 8g/d group from Day 5. Moreover, this effect is also correlated to the ingested dose, the significance increasing with the dosage.

FiboFit

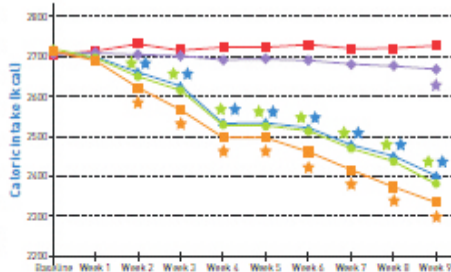
Wheat Dextrin Powder

Hunger evaluation



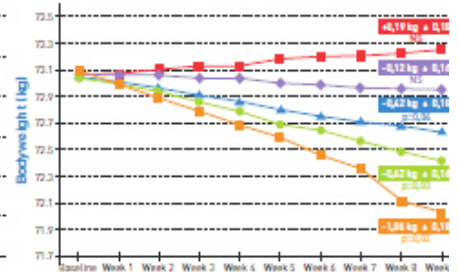
The hunger feeling status decreases over the study; this decrease is significant from Day 5 to the end of the evaluation for the group 24g and from Day 7 for the group 14g and 18g. The number of volunteers who are not hungry increases during the study [data not shown]

Total caloric intake per day



There is a significant decrease in caloric intake [and in food intake - data not shown] correlated with the decrease in hunger, from week 2 to the end of the study for the groups 14g, 18g and 24g. Wheat dextrin powder and at week 9 for the group 8g of Wheat dextrin powder.

Body weight



As a consequence, wheat dextrin powder intake induces strong and prolonged impact on weight management. The decrease observed from baseline to the end is significant for the group 14g, 24g, day. In the meantime BMI, body mass index and waist circumference display significant decreases [not shown] for the 3 groups. For each of the tested parameters, the results are also dose-correlated.

- Wheat dextrin powder a non soluble fibre, has previously demonstrated a positive impact on weight management in a 12-week dietary intervention in 120 healthy overweight Chinese men at a daily dosage of 34 g. In this second study, wheat dextrin powder displays significant time and dose-related effects on short-term satiety (from day 5 at 8 g/day), hunger feeling (from day 5 at 24 g and day 7 at 14g/day) food and caloric intakes (from day 21 at 14 g/day)
- Several hypotheses may be formulated. The modulation of the microbial ratios in the gut flora composition may firstly enlighten these results [2,3]. Moreover, the slow and prolonged production of short chain fatty acids [SCFAs] along the colon may provide long energy and delay or reduce hunger feeling. Finally, due to its fermentation pattern described in vitro as long-lasting and producing high propionate concentrations from 8 to 24 hours [4], it is also in line with some described role of SCFAs, such as:
 - butyrate may promote satiety [5] and have a direct effect on afferent terminals in rats [6];
 - the pattern of fermentation, mostly the ratio of acetate to propionate reaching the liver, is a putative intermediate marker possibly predicting the potential lipid lowering properties of non-digestible carbohydrates.
 - the classical deleterious role attributed to acetate as a precursor of lipogenesis might be modulated [7]
- Finally, the results of this second study bring additional evidence to the fact that wheat dextrin powder may be a useful tool in the modulation of satiety from 8-14g/day, and in weight management from 14g/day.

Prebiotic effects of NUTRIOSE

A significant increase in the saccharolytic flora bacteroides (beneficial bacteria) in the feces of human volunteers

after a 14-d consumption of 10g wheat dextrin powder (study #1) - figure 1
after a 14-d consumption of 8g wheat dextrin powder (study #2) - figure 2

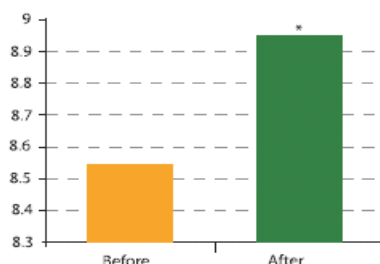


figure 1: bacteroides before and after a 14-days consumption of 10g/d nutrio (study#1) *p<0,05

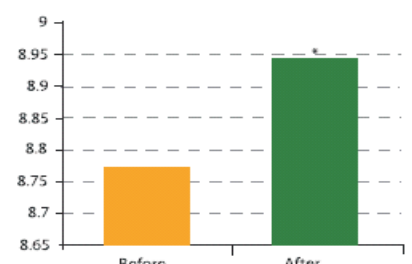


figure 2: bacteroides before and after a 14-day consumption of 8g/d nutrio (study#2)

FiboFit

Wheat Dextrin Powder

A significant increase in the mean lactobacilli number (beneficial bacteria) in the feces of human volunteers

after a 35-d consumption of 45g wheat dextrin powder (study #3) -figure 3

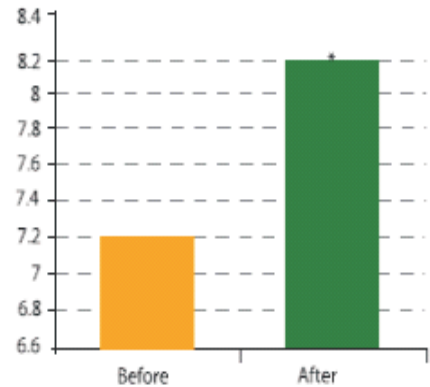


figure 3: lactobacilli before and after a 35-day consumption of 45g/d wheat dextrin powder(study #3)
*:p<0,05

A significant decrease in the genus Clostridium perfringens (potentially harmful bacteria) in the feces of human volunteers

-after a 14-d consumption of 15g wheat dextrin powder (study #1) -figure 4
-after a 14-d consumption of 15g wheat dextrin powder (study #2) -figure 5
-confirmed in study #3

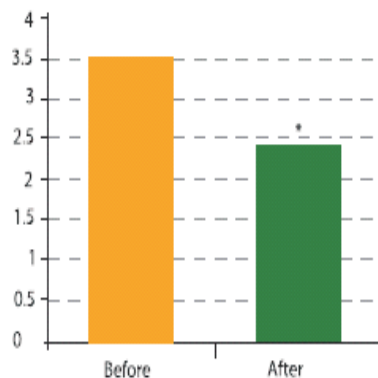


figure4: clostridium perfringens before and after a 14-day consumption of 15g/d wheat dextrin powder *(study#1)
*:p<0,05

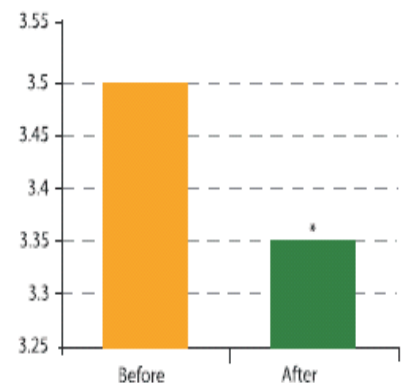


figure 5 : clostridium perfringens before and after a 14-day consumption of 8g/d wheat dextrin powder *(study#2)
*:p<0,05

Wheat dextrin powder * has positive effects because it stimulates the proliferation of bacteroids (a colonic bacteria able to adapt to non-digestible carbohydrates) and the proliferation of lactobacilli (classified as desirable colonic bacteria). wheat dextrin powder * also decrease clostridium perfringens, a potentially harmful gram-negative bacteria

These changes in the gut microflora following wheat dextrin powder* consumption are associated with the production of SCFAs, a decrease in the colonic pH and an increase in the fecal enzyme concentration (1,2,3) moreover preclinical studies have shown the potential beneficial role of wheat dextrin powder * in the regulation of the visceral pain, in the regulation of the colonic inflammation and in the regulation of immunity @.

All these colonic effects are key criterias to allow making the link between wheat dextrin powder properties and a recent definition of a prebiotic proposed by FAO in 2007 @ a non-viable food component that confers a health benefit on the host associated with modulation .

How much fiber do you need?

- The Institute of Medicine, which provides science-based advice on matters of medicine and health, gives the following daily recommendations for adults



	Age 50 or younger	Age 51 or older
Man	38 grams	30 grams
Woman	25 grams	21 grams

Ref: Institute of Medicine, 2012

FiboFit

Wheat Dextrin Powder



- Promotes Weight Management.
- Prevents Diabetes.
- Cholesterol-lowering Effect.
- Promotes Digestive Health

Cell : 81081216141 / 2 / 4 / 5