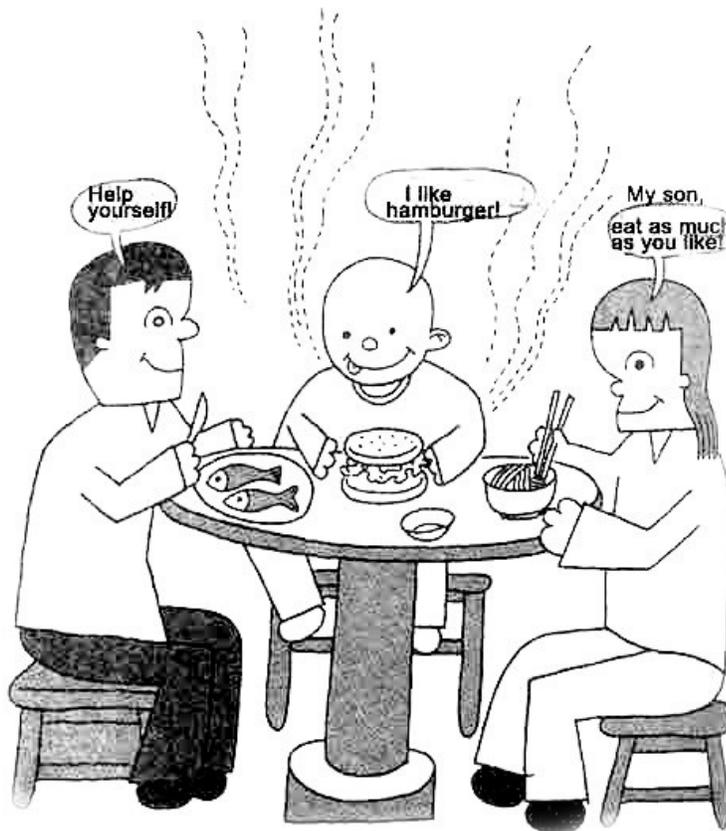


## CHAPTER FIVE

### THE DIETETICS FOR THE COMFORT INSIDE THE INTESTINES

1. **Problems** brought about by monophagia
2. **How** the village of long life turned into one of short life
3. **Establishing** a scientific dietary style
4. **Whether** the lactobacterial products are beneficial to the body or not
5. **Eating** wisely + keeping fit = "an intestinal beauty"
6. **The** various soy oligosaccharide products
7. **The** daily eating methods
8. **The** proper intake amount of soy oligosaccharide
9. **May** be taken by diabetic patients assuredly



**Sitting round the dining table, the father takes roast fish while the child has the hamburger, each eating what he likes . Families of this type are on the increase now.**

#### **PROBLEMS BROUGHT ABOUT BY MONOPHAGIA**

Nowadays, Japan is commonly considered rich in the world, with its economic scale amounting to 60 % of the United States' and its per capita national income even surpassing that of the United States. Once you enter western-style restaurants, French food, Italian food, Chinese food and other foods from all over the world are available. In recent years, it has become a fashion to dine in a western-style restaurant.

With the development of economy, everything may be available, thus bringing about the tendency of eating only what one likes. The same tendency may also be found at home: sitting round the dining table, the father takes roast fish while the child has the hamburger, each eating what he likes. Families of this type are on the increase.

The disadvantages brought about by the dietary habit (monophagia) with emphasis on addiction have posed serious problems. For instance, the partiality for high-calorie and high-fat foods leads to the over intake of calorie and the imbalance of nutrition, which causes the increase in the "rich man's diseases". This is the most typical example.

In addition, high-protein and high-fat foods may bring about the increase in protein and fat in the large intestine, providing conditions for activating the harmful bacteria that produce carcinogens. The cancer of the large intestine seldom found before in Japan is now on the increase, which is commonly considered by experts the result of the American-European style diet with high-protein and high-fat partialities.

Indulging partialities is harmful to the health though enjoying food is very important. It is quite necessary for us to further study this fundamental rule of the nutriology.



**With the changes in the social environment, people's diet has changed as well. It goes without saying that great changes have taken place in the intestinal flora too.**

### **HOW THE VILLAGE OF LONG LIFE TURNED INTO ONE OF SHORT LIFE**

Okahara, Yamanashi is known as an area of longevity. As introduced in Chapter one, I once conducted an investigation into the relationship between longevity and intestinal flora.

Bifidobacteria live in a very active state in the intestines of the macrobian. This has been described before.

We were shocked to find from recent investigation that the middle-aged and old people in the Okahara area who died of the "rich man's diseases" were on the continual increase in recent years.

Dr. Toyosuke Komori in charge of the investigation regarded the change in their dietary style as the chief cause for the rise in mortality.

The diet of the Okahara people in the past was composed of the staple food including 30 % of rice and 70 % of wheat which were mixed and ground into wheat meal, and the non-staple food mainly including chestnut, black soybean, buckwheat flour, konjak, Chinese yam, taro, potato, carrot, pumpkin, kelp, etc. They would eat fish two to three times a month and averagely one egg every three days.

However, the urbanization and modernization tide has surged to Okahara too. Meat and processed food are easily available in the supermarkets. With the changes in the social environment, people's diet has changed as well. The original wheat meal is now replaced with polished white rice, and vegetables in the past have now given way to meat and processed food as the principal non-staple food. It goes without saying that great changes have taken place accordingly in the florae in the intestines

With the decrease in farmers engaged in agriculture, people going out for work or working in factories are on the increase, giving rise to more chances for mental strain. Meanwhile, the popularization of cars and domestic electric appliances also aggravates the tendency of becoming overweight to a certain extent.

As may be considered, it is this factor that causes the increase in the "rich man's diseases" to the Okahara people who used to be proud of their longevity.

## **ESTABLISHING A SCIENTIFIC DIETARY STYLE**

Incomes have great influence on the dietary structure.

Normally speaking, strata with higher incomes take in more animal protein and fat, and more granulated sugar, which form the high-income dietary structure.

Medical and nutriological specialists have taken this as a main subject for study.

Firstly, the excess intake of calorie causes the increase in obese people. The granulated sugar, in particular, after turning into fat, becomes the important factor for obesity. The high cholesterol content in the blood of many of the obese people is the cause of the "rich man's diseases" such as arteriosclerosis, myocardial infarction, cardiac stenosis, cerebral infarction, etc.

Secondly, the high-income dietary structure causes nutritional imbalance. In spite of their rich diet, children with easy fracture and incompatible poor health are on the increase. What's the cause of this? Besides, some of the young women try their utmost to avoid taking oil and meat, thus causing malnutrition and anemia.

How to eat and what to eat have, however, become a very important issue nowadays when whatever you like is available.

The American-European style diet is, by no means, unacceptable. However, there are a lot of things worth studying in the Japanese diet having existed since ancient times. People now eat less and less grains, seaweeds, potatoes and so on, which contain the important nutrients that meat normally lacks.

If what you eat is fine today, it should be a bit coarse tomorrow, or if you eat more today, you should restrain yourself a little tomorrow. In this respect, it is advisable to keep a balance weekly.

Meanwhile, maintaining standard body weight by regularly measuring your weight is also a good way of controlling one's diet.

### **WHETHER LACTOBACTERIAL PRODUCTS ARE BENEFICIAL TO THE BODY OR NOT**

Lactic acid is the hydroxy acid produced while sugar such as glucose, etc. is fermented by lactobacteria. Lactic acid may also be produced when the glycogen in muscle is decomposed. The accumulation of lactic acid in muscle may give rise to fatigue, whilst that in food is otherwise.



### **Yogurt is processed by adding lactobacteria to milk and fermenting it.**

Lactic acid is widely used because of its sourness.

Yogurt, the representative food containing lactic acid is processed by adding lactobacteria to milk and fermenting it. When and where the yogurt was first produced is not clear to us. However, it has, as considered, been used as food since the prehistoric times and seems to have been widely used. People in mid-Asia, Balkan, Egypt, India, etc are now still eating a kind of food known as the prototype of yogurt. According to the records, people in Japan ate something like yogurt as early as from the Asuka Period to the Heian Period.

Maybe the ancient people got to know, through practice, the unique flavor of yogurt, and knew it could be well kept and was beneficial to health. Yogurt in ancient times was made with milk through natural fermentation, whilst the yogurt today is processed with lactobacteria added to milk.

The person who first discovered lactobacterium was Louis Pasteur of France. It was a bit later that we really understood that there also lived in the intestines very useful lactobacteria. The various useful roles of lactobacteria have already been described, which will not be repeated here. The following are some examples of curing diseases with lactic drinks.

1. As reported, a 21- year- old lady was diagnosed to have contracted, at the age of 9, hepatocirrhosis caused by a congenital biliary tract disease. She was asked to drink bifidobacterial milk for two years. As a result, while the intestinal bifidobacteria increased, the harmful ammonia and free phenol in the blood decreased and the conditions of hepatocirrhosis were improved.

2. Bifidobacterial preparations and bifidobacterium-fermented fluids were used for the treatment of children's intractable dysentery, with the result that the disease, unable to be cured with dietary and medicinal therapies, was cured with its symptoms returning to normal. There has been a report to this effect.

Recently, people are considering improving the symptoms of diseases through the bifidobacteria inherent in the body instead of the added bifidobacteria.

Therefore, examples of using soy oligosaccharide, the multiplication factor of bifidobacteria for this purpose, are also increasing remarkably.



**After the bifidobacterial milk was drunk for some years in succession, the intestinal bifidobacteria increased whilst the harmful ammonia and free phenol in the blood decreased**

### **EATING WISELY + KEEPING FIT = "AN INTESTINAL BEAUTY"**

To keep young and beautiful is an eternal subject to women.

With the growth of age, however, anybody may have wrinkles on the face, and there will be changes in the figure and the skin. This is the arrangement of nature, which nobody can avoid. But ordinary people can hardly accept the fact of ageing. They are apt to sigh, seeing other beautiful women younger than themselves. Some women's temper may turn peculiar only because of old age.

In fact, what we should be more concerned about are the problems with health, as the ageing of the skin indicates the ageing of the intestines.

A lot of women pay no attention to this fundamental problem and don't want to make any steady efforts in this respect. In order to swiftly recover their past beauty, they often go to skin care centers or beauty parlors. In spite of the fairly high expenditure, they are only too willing to pay for the sake of "beauty", and deeply believe that the expected effect may be brought about accordingly so long as a large sum is paid.



### **To be a healthy and pretty "intestinal beauty"!**

This unreasonable method, however, is not the fundamental way for keeping younger and losing weight. Both skin ageing and obesity should be dealt with from the intestinal environment where lie the fundamental causes. No matter how beautiful your skin is and how slender you are, if you ignore the ageing inside the intestines, your skin will still turn coarse and you will still get obese.

The best way for achieving the result of true beauty is to increase the quantity of bifidobacteria in the intestines.

Such being the case, the dietary style has to be reevaluated with special attention paid to the initiative intake of bifidobacteria. If you wish for natural youth, you have to take the "intestinal beauty" rather than the "beauty at the health spa" as the objective.

Compared to the beauty at the health spa, the intestinal beauty may need greater efforts. However, from a long-term point of view, gradually improving the dietary style is the most reliable way for recovering youth and health.

22-year-old Miss Wang is a person who used to suffer repeatedly from a diet. In order to keep her figure, she ate nothing except fruit for a long time.

As a result, she fainted one day in the office because of lack of nutrition and was hospitalized for three days. After being discharged from the hospital, Miss Wang, having drawn the lesson, dare not go on with the diet any longer.

However, she got rapidly fat, and even fatter than before going on a diet, for which the beauty-eager Miss Wang was overwhelmed with sorrow. It happened that one day she came into contact with soy oligosaccharide. After taking it for two months, not only did she succeed in losing weight, but her health conditions were getting better and better. Now she has regained her previous youth and beauty.

A slight consideration of the food you take every day may bring about the result of cleaning intestines. AS long as you choose to do so, you may become an "intestinal beauty" too.

### **THE VARIOUS SOY OLIGOSACCHARIDE PRODUCTS**

Soy oligosaccharide is a kind of sugar not easily absorbed, with lower calorie and sweetness. Being heat and acid resistant and easy for processing, it can be processed into various foods.

The following are part of the representative products:

1. Sweetener

in forms of milk, powder and granules

2. Dairy products

including fermented milk, lactic acid drinks, powdered milk for babies, etc.

3. Soft drinks

fruit juices, cold drinks, soybean milk, powdered soft drinks, etc.

4. Pastries

chewing gums, small sweet cakes, biscuits, snacks , chocolate, Japanese sandwiches, cakes.

5. Desserts

fruit jelly, etc.

6. Cold desserts

ice cream, fruit juices, ice chewing gum.

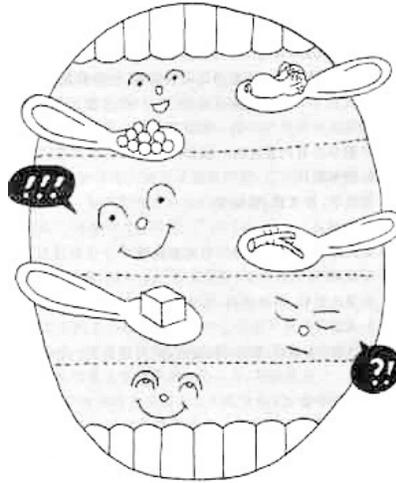
7. Bread

bread, fruit bread, seasoned bread, etc.

8. Jam

jam, peanut butter, chocolate paste, etc.

9. Others



**Vegetables, beans, potatoes and other raw materials, containing large quantities of dietary fibers, can help regulate the environment in the intestines.**

#### **THE DAILY EATING METHODS**

Soy oligosaccharide, originally as a substitute for granulated sugar, can certainly be used conveniently. In addition, it has another advantage that it can make the cooked foods look very attractive.

It is said that a teacher of a cooking class once used soy oligosaccharide to cook a French dish of baked fruit with milk, which looked so delicious and appetizing. What the teacher had in mind was: "soy oligosaccharide is quite similar to western style desserts in nature."



**If soy oligosaccharide is eaten together with foods rich in vitamin C & E and dietary fibers, the intestines will be even cleaner and healthier inside.**

Therefore, the desserts made in this way may make you enjoy the pleasure of doing them and let you have access to the foods beneficial to health as well, which indeed can be considered as killing two birds with one stone.

When cooking dishes in future, some soy oligosaccharide may be added. Soy oligosaccharide can effectively increase bifidobacteria. In addition to that, vegetables, beans, potatoes and other raw materials, containing large quantities of dietary fibers, can also help regulate the environment in the intestines.

The easiest method is, of course, to add soy oligosaccharide to coffee or black tea as a simple sweet flavoring. We hope everyone can find a suitable method of taking soy oligosaccharide into his daily life. Though soy oligosaccharide itself is able to effectively increase the bifidobacteria in the intestines, the result will be still better if it is taken together with bifidobacteria. Another method is to take soy oligosaccharide mixed with yogurt containing bifidobacteria or lactic acid drinks. Yogurt is especially good with rich calcium and minerals in it. Some people may have diarrhea when drinking milk. If drinking milk mixed with soy oligosaccharide, you will not be liable to dysentery. Vitamin C & E and dietary fibers have the same role of the bifidobacteria in inhibiting the production of harmful substances in the intestines. If soy oligosaccharide is eaten together with foods rich in these substances, the intestines will be even cleaner and healthier inside.

Taking soy oligosaccharide mixed with yogurt, salads or condiments, or poured on foods has the same effect. Everyone is free to choose one's own eating method.

### **THE PROPER INTAKE AMOUNT OF SOY OLIGOSACCHARIDE**

The effective intake of soy oligosaccharide is 3 to 15 g per day, varying with the products. This is the general standard, which may vary slightly with persons too. Therefore, soy oligosaccharide should be taken according to the standard volume for a certain period before any adjustments are made in line with the hardness of the feces and the changes in the body.

By the way, eating beans may make you, though only occasionally, apt to break wind, which is also the result brought about by the soy oligosaccharide. If they are often eaten, it won't be so intense as an environment has taken form in the intestines, where no gas can be produced.

Some people may pass soft stools or have diarrhea after taking soy oligosaccharide. That is because a large dosage of soy oligosaccharide is taken suddenly to the extent that is unbearable to the intestines.

To some people, taking 1 g of soy oligosaccharide each day may show its effect, whilst to others, even taking over 10 g will still show no result. For instance, 5 g of soy oligosaccharide will be effective to me. However, it can only be effective for my wife to take 10g of soy oligosaccharide of the same brand.

Your own health has to be taken care of by yourself. Therefore, spare no pains and try repeatedly to find a method of taking soy oligosaccharide suitable for you.

### **MAY BE TAKEN BY DIABETIC PATIENTS ASSUREDLY**

What may happen to the health conditions after the diabetic patients take the soy oligosaccharide?

Mr. Harakozo and others once made a test on the digestion in human body with the soy oligosaccharide developed by them.

We can see, from Mr. Harakozo's test, that only 15% of the soy oligosaccharide taken by the people was decomposed by the hydrochloric acid in gastric juice, and 5% by the mucous membrane of the small intestine, with the rest, almost undigested, going directly to the large intestine.

It can be proved by the test that after the absorption of the soy oligosaccharide, both the blood-glucose index and the insulin density can hardly rise. Such being the case, diabetic patients may take soy oligosaccharide assuredly.

No matter how good soy oligosaccharide is for human body, it is by no means a good thing to take too much. It is advisable to start with 10 g each day at the initial stage. In case there is no result, increase its quantity bit by bit until you are clear of the dosage suitable to you. However, the maximum dosage should not exceed 0.6 to 0.9 g per kilo of body weight each day.