

## CHAPTER ONE

### GOOD HEALTH AND BEAUTY START FROM INSIDE THE INTESTINES

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#### THE VEXATION OF THE "ECONOMIC CREATURES"

In an investigation made by a certain magazine regarding job seekers as the target, those who gave the answer "it's better to have two days off each week though the salary might be as low as 20 to 30 thousands yen" exceeded, in number, those who chose high- salary jobs. ----- Even the Japanese known as the "economic creatures" have also started pursuing leisure now!

This pursuit is the inevitable reaction to the practical vexation of the Japanese at present. The pursuit, however, often remains as an extravagant hope only.

Look at the scenes of people going to work in the morning: the number of the salary earners who stand eating in the canteen of a station or eat hastily buckwheat noodles seems no less than before. Most noticeable among them are the company clerks who buy sandwiches and leave in a hurry.

Everybody is very busy in the morning with the career women especially in a terrible fix. Besides preparing breakfast, they have to choose what to wear, put on make-up and sometimes curl their hair. In case they get up a bit late, they even have no time to have breakfast or use the washroom.

This sort of life is usually accompanied by constipation or diarrhea.

Whoever has suffered from constipation may have this feeling: If this lasts for several days without bowel movements, the lower abdomen will feel distended , painful, or strained as if the body has been blocked by something (in fact it is really blocked up). With no good appetite, prickly sensations will be felt all over the body. In the end, the painstakingly preserved complexion starts losing its color.

When someone feels uncomfortable in the stomach or intestines, even if she is fashionably dressed, she may not be deemed fashionable or smart just as in the case of a high-class

sedan car driving off with black smoke trailing behind.

As the ancient saying goes, "the recipe for good health lies in eating comfortably and passing stools smoothly". It is most important to health to have a good appetite and swiftly discharge those useless materials.



**Even the Japanese known as the "economic creatures" have also started pursuing leisure now!**



**When someone feels uncomfortable in the stomach or intestines, even if she is fashionably dressed she may not be deemed fashionable or smart just as in the case of a high-class sedan driving off with black smoke trailing behind.**

### **CONSTIPATION AND DIARRHEA, THE ROOT OF ALL DISEASES**

It is often said that the common cold is the "root of all diseases". As a matter of fact, constipation and diarrhea are the "root of all diseases", which are much more terrible than the common cold.

The initial symptoms of constipation appear in the forms of distention of the abdomen, or increase in the times of breaking wind and belching. At this stage, you only feel a little uncomfortable. However, if it is ignored, it may generate into chronic constipation. It will not be long before your head feels heavy and your shoulders ache as well. Quite a few people

may have the symptoms of fatigue, dizziness or insomnia while cramps may be found with certain children.

If it develops waywardly, constipation may bring about serious results, which may go far beyond the readers' imagination.

Lasting constipation may harm the anus, resulting in hemorrhoids. If constipation remains uncured, ten or twenty years later, not only will the intestines be dirty inside and the body get aged in advance, but cancers may also be induced in the large intestine and breasts in addition to the occurrence of hypertension, heart diseases, liver poisoning and so on.

The number of people stricken with diarrhea roughly equals those with constipation.

Acute diarrhea usually caused by eating improperly will not, if treated in time, result in a serious problem though terrible at the time of occurrence. In the case of chronic diarrhea, however, causes must be found to improve the condition. If necessary, the patient should be sent to the hospital for a careful examination and formal treatment.

Lasting diarrhea may cause malnutrition, and on top of that, may cause the patient to get nervous and refrain from eating casually, thus leading to further nutrition deficiency and delaying the cure. Quite a few people may also suffer from the "secondary diseases" such as losing weight or anemia as a result of diarrhea year in year out.



**Whoever has suffered from constipation may have this feeling: if this lasts for several days without bowel movements, the lower abdomen will feel distended, painful, or strained**

### **THE MAJOR WORRY OF WOMEN: SKIN COARSENESS**

Good skin complexion, reputed as one of the signs for being beautiful, is closely related to the comfortable stomach and intestines, which are also the basic conditions for physical and mental health.

What the ancient and modern, the Chinese and foreign women have yearned for day and night is a fine and smooth skin with elasticity, for which ladies have made unremitting efforts

since ancient times. Chaff bags and oriole feces were used for washing the face and various high-grade cosmetics have also been tried. Nevertheless, the beauty of the skin obtained in this way is actually only superficial beauty. Acne may emerge whenever physiological indisposition is felt.

Our skin, formed of epidermis, derma and subcutaneous tissue, plays the role of protecting the body's various internal organs and transmitting pains, cold and heat, and touch to the central nervous system of the brain, and has the function of regulating the body temperature. Skin is renewed about once a month. The old skin tissue turns into grime and peels off. The outermost layer of the epidermis called cuticle is actually the reserve of the skin grime, which is ordinarily deemed as the skin by us.

The cuticle contains water and oil. Skin, when short of water and oil, may have pimples appear on it and become coarse, for which water and oil should be supplemented properly by way of applying, for instance, cosmetics, lotions, etc. The effect of outside maintenance is, however, only limited to the cuticle, no matter how expensive the cosmetics may be. To have the skin acquire true beauty, efforts should be made from inside the body.

Both acne and coarseness of skin are apt to appear during constipation as a result that the feces long stored up in the intestines lead to the multiplication of harmful bacteria and thus create a large amount of toxic materials detrimental to the skin, which are then carried by blood into the body.

Constipation may also be brought about by mental strain, imbalance of nutrition caused by food partialities, insufficient sleep, irregular life, etc.

Irregular life, which damages the skin, may lead to constipation, and constipation may, in return, aggravate damage to the skin, forming a vicious cycle. Nobody can bear this however beautiful the skin may be.

To relieve the worry about acne and coarse skin, not only should the skin be treated with care daily but attention should also be paid to the cleaning of the intestines internally.



**Irregular life, which damages skin, may lead to constipation, and constipation may, in return, aggravate damage to the skin, forming a vicious cycle.**

### **WHY THE INFANT'S SKIN IS SO DELICATE AND CLEAR**

Almost all women dream of having a smooth skin like an infant's.

Why is the skin of the infant so beautiful?

Compared to the skin of the adult, that of the infant, though little in amount, contains much water. That's why the infant's skin is so delicate and full of elasticity.

Another factor related to the elasticity of skin is the collagen fibril, elastic fibril and lattice fibril in the derma. These fibrils in the infant are soft with elasticity. After people enter the age of 20, the skin will arrive at a "turning point", where the collagen fibril reaches its climax and starts ageing, gradually losing its elasticity.

The ageing of skin is a natural physiological phenomenon. Though the ageing is unavoidable, its speed can be lowered.

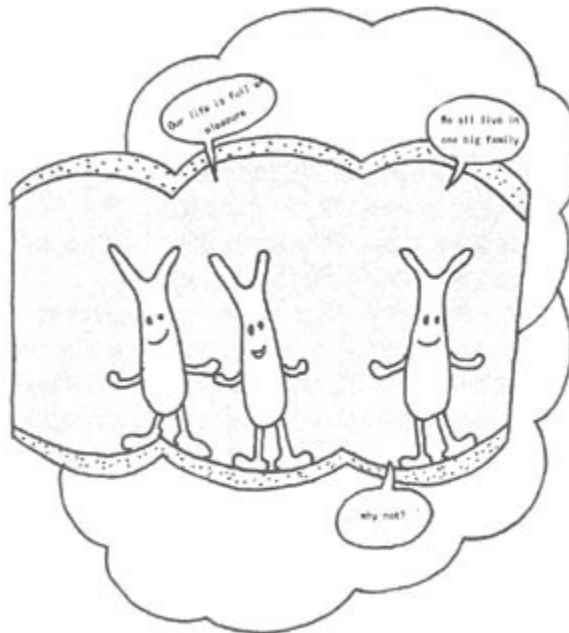
Intestines undertake the important function of maintaining the beauty of the skin. In this respect, there exist great differences between the intestines of the infant and those of the adult.

In people's intestines live a great number of bacteria, among which bifidobacteria are beneficial to our body while perfringens and colibacilli are harmful. In the infant's intestines bifidobacteria occupy an absolutely dominant position, which is the secret of smooth skin free from acne and coarseness.

With the growth of age, the amount of bifidobacteria is on the decrease, while, on the contrary, the amount of harmful bacteria is on the increase, thus making the skin lose its elasticity and color, and turn sallow as a result of that. This may be deemed as the internal result of the ageing of both skin and intestines.



**Bifidobacteria are the important reason why the infant's skin is so delicate and clear**



**In the infant's intestines, bifidobacteria occupy an absolutely dominant position**

### **THE SECRET OF LONGEVITY---KEEPING THE INTESTINES CLEAN INTERNALLY**

The Physiological and Biochemical Research Institute that I am working with once made an investigation and analysis about the bacterial conditions in the intestines of the age-advanced

people living in Okahara, Uenoharacho, Yamanashi, known as the famous longevity area in Japan. Meanwhile investigations and comparisons were made as to the institute's young and mature group from 25 to 42 years of age and the age-advanced in Tokyo (78.4 years old on an average).

The comparisons of the three groups indicated the sharp difference in the checkout rates of the bifidobacteria and perfringens. All the members of the young and mature group were found with bifidobacteria, while only 70% of the age-advanced in Tokyo, and 82% of the aged from Okahara were found with bifidobacteria, with the latter being 12 percentage points higher than the former.

The checkout result of the harmful perfringens was almost entirely opposite to that. 81% of the age-advanced people living in Tokyo were found with perfringens. However, the checkout rate of the perfringens with the people from Okahara was much lower, being only 47%, which was almost the same as that with the young and mature group.

With the growth of age, the amount of bifidobacteria in the intestines gradually decreases while that of the perfringens increases with stronger living ability.

Therefore, the ageing progress can be inferred by investigating the balance conditions of the bacteria inside the intestines. If the materials harmful to the body are produced and accumulated in a large amount in the intestines, the ageing progress may be quickened after the toxic materials are absorbed.

Investigations indicated that although the average age of the aged in Okahara was 4 years higher than that of the Tokyo people, their balance conditions of the intestinal bacteria were found very young. As the whole body was young, the intestines were certainly young internally. It was the good balance of the intestinal bacteria that reduced the ageing speed. In conclusion, keeping the intestines clean internally was the secret of the longevity of the aged in Okahara.



**If the materials harmful to the body are produced and accumulated in a large amount in the intestines, the aging progress may be quickened.**

### **State of the Intestinal Bacteria of the Aged People in Okahara**

	Adults(42 persons) 31.8+/-6.6 years	The aged in Okahara (17 persons) 82.1+/-7.2 years	The aged in Tokyo(37 persons) 78.4+/-10.4
Check-out rate of bifidobacteria	100%	82.4%	70.3%
Number of bifidobacteria	10.0+/-0.8	9.6+/-0.7	9.0+/-1.0
Check-out rate of perfringens	45.2%	47.1%	81.2%
Number of perfringens	4.4+/-1.2	6.7+/-1.6	6.4+/-2.3

**\*the average logarithmic value per gram of feces +/- (plus or minus) the standard deviation**

### **MAKING A TRIAL OF "THE INSIDE-INTESTINE CLEANING METHOD"**

There live in the intestines quite a large amount of bacteria, which will be described in detail later. Whenever bacteria are mentioned, they are apt to be considered harmful organisms causing various diseases, which, however, is not always true.

In animal tests, the life span of the animals raised in the bacteria-free environment was 1.5 times that under normal conditions. However, it is impossible for us human beings to live in the bacteria-free environment all our life. We have to live in company with all kinds of bacteria whether we like it or not. This is the reality of which we have no choice.

What we can choose is the "inside-intestine cleaning method": discharging the bacteria harmful to the body while living with those beneficial to it. This is the key to keeping health, beauty and longevity.

The multiplication of harmful bacteria in our intestines may produce carcinogens and certain bacteria known as (harmful) putrefying bacteria. It is the beneficial bacteria that decompose and inhibit these materials and harmful bacteria. Beneficial and harmful bacteria battle frequently in the intestines.

In these battles, if the beneficial bacteria possess overwhelming superiority, the





**Whether there live in the intestines large quantities of bifidobacteria has become the key to beauty and health.**

intestines will turn clean internally and the function of the intestines will become active.

The bifidobacteria take an important position here. Bifidobacteria, among the beneficial bacteria, are the major force for "inside-intestine cleaning" and the trust-worthy soldiers smashing the harmful bacteria. Such being the case, whether there live in the intestines large quantities of bifidobacteria has become the key to beauty and health.



## **Bifidobacteria are the major force for the “inside-intestine cleaning” and smashing of harmful bacteria**

### **HOW TO INCREASE BIFIDOBACTERIA**

There are two ways of increasing bifidobacteria.

The first is to take, from outside, foods containing bifidobacteria, for instance, yoghurt that contains bifidobacteria. Sometimes bifidobacteria are frozen and dried for this purpose. However bifidobacteria are not resistant to acid. When they are taken on an empty stomach, their activity may be reduced by the strong hydrochloric acid in gastric juice.

Not all the bifidobacteria taken from outside will die because of the hydrochloric acid in the stomach. Those fortunately left may also multiply after they enter the intestines.

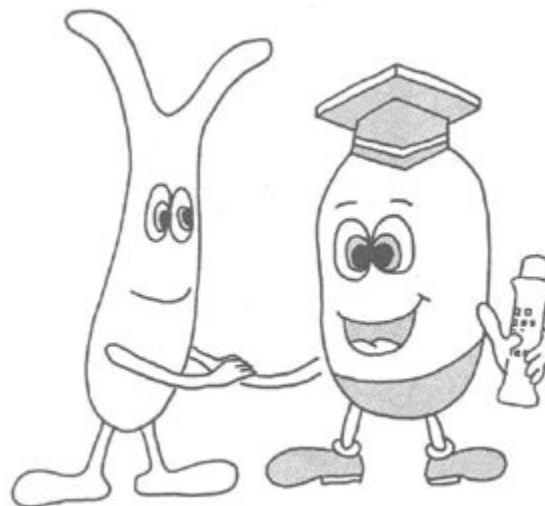
However, it is very difficult for those bifidobacteria entering the intestines from outside to live long in the intestines.

Another way of increasing intestinal bifidobacteria is to increase the amount of the bifidobacteria that have already been living in the intestines. That is, a large amount of nutrition needed by the bifidobacteria is sent to the intestines for the multiplication of the bacteria living there. Different from those entering the intestines from outside, bifidobacteria in this case may be enabled to live longer in the intestines.

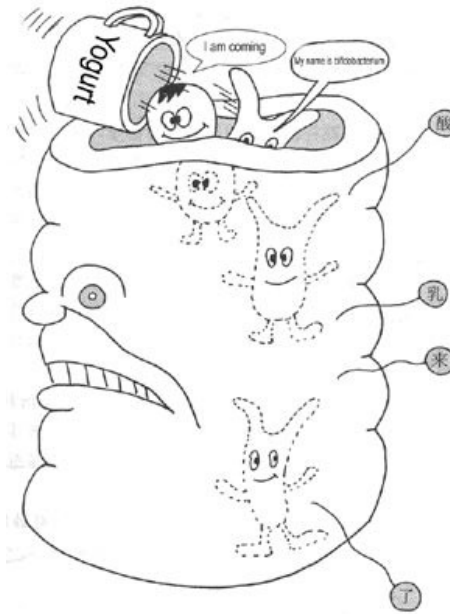
Dextrin, as a moderator, can be used as the multiplication factor for bifidobacteria. But unfortunately, dextrin is not only the nutrient for bifidobacteria but also for part of the harmful bacteria. Therefore, soy oligosaccharide has recently roused people’s high attention.

As proved by scientific researches, soy oligosaccharide is mainly used by bifidobacteria and can hardly become nutrition for other harmful bacteria in the intestines. As soy oligosaccharide has the specific property of hardly being absorbed by the intestines, it can directly enter the large intestine as nutrition for bifidobacteria.

The sweetness of most of the soy oligosaccharide on the market is 40-70% of that of the granulated sugar, thus making it possible to be used as a new sweetener.



## Taking soy oligosaccharide is the most effective way of increasing bifidobacteria



**Taking yogurt may help increase the bifidobacteria that have originally been living in the intestines.**

### A NEW CHOICE FOR THE DIETERS

With the decrease of food in-take, the feces quantity of the dieters becomes less, which makes it difficult to transmit the information on bowel movements, thus causing constipation. Therefore, dieters should usually pay attention to prevention of constipation.

When on a diet, the quantity of certain things taken is required to be controlled and reduced sharply. That is quite dangerous. Therefore, the key point of being on a diet is to improve the diet structure gradually and continuously. If the intake of one's favorite foods is controlled too tightly and too much thought is put on it, mental pressure may arise, and other foods may be taken excessively instead, thus causing obesity contrary to one's wish.

How is it that those who desire sweet foods take soy oligosaccharide instead of granulated sugar?

The soy oligosaccharide, with its sweetness lower than that of granulated sugar, gives a cool and refreshing feeling in its taste. In addition, it can help increase bifidobacteria in the intestines, thus making the intestines comfortable. Therefore, oligosaccharide is, in respect of beautification, also helpful for those stricken with constipation caused by less discharge as a result of diet control.

A diet control with the loss of one's dining pleasure will not last long. Eating heartily without rigid restrictions is considered a wise diet control.

Being on a diet at the expense of future health is utterly senseless.

Only healthy beauty can be considered true beauty.



**Entry of bifidobacteria effectively improves the environment in the intestines.**



**If the intake of one's favorite foods is controlled too tightly when on a diet, mental pressure may arise, and other foods may be taken excessively instead, thus causing obesity contrary to one's wish**

### **BAD BREATH ORIGINATING FROM FOUL INTESTINES**

People with bad breath are increasing daily.

For this reason, it is said that chewing gums and mouth sprays for removing bad breath are being sold in large quantities in pharmacies and shops at railway stations.

Though bad breath removers are important, the key to the problem is to find the source where the bad smell is produced.

Residues left in the mouth after eating or drinking lead to the multiplication of bacteria, which is extremely unsanitary.

Fortunately the mouth cavity has the function of self- cleaning. It can be cleaned to a certain extent by saliva, eating or mouth movements. However, as the saliva secretion is inhibited and mouth movements cease while sleeping, the self-cleaning function is reduced. That's why people with no bad breath in daytime may also have that feeling of bad breath after getting up in the morning.

To remove bad breath, it is most important to keep the mouth cavity clean. It is, therefore, necessary to remove the food residues in the mouth by brushing the teeth every morning and evening, and doing chewing exercises frequently.

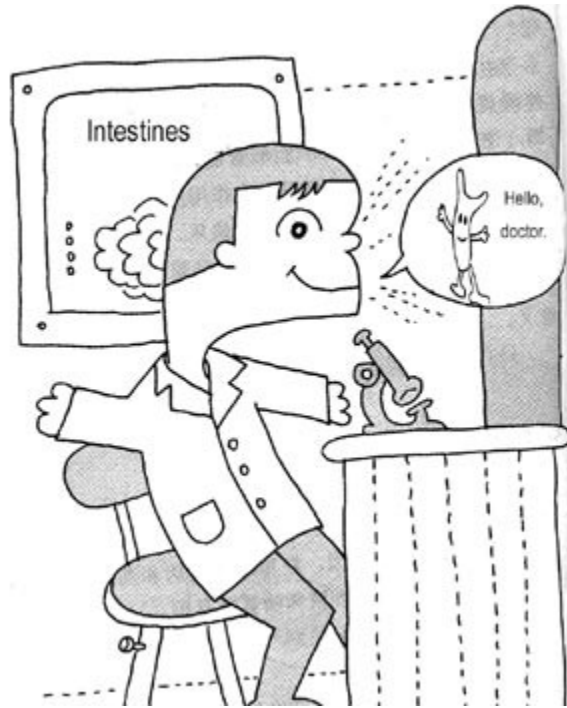
It seems that ordinary people don't know constipation can also cause bad breath. The feces long stored in the intestines unceasingly get putrid and produce toxic materials, which fill the large intestine with foul smells.

As a matter of fact, bad breath is caused by the abnormal fermentation in the intestines, which produces gas leading, sometimes, to bad breath. The gas entering the blood from the intestines is transmitted to the lungs and then expired out through the mouth, thus causing bad breath.

This makes us clear about the importance of the intestines. Besides, other reasons causing bad breath include: 1). empty stomach and fatigue; 2). diseases with the digestive or respiratory system; 3).diabetes and other diseases affecting the whole body; 4). alveolysis and other dental diseases; 5).pustulosis and other diseases with the nasal cavity.

If you still have bad breath while you are with no diseases and the mouth cavity is kept clean, we have the reason to suspect that the bad breath is caused by constipation.

Bad breath is of course related with flatus as well.



**In the course of research, large quantities of bifidobacteria were found in the intestines of healthy people**

### **FARTING THROUGH THE MOUTH**

Flatus is expelled from the anus and also from elsewhere. Do you know this?

When you are with a friend of the opposite sex you like very much, you dare not break wind though you want to. After restraining for a while, you do not have the sensation of doing so again. Anybody, I think, has experience like this.

However, the flatus you once wanted to release has not disappeared. Then where on earth has the flatus gone? In fact, it has come out through the mouth together with the air expired.

Maybe some girls would flush and say : "It is embarrassing enough, how could it come out through the mouth? ..." But the flatus unable to be further contained indeed comes out of the mouth.

In spite of that, it is not because of the tight closure of the anus that the gas flows adversely from the small intestine to the stomach and then comes up through the esophagus. If the flatus should come intact out of the mouth, it would not only stifle the people around but might even make oneself faint.

When the flatus is restrained from coming out, it will be stored in the intestinal tube. The gas may exchange with the air in the blood in the intestinal mucosa. Therefore, when the gas density is high in the intestinal tube, the gas may flow into the blood and then be carried intact by the blood to the lungs, which discharge the gas together with the air expired.

As the constituents of the flatus may come out of the mouth, or in other words, the gas in the

intestines may exchange with the air in the blood, the type and quantity of the gas stored in the intestines may be inferred to a certain extent by analyzing the gas expired.



**It is embarrassing enough, how could it come out through the mouth? .....**

### **INTESTINAL BACTERIA PRODUCE BAD SMELLS**

The National Aeronautics and Space Administration of America, on the basis of researches, has found that flatus contains about 400 constituents, mainly being such stink-free gases as nitrogen, hydrogen, carbon dioxide, methane, oxygen and so on, and very little ammonia, hydrogen sulphide, indole, scatol, volatile amine, volatile fatty acid, etc., which constitute the cause of the bad smells.

Except nitrogen and oxygen, almost all the constituents of flatus are produced through the intestinal bacteria.

The gases produced through the intestinal bacteria are mainly hydrogen, methane, and carbon dioxide. That is to say, even the main components of the flatus are not the cause of the odor. There must be other reasons why flatus has a bad smell.

All the gases with bad smells come from protein. These foul gases may emerge only when the protein is decomposed through the putrefactive bacteria in the intestines.

That's why so offensive is the flatus of the flesh-eating animals like tigers and lions, and those people who have foods and drinks of the American-European style. Too much protein is taken. On the contrary, not so offensive is the flatus of the people who take plenty of starch or dietary fibers, or drink much milk.

In other words, the smell of the flatus, as that of the stool, may be a little lighter if a healthy dietary style is adopted.

There exist in the people's intestines a lot of bacteria that may produce gases.

Bacteria unable to produce gases are very few in the intestines, including only bifidobacteria

and lactobacilli. Therefore, foul flatus may naturally become less if foods helping increase of bifidobacteria are often taken.

Besides, when in poor health, flatus may also increase in quantity. For instance, hepatocirrhosis may cause barriers to the function of digestion and absorption, or imbalance of the bacteria in the intestines, which may give rise to the increase in gas.



**These foul gases are all produced through the putrefactive bacteria in the intestines.**

### **ANXIETY, THE MAJOR ENEMY OF HEALTH**

People prone to anxiety when meeting with some trifles are most apt to have constipation, intestinal and gastric upsets, mental disorders, etc. The instability of feeling may lead to the imbalance of self-regulating nerves and the disorder of hormone secretion, which may cause constipation and coarseness of the skin. Hysteria characteristic of women also has close relations with the abnormal secretion of hormone.

Mental strains may cause physiological changes in the body and the abnormality of the body may, in return, affect the mentality. This is called physiopsychic enantiotropy, which may be regarded as a proof of our gradually deteriorating living environment. The ceaseless traffic noises even late at night, the complicated interpersonal relations, the office automation and so on, these factors of environmental pressure, big or small, can be found, indeed, anywhere around us.

In the body, what may be affected most easily by the environmental and mental pressures are the digestive organs. Intestinal and gastric upsets may lead to poor appetite, or even if the foods are swallowed reluctantly, their nutrition is unable to be fully absorbed.

In this case, the delicate balance in the intestines may be damaged, with the harmful bacteria being on the increase and the vitality of the beneficial bacteria like bifidobacteria on the decrease. To minimize the damages from the environmental pressure, maximum efforts should be made to raise the vitality of the bifidobacteria. The intestines must be filled with



bifidobacteria.

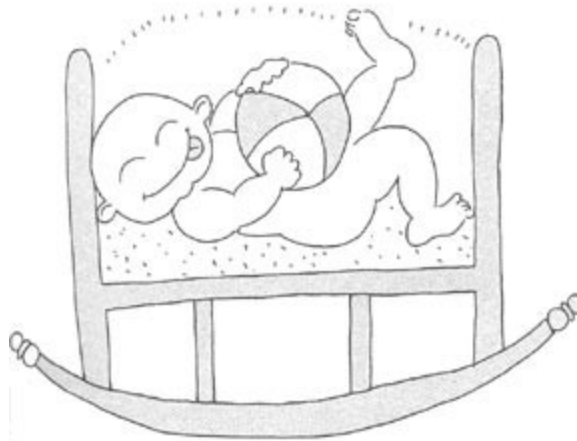
### **THE REASON WHY THE MOTHER'S MILK CAN MAKE THE INFANT HEALTHY**

The person that first discovered bifidobacteria was Trssier (France, 1899). At that time, many children died of dysentery, with the hand-fed infants' incidence much higher than the breast-fed infants'.

As shown by the comparison between the breast-fed and the hand-fed infants, large quantities of bifidobacteria live in the intestines of the breast-fed infants, which will be made clear in the following studies. The breast-fed infants are therefore considered to have stronger bacteria-resistant abilities and more active intestinal functions, as a result of which their incidence of dysentery is lower.

In the case of breast-feeding, the mother's immunity is transmitted through the milk to the infant, which is also an important factor why the breast-fed infants are not susceptible to diseases. Investigations and statistics have indicated that the incidence of diseases with the breast-fed infants is only one quarter to one third of that with the hand-fed infants.

As proved by a recent research, the mother's milk contains over 50 constituents of oligosaccharide. 95% of the bacteria in the intestines of the breast-fed infants are bifidobacteria, from which the strong effect of soy oligosaccharide on the multiplication of bifidobacteria can be well seen.



**Large quantities of bifidobacteria live in the intestines of the breast-fed infants.**