

Health Condition and Diet: The Way to Health  
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## I. Introduction

I am not a scientist who stays in a lab and does scientific research all the time. Neither am I a scientific scholar who publishes one scholarly article after another. It has been more than 30 years since I got into the field of medicine, and during those years I have been examining my patients as well as getting sick myself. After examining numerous patients and children of physically weak constitutions, I became painfully aware of the difficulty of curing sickness and diseases as well as finding their causes. I have since been thinking about problems such as condition, constitution and diet. I cannot emphasize enough the importance of our daily diet to our health and, consequently, the degree of sickness and effects of medication and its ability to cure. After conducting much research on various healing diets, I finally found Miso, which I realized was the basis of the Japanese diet. This is the traditional food that has been passed from generation to generation in Japan and is fit to the condition and constitution of the Japanese people. It likens to the path of philosophers in the West as well as those in the East. Miso started far before the origin of science, and its beneficial effect is something that should be proved scientifically.

Dr. Tatsuichiro Akizuki at the St. Francis Hospital

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### I. Introduction:

The reason I chose to be a medical doctor is a little bit different from other doctors. From my youth, I was very weak and sickly. My sisters were also sick and mostly confined to bedrest because of tuberculosis or pleural inflammation. I chose to be a medical doctor because I wanted to overcome my sickly condition. However, the more I studied medicine and medical science, the more I realized that the medical treatments currently being conducted are not sufficient for my weak condition and constitution. Modern medical treatment is symptomatic treatment or operation treatment. They are last resort treatments; not preventative medicine, but outcome treatment. I came to realize that this is not true medical treatment.

The development of new chemical treatments has led to progress in killing viruses and bacteria which are considered to be the direct cause of disease. There are also now operations that will cut off the diseased part. This can be considered preventive medicine. However, after deep consideration, I have come to believe that these viruses or families of bacteria could be considered the early stage of sickness. They are not the true cause of disease in the human body. So what seems to be preventive medicine can actually be outcome medicine. Therefore, various chronic diseases in fact are not cured at present. Some doctors say that if we catch the disease at an early stage of diagnosis, the patient will be cured. However, this is not true.

### II. Condition Medicine:

I was disappointed by these results, so I tried to find a true medicine in preventive medicine. However, there are some reasons why these outcome treatments should be done. I am not saying that outcome treatment is not beneficial: I am just saying that preventive medicine is more attractive to me.

True medicine, or medical science, is supposed to better the human condition and make the body immune to disease. Additionally, even though we get sick, the body should have the ability to cure the disease by itself. Also, even though a person suffers from a chronic disease, by changing health conditions the sickness would be cured after a while. This is the

medicine I am talking about.

At present there is much research being conducted to find out a way to avoid sickness or, when people do get sick, to reduce its seriousness. Take for example flu shots or vaccinations for smallpox. However, these are individual treatments for individual diseases, and I would like to treat the entire body. In truth, this is much easier. Whether we are sick or wish to prevent sickness or whether the disease is serious or not, these problems are determined by our health condition.

### III. Health Condition:

There is a disease called cancer. The treatment for cancer at this time is to catch it at an early stage and cut it out in an extensive surgery and then follow up with strong radiation treatments and chemotherapy. However, these treatments do not always work.

These days, lots of people are suggesting that we find a human host that has cancer for study. For example, in some cancer patients, the cancer becomes very aggressive. However, other cancer patients have a more slow-growing cancer. In other words, some people can live with those cancer cells for five or even ten years. Some effort has been made to try and research these differences.

This can be applied to not only cancer but any disease. For example, Tuberculosis is often considered to be the result of the tuberculosis virus. However, tuberculosis's severity really depends on the health condition of the patient. Some patients can be cured of tuberculosis easily while others do not respond to even varied treatments. These differences depend on the patients' health condition.

I myself was very weak and sickly, so while I was studying medicine my interest was pointed towards the health condition. If we do not solve this problem and change health conditions for the better, we can never see the true results of medicine.

### IV. Diet:

My belief has been strengthened after thinking about my own sickness and health condition as well as listening to various theories and learning about the study of conditions and health. My belief is that health condition is determined by diet. The condition is, in fact, directly related to diet. While this idea might be a little bit of an over-generalization, but I truly believe that condition is determined by diet.

Regarding condition: of course there is an element of our health that is passed down from our genetic ancestors. However, at the same time, we create our own condition daily. Sometimes when people get sick, they say that, "oh, I am sick because of the condition I was born with." It seems as if they are giving up about changing their health, as if it were their destiny. But that is not right. Health condition is something that we are born with, but at the same time is created daily by the food we eat.

So what is the element that determines our condition in our daily life? The answer is environment, especially the living environment. What we inherited from our ancestors will be modified within the living environment. An environment can include sand, air, water, and so forth, but in fact diet is the primary factor. Since I contracted tuberculosis, I have been very sickly and weak, and so was greatly depressed. I have two sisters, one older and one younger. Both of them have died of tuberculosis. My condition was worse than theirs; I was weaker than them. I thought that there was no way that my sickness would be healed. So, with all my strength, I decided to aim to change my health condition.

#### V. Nutrition:

For me, diet is the origin of life. It is not only nutrition but has a deeper meaning. Then, what kind of food should we eat and how should we eat them? This is usually considered in the field of nutritional studies in the scientific category.

Until I contracted tuberculosis, I only had general knowledge about nutrition, such as the fact that chicken, butter, milk, meat, tomato, and spinaches are nutritional foods. Because of that, from my youth I tried to eat as much eggs, meat, and milk as I could, believing that they would make me healthier. As a result, I got a weak condition which turned into tuberculosis. I did not like nutritional studies. However, in order to study the issues of diet, I once again began nutritional studies after my sickness. Not only that,

but I explored various studies on nutrition, diet, brown rice diet, vegetarianism, and so forth.

As a conclusion, the nutritional study in modern medicine has identified just a small part of the issue of diet as a source of human life. I have come to realize that nutritional studies in modern medicine is not fully developed. I believe that just practicing what nutritional studies are saying is dangerous. People who have a weak condition often believe in nutritional studies. Westerners and the Japanese have different conditions and traditional diets and the weather and the environment in which they grew up are different. Therefore, what is studied in Western medicine cannot be applied directly, without any modification, to the Japanese people.

It is also important to note that human beings are different from animals. Nutritional studies often use animals and conduct experiments on animals to find out their nutritional research, which they then publish. For example, the nutritional value of food is determined by the growth and increase of the rate of mice when they eat that food. The food that makes the mice biggest is the best food for humans. I find this idea is strange.

Human nutritional studies should have a sub-category of Japanese nutritional studies. However, I am sorry to say that what I learned as a medical doctor is western medicine. The environment is different, race is different, and traditional food is different. We have to think about the soil that we live on when we think about race and ethnic groups. For example, Jewish people are different from the British or Russians. However, the environments these people live in do not have the distinctiveness that environments where Indians, Chinese, or Japanese people live have. They live in environments with unique soil.

Accordingly, the condition and lifestyle of these people have their own uniqueness. This is especially true of the Japanese who live in Japan, which is a unique environment. The Japanese have lived in Japan for more than a thousand years and created their uniqueness. This idea, that environment creates humans, is very important. The idea that an environment is creating a condition is very clear. Without a doubt, Japanese culture and the characteristics of the Japanese people are influenced by the environment in which they live. This uniqueness is greatly influencing the development of the Japanese way of thinking. I believe that our condition is influenced in the same way, and that diet can be also.

In the realm of nutritional ideas there is an idea called *shindofugi*. *Shindofugi* comes from a Buddhist mantra, but can also be applied to physical or medical domains. Animals do not have as clear adaptations as the plant does, but human bodies and the environment that they live in cannot be separated.

## VI. Food:

From this point of view, my own experience, and by seeing a lot of patients, I began to understand what kind of food is good for the Japanese body. People usually eat grains, vegetables, sea vegetables, meat, and seafood. But especially for the Japanese, five basic grains are the main foods. These five basic grains include: rice, barley, beans, soybeans, and wheat. That means that the Japanese body is made from rice, barley, and soymilk. Rice, barley, soybeans are the three pillars of Japanese peoples' physical condition.

Miso has also been established as the most crucial food of the Japanese diet. Lots of people may say, "oh, I know that"; however, not many know that miso is the crucial element of the Japanese diet. Soybean is hard to digest by just boiling it, but if we made miso and soy sauce from soybean, it becomes pretty easy to digest. That is the result of the Japanese wisdom from the Japanese people, and the environment that Japan created.

While I was sick in bed with tuberculosis, I spent some time staring at the ceiling and considering the changes going on in my body. I decided that in order to change my health, I would have to change my diet. Allow me to reminisce about the errors in my lifestyle, specifically in my dietary practice. My parents came from a farming village although they were not farmers. Their diet was based on barely, rice, and miso soup. They moved to Nagasaki in their twenties. As far as I can remember, they never became seriously ill. Even when they would come down with a cold, they would just take medication to increase their perspiration and would soon recover. They took *umeshoban* for their diarrhea. In contrast, I suffered from many serious diseases such as whooping cough (pertussis), inflammation of the lungs, and tuberculosis.

Thinking back on it, Nagasaki has an abundance of various fish, but not many good vegetables. Maybe it was because of that that my family

naturally stopped eating miso soup every morning. Even if we cooked miso soup, children stopped eating it and started eating fish or fish-processed products. Accordingly, my mother stopped cooking miso soup every morning. If at that time my parents had believed that miso soup is essential to Japanese dietary practice, then they would have cooked it everyday and made me eat it. Nobody dislikes miso soup. However, inaccurate knowledge about nutrition caused problems. Based on their knowledge that chicken, milk, and beef are nutritious, my parents purposefully tried to make me eat such foods. So, I changed to this dietary practice. Of course, I did not have full knowledge about miso soup. But I was disappointed in Western medicine, so I decided to change my dietary practice. I started with a diet based on brown rice, vegetables, and miso soup. I truly believe that miso soup with fried tofu and a sea vegetable called *wakame* is the true Japanese food.

This was during the war, when there were not enough medical doctors in Japan. After only three months of lying in bed I began work as a medical doctor. Although I had tuberculosis, I applied for and was accepted into the military, where I was exposed to the atomic bomb. During that time, I pushed myself too hard. I had the conviction that even though I was sick, miso with fried tofu and wakame was the essence of my body, and my disease would not get worse. It turned out to be true.

On August 9, 1945, the atomic bomb dropped in Nagasaki and destroyed almost the entire city, killing tens of thousands of people. The hospital in which I worked at the time was located 1.4 kilometers from the site of the atomic bombing, and was surrounded by the ashes of death. My coworkers and I made every effort to care for the patients who survived the disaster. The hospital was also used as a place for storage for the city's soy sauce and miso. Brown rice and miso were abundant, and we also stored many sea vegetables. My colleagues who were caring for patients did not suffer from atomic bomb syndrome. One of the reasons for this, I believe, is the miso soup.

Then how can miso prevent the harmful effects of radiation? Why does miso soup have this kind of powerful effect? I believe, scientifically, that miso soup has this kind of capacity. If it were possible to conduct a trial on humans, I would love to do the experiment. In the United States, a similar experiment was done with mice. Three groups of mice were fed different types of food; one group was given food without any fat, one group was

given food with 5% oil, and the third group was given food with 20% oil. Then the mice were exposed to radiation. The mice that ate fat free food almost all died. On the other hand, the mice in the other groups had a death rate of about one in three. Miso might not be an appropriate food for mice, so we could experiment with soybeans. For humans, miso provides good quality fat and minerals. The harmful effects of the radiation to which my colleagues were exposed were negated by the miso. This part of protection is very important when one is in a terminal stage of illness.

After that, I finished taking care of patients and cleaning up the remnants of the atomic bombs. I also gained confidence in my own health. I decided to change my condition by changing my diet. I planned to move to a farming village and establish a dietary institution. However, because in order to visit patients I needed to ride a bicycle through the country, my tuberculosis reappeared. I then returned to be the head of St. Francis Hospital. My own way of curing tuberculosis is based on miso soup in the diet. I tried a brown rice and vegetable diet, but it didn't work. So I kept eating miso soup.

During the reconstruction following the war, there was an influx of Western and American medical studies on tuberculosis. Antibiotics and surgery on the lungs were introduced, and they had a great effect not only on tuberculosis, but on people who suffered from lung inflammation or appendicitis: the mortality rate decreased to almost none. New medicines became prevalent. I also used these new medical technologies on my patients.

Although I used the results of these new medical studies on my patients, I continued thinking about the problem of body condition. If we do not change our bodies' condition, we cannot benefit from these new technologies. This is what I thought when I saw my patients. Whether the sickness is minor, serious, or completely cured depends on the body's condition. For some people, the medicine was effective and greatly improved their health. For others, there was little improvement. I thought that the difference might be caused by the dosage of the medication, the identifying of the disease, and the timing of the diagnosis, but in fact it caused by the condition of the patient, the condition into which they were born, and the condition which we affect daily with our diet.

I tried to eat miso soup daily and observed my health. However, current medical opinion does not agree. Some people say milk is good, some say

tomato juice is good, while others say health food is good. Miso soup is not taken seriously. This is because in the field of nutrition, studies on Japanese traditional food lag far behind. This is a problem. Every time I see my patients, I try to ask about their diets, especially regarding miso. Most of them say they eat miso sometimes, and sometimes they don't. I often ask my patients whose children or wives are often sick if they eat miso soup every morning. Their answer is usually "not really." Not many people eat miso soup, not because they don't like it, but because they think lightly of it as a nutritional food. Instead, they regard milk, butter, and eggs as nutritional, especially those people in the upper class. On the other hand, those people who rarely become ill usually eat miso soup every day. Maybe it is a habit.

Strictly speaking, we can know the causal result relationship between eating miso and our health; that is, we are healthy because we eat miso soup every morning, or, possibly because we are healthy we can appreciate the taste of miso soup. Yet if we eat miso soup every day, we don't get sick, or even if we do get sick it's easy to cure. It seems like there is a strong correlation between health and the eating habits of miso soup.

It is not the case that we can cure a sickness because we start eating miso soup. There is no immediate result, such as with antibiotics or adrenal cortex hormone. If we are eating miso soup every day, without our noticing our body condition gradually changes to give us immunity to sickness. The body condition becomes one in which the medicine can work. This has in fact been claimed from ancient times by medical studies.

Medicine can be divided into three types: positive, neutral, and negative. The negative medicine, so to speak, is something that has an immediate effect, but at the same time has a side effect. Neutral medicine is something that has some effect, but if we keep using it then we can cause our body to respond to side effects. Positive medicine is something that can be taken for a long time without any side effects and is something that can help our body get healthy.

In modern days, there are lots of negative and neutral medicines. These medicines have been used frequently because of today's people, who like to see immediate results. People are not patient about the medicine which doesn't have immediate results. That is why negative medicines such as morphine, thalidomide, or adrenal cortex hormone are popular while positive

medicines are not used frequently.

Miso can be considered as one of the positive medicines. In my family, we also cook miso soup with miso which has been fermented for a long time, usually the red miso. We made a rule that every member of the family eats a cup of miso soup every day. This rule has been in place for more than ten years. This habit of eating miso every day is very important. Because of this habit, my tuberculosis and asthma are getting better. I am not saying that it's completely healed, but somehow I find myself forgetting about it. Of course, I do take medicine for tuberculosis. When I get acute bronchitis I use antibiotics. When I get a fit of asthma, I also use modern medicine to calm the fit. I am not denying the benefits of these kinds of medicine. I also drink milk and eat eggs. I eat those things that are called "nutritional food" sometimes. I am not claiming that milk or egg is poisonous for a body. I am also not saying that if we eat miso every day or every morning we don't need medicine or medical knowledge or nutritional food. I am, however, saying that by eating miso soup every day, we can create a condition in which the medicine or nutritional food can work effectively. I mean the balance. Miso has the element to adjust the balance. Miso is a seasoning. Seasoning is used to adjust taste in cooking. By seasoning, we can enhance the taste of fish or enhance the natural taste of vegetables.

In that sense, miso should be called a seasoning that enhances the nutritional value. I always made my children eat a cup of miso every morning because I studied oriental medicine that claims to heal bodies by diet. So I studied children's food and their tendency to be picky, but it is very difficult to tackle the question about children's diet and their finickiness. Even if we are being too strict to children regarding their foods, it will be in vain. So, I made it a rule that I make children eat miso soup and change the item in the miso soup in a rotation of seaweed, fried tofu, or vegetables. That was the only thing I was very strict about in diet, but I am not so strict about other things. If we are too strict about everything, we can become very nervous or edgy. I believe this method helped my children to eat without any finickiness.

When I attend parent-teacher meetings in our children's school, I attend not as a medical doctor or school medical doctor, but as a father. But it is still a big problem to deal with sickly or weak students; how can we teach children to decrease their finickiness? When I was asked about this I said that every morning I make my children eat miso soup with either seaweed, vegetable,

or fried tofu, and I won't serve any other things too much. I also say that I think that it is my responsibility and duty to make sure that they eat miso soup every day.

#### VIII. Elements of Miso:

I feel that it is at this time that I have to explain why miso is so effective in a logical way. I should also explain why we have a right to explore the relationship between miso and health, and why we should keep doing that until we find a satisfactory answer. This might motivate people to progress science and technology. However, sadly to say, while some biological things can be proved scientifically with a quantitative analysis, some cannot. However, the things which cannot be proved scientifically with quantitative analysis might be more important, biologically, to our bodies. There is a famous physiologist in modern Japan, Kunihiro Hashida. He once said: "Humans make lots of mistakes in calculation, but cannot help calculating things."

From now on I am going to talk about the elements of miso. I don't want to think that because those elements are very minute and small that means that they're not important for our bodies and life. In contrast, even if it is so small an element, it can have a great impact. Or, in other words, these things are the minute and changing constantly and cannot be measured scientifically, and that is why miso is very important for the human body.

#### IX. Protein:

The diet of the Japanese people is based on rice and barley. Western diet, however, is not necessarily based on bread as the main food. Western people's diet is mainly dairy products; bread is the side dish. Japanese people's diet is mainly rice, which in itself is a good quality main dish. However, we rely too much on rice, which is the weakness of the Japanese diet. This is because a) there is too little fat; b) there is too little protein; c) there is an insufficient amount of vitamin B; and d) there are insufficient amounts of minerals.

These are the weakness of Japanese diet. Let's discuss miso from these four points.

First of all, let's look at miso as a source of protein. Miso is made from soybeans, which are often called "the beef in the field" because they have good quality protein. Soybeans have 36% of protein and 17% fat. However, if we just boil soybeans, they are too hard to eat. If we process the soybean and make soybean products such as miso, natto, or tofu, then the soybean will be changed to proteins and fat that are easier for humans to digest biochemically.

It is often calculated that human beings need at least 60 grams of protein every day. One cup of miso soup has approximately 4 grams of protein. Don't think that it's just 4 grams, however. If we add tofu into miso soup, it becomes 9 – 10 grams of protein. If we eat miso soup that means that we can get regularly get 10 grams of protein every day. This is the legacy of the wisdom of the Japanese ancestors.

Some people might say that plant protein is inferior to animal protein. Some people despise or don't take miso soup with tofu seriously. Of course, eating only miso soup creates a diet which may lack a certain kind of amino acid, which is not sufficient for human beings to grow. However, if we put dried bonito or dried fish or scallion into the soup, and if we consider that we are not just eating miso every day, the lack of a certain kind of amino acid doesn't directly mean that the protein in miso is inferior to eggs.

Also, animal protein is not necessarily good. Medically speaking, animal protein can create too much stress on the blood circulation in the kidneys or create impediments to growth in nutrition, digestion, and the immune system. The digestive wastes that pass through the kidney can stress the kidney. They can also go bad in the colon and create poisonous elements and harm the arteries around the heart or the nervous system. Practically speaking, it might create food poisoning. Also, it can create allergies and become allergens. The blood may also become acidic, causing the body to take on an acidic condition. In fact, children who eat lots of animal protein tend to have more acidic condition; in particular, there are children who eat rice with egg, fish, and beef who tend to be more allergic or develop acidosis. Miso soup does not have this kind of harm, but rather takes care of the waste in the colon created by animal proteins. Thus, miso soup with dried tofu or gluten bread is the most natural way for our body to digest, and this is what the ancestors left for us as their legacy.

## X. Fat:

The soybean is very important as a source of fat in the Japanese diet. It is both necessary and easy to understand why and how it is important. A cup of miso soup has at least 1.5 grams of fat, and if we add fried tofu as an item in miso soup, it becomes 4 grams of fat. The fat that we need per day is 30 grams, let's say. So miso soup in the morning adds up to 5 – 6 grams of fat a day. Don't say it's just a small amount. We can get a good quantity fat (6 grams) every day.

In general, fat should be eaten regularly with the same amount and should not be eaten all at once in a big amount. This could harm the body. The weakest point of Japanese diet is a lack of fat. Japanese diet does not have a regular amount of fat, so when we eat fat we take it a lot at once in the form of tempura. This is not a good custom.

There is a medical doctor, Dr. Kunatany, who studied tuberculosis among the Japanese all throughout his life. He became famous worldwide. He claimed that the Japanese people have more instances of tuberculosis, and that when Japanese people get tuberculosis, it is very serious and many people die. This is because the Japanese diet does not have enough fat. Westerners eat butter or dairy products with fat in them frequently. On the other hand, Japanese people do not eat butter. This is why Japanese people have lower immunity towards tuberculosis. I admire his ideas and knowledge. These days, Japanese people have started eating butter and milk, but I have said that we should eat miso soup with fried tofu every day. Of course butter and milk are good. But miso soup with fried tofu is good because it can be eaten every morning. Lots of housewives try to make their children eat butter, but they forget miso soup with seaweed and fried tofu. They believe that animal protein is superior to plant protein.

There is one study in nutrition which observes the degree of growth in mice that consume different kinds of fat. Of course, the mice eating milk and butter grow the most. Because of that study, it is commonly believed that butter and milk are especially good. However, soybean oil or seed oil is as good as butter, and they are much better than lard. This experiment is good, but we don't eat one food a day all month, as the mice in this experiment did. Humans eat various things, especially rice and barley as a main dish, so we have to think: what is the best as a side dish in order to balance with rice

and barley? Miso soup with fried tofu and seaweed is the best.

Some people say that we don't have to take miso as a source of fat, but we can use fish oil by eating fish. This is not true, as fish oil or fish fat is subject to extreme change. Japan is humid and very hot, so the quality of fish oil can change easily. Of course, in modern days fish oils have been used in almost every home. Butter, cheese, and fish are eaten by almost every Japanese. However, in the old days, Japanese people did not eat butter from April to October. In that sense, miso is the masterpiece that was created in the Japanese weather. The more we store the miso, the more miso can ferment and improve its quality.

#### XI. Mineral:

I am repeating myself, but the weakest point of the Japanese diet is the lack of fat and minerals. Westerners usually take minerals from drinking milk. Minerals are stored in a mother's womb when they are pregnant, and when children are infants, they will store minerals in the body. After puberty, daily intake of minerals are thrown away daily. If the intake of minerals is too small or scarce, the minerals stored in the body, especially in the bone marrow and other organs, will be used instead. So, we should take care of the amount of minerals that we consume daily.

Consuming minerals daily means that we consume minerals in order to neutralize the acid in our body. We take oxygen and we eat food and maintain our life. When we do exercise, think, or do any activity, acid is created in the body. Life phenomena means, after all, the acidifying of our body.

The human body has blood which has a neutral pH of 7. In order to maintain this pH balance, we have to neutralize the excessive acid in the body. We also need extra alkaline, which is in minerals like potassium and sodium and so forth. Westerners drink milk a lot, so they're fine, but Japanese have to take minerals from seaweed. One cup of milk has 300 milligrams of minerals. If we put seaweed in miso soup, it has 120 milligrams of minerals.

This is not as good as milk, but 120 – 150 milligrams of minerals in miso soup every morning is very important. This is about half the amount of that

of milk, which is amazing. Miso soup with seaweed and various vegetables is a good source of minerals. I always recommend children who don't like vegetables or milk to eat miso soup with sea vegetables. However, weak or sickly children and their parents often do not take seaweed miso soup seriously. They think that eggs and milk are nutritionally better and that seaweed miso soup is not that important. This instance does not indicate that weak or sickly children or their parents are not ignorant. This is the responsibility of medical doctors or nutritional scholars. They are not edified and are unfamiliar with the research about the traditional Japanese foods such as miso.

At present, it is being both emphasized and proven that Japanese spirit and culture is not inferior to those in the Western world. I would like to see politicians, artists, and intellectuals evaluate traditional Japanese food such as miso instead of just economizing superficial aspects of Japanese traditions.

## XII. Bacterias:

Miso has many kinds of bacteria as an element. There should be lots of kobo bacteria and lactose bacteria. Elements of miso in the process of fermentation have been studied in relation to the taste of miso, but the functions of bacteria in the miso in relation to the human body or a nutritional value and medical effect on the human body have not been studied much. There are so many Japanese traditional foods that have not been scientifically studied. The Japanese people were surprised to learn that penicillin, which cures pneumonia quickly, is a kind of bacteria that can create blue mold. They were also surprised to learn that some people who make fermented food like sake know about this effect.

In the small and large intestine, as well as the colon, there are lots of bacteria. This is a natural thing. There are lots of beneficial bacteria in our digestive system that allow us to maintain our lives. The absorption of nutrients in the large intestine is facilitated by digestive liquid or secretions. But the enzymes of bacteria also do this. These bacteria have not been scientifically studied. *Bifidius* bacteria is commonly known; it has the strong ability to break down sugars. This type of bacteria is found in the colon.

Other than *bifidius*, it is believed that there are many other bacterias that help to break down protein and fat. Even from ancient Japanese times, health has been based on the strength of the digestive system. There is a saying in Japanese that “the hara is fulfilled or satisfied,” which indicates the signifier of Japanese health. This fulfillment is about the colon. Because the Japanese are herbivores, the function of the colon determines the person’s digestive ability. In the colon, we digest cellulose. In other words, our health depends on our ability to digest cellulose. That is the function of the bacteria in the intestine, especially the large intestine.

The bacteria in miso can contribute to this function. People who don’t have a strong condition have concave stomachs, which indicates that their hara is hollow. “The hara is fulfilled” means that the colon functions at its best to do its biological phenomena. Miso helps that function.

Japanese food has lots of fibers besides brown rice, barley, vegetables, burdock root, pickles, kelp, radishes, and so forth. The things that are considered good have lots of fibers. Japanese people’s health depends on whether or not we can digest these things. The nutritional value of miso itself, as I mentioned before, includes protein, fat, and minerals. However, miso also has bacteria that help the digestion of other foods, which is very important. This is what is called “mutual digestive function” between foods. When we do experiments on mice about this mutual digestive function, the experiments usually do not go well. This is because we take one food and observe the function of that food in the body of a mouse, and do not include other foods in the study. Miso soup can help other foods to be better digested. In that sense, miso is higher quality than chicken, eggs, and butter. Hot miso soup that is taken when we are hungry can help digest the food of the day. This is the mystery of miso. Miso can compliment the deficiency of animal products or function to break down excess animal protein for those who eat too much of it.

### XIII. Medical Considerations:

I may be repeating myself once again, but miso itself is a good quality food.

1. It can create an alkaline condition. Nowadays, there are so many diseases, many of which are caused by viruses. The health condition that has a lowered immunity towards these viruses is called the acidic

- condition. It might sound strange to say, but if you compare the alkaline and acidic conditions, the alkaline in fact has a higher immunity towards viruses. We are born with this condition, but we can change to a more alkaline condition by what we eat. It is a wise idea to eat seaweed miso soup every morning or at least twice a week. Seaweed is the best alkaline food, so naturally we should appreciate the nutritional value of seaweed miso soup.
2. It will prevent parasitic disease. It is proven that if our body has enough inorganic salt and fat, even when a parasite comes into our body from the mouth or through skin, it cannot grow in the digestive system. For example, in people who get ascariasis, for some, the parasite grows very rapidly in the intestine. But for others, the parasite does not increase in size. What is the difference between the two groups of patients? Also, we have to think about the salt, which is important. Breakfast is taken when we are hungry, as if we are breaking fast. Eating miso soup every morning means that we are taking miso when we are hungry, so it is most effective. Miso soup has fat, minerals, and salt; therefore, it is most efficient. This fact is obvious. In observing my patients clinically, I have found that those who eat miso soup every day rarely have parasite diseases such as ascariasis. In fact, we can say almost none.
  3. It improves weak condition of the body. Weak condition means that the body lacks minerals and has an acidic condition. This is caused by an insufficient amount of minerals in the body, which is in turn created or caused by excessive intake of animal products and sweets. It is very important to change this weak condition when people are children, because it determines the rest of their life. This was my hope. There are so many methods and approaches to change the condition. I tried various methods on my own body and tried them very hard. There are so many methods, and each individual has a different body, so if the method is difficult for a person to implement, then it is not practical. It is important to find an effective method that can easily adjust to our daily life. For example, some people take cold baths. With this method, maybe we can change the body condition. Some people try body scrubs with a cold water towel and can change their condition. But these approaches are not practical for sickly children. They cannot be done to the patient in a hospital or the whole family members. Some people say that exercising is good, such as

Japanese martial arts. I tried this approach, but this is not the first method to improve a weak condition. Weak and sickly children cannot do exercise. Changing diet is the best way to changing condition, which is why we have to start from childhood. Some nutritionists say to eat brown rice or eat five different kinds of vegetables, but extreme methods are not the way to change the condition. Eating miso soup with fried tofu and seaweed every day as a whole family without fail is the most effective way to improve weakly children's conditions.

4. A way to long life. From the dawn of human history, people have tried to find a medicine that increases longevity. For example, the emperor of an historical Chinese dynasty sent explorers out to find medicine for longevity in order to prolong his life. However, there is no medicine that can make us younger. Some hormone medications or energy drinks may have a temporary effect, but they can be harmful in the long run. There is no miracle to change the destiny of human aging. However, it is possible to live long and stay young via careful intake of food and managing of diet in our daily life. In Russia, there is a scholar called Mechinkofe who claims that preventing the decay of food in the intestines can prolong life. He encourages people to take lactic acid bacilli. This is an excellent finding. It is a proven fact that there are various kinds of lactic acid bacilli in miso. There are many studies about this lactic acid bacilli in miso because it is important in the process of fermentation study. However, it is not studied much in the medical field. That lactic acid bacilli will prevent the decay of food in the intestine and facilitate digestion: this is the medicine of long-life claimed by Mechinikofe. In the west, people eat fermented dairy food such as yogurt. In Japan, people eat miso. The difference between eating miso and eating yogurt depends on geography. Some of the monks in Zen Buddhism live long and look young even when they are very old. This is because their diet is based on miso. Japanese people eat miso and thus can live long. Some people go to Zen Buddhist temples to discipline themselves, but we can't enlighten ourselves by sitting as Zen Buddhists do. We have to eat miso soup as Zen monks do.

#### XIV. Conclusion:

Human problems that concern life, education, or disease all have something to do with health condition. Condition is what we are born with and what we create daily. We can create our own condition through the foods we eat and the environment we live in. Food and the environment have a strong, close connection, especially since Japan is an isolated island located between the monsoon belt and the Siberian continent.

Particular environments pass their particular dietary life and tradition from generation to generation. This is what is called the tradition of the ethnic group. There is a saying that the traditional food that the ancestors have eaten for generations is by itself precious because it is the domain of the ancestors' wisdom. To prove the quality of traditional food scientifically is our responsibility, the responsibility of their descendants. And even though we could not prove the value of these traditional foods scientifically, we cannot throw them away and consider them as "not good." Five grains and miso are what created the Japanese people's blood and flesh. In other words, because the Japanese people have been eating five grains and miso, and because this has been passed on from generation to generation, the Japanese people can survive and strive for more than several thousand years on this small island.

Then why we can't prove the value of miso scientifically? Or why is it not even considered valuable? This is because the medicine that we are learning was imported less than a hundred years ago, and we are still in a hurry to catch up to Western technology. When we catch a cold or have a fever, medical doctors often tell the patient to eat milk, soft boiled eggs, and bread. This is from a translation of German documents. When I said to a patient to eat miso soup, umeboshi, udon and somen, they and their family looked at me with surprised faces. They think, "this doctor does not know enough about medicine." But in fact udon and miso soup with tofu is the best when they have a fever. They actually practiced this, but did not realize the value of it.

Sometimes, worried mothers of sickly infants come to see me for a consultation. They say, "my child is weak and gets sick all the time. They don't like beef and milk and butter. I am in trouble," they say. And I say to them, "make them eat seaweed miso soup twice a week and miso soup with vegetables or fried tofu the rest of the week." Then the mother said, "just the miso soup?" They think that they don't have to eat miso soup.

I was sick all the time, beginning in my childhood. I worried my mother and my family members. My doctors said that I could not live past twenty, and when I reached twenty that I could not live to be thirty. In order to get away from my sickness, I pursued medicine. I studied medicine because it was such a part of my life. Now I reach to miso soup. A cup of miso soup of every morning is, I believe, the key to determining if we are healthy or unhealthy. The key of life is in miso soup.

#### XV. Bibliography

January 3, 1916	Born in Manzai-machi, Nagasaki City
March 1940	Graduated from Kyoto University Medical School
June 1940 to April 1941	Assistant to Dr. Takashi Nagai in the Department of Physical Rehabilitation, Nagasaki Medical College
June 1941 to July 1944	Physician at Takahara Medical Clinic
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