How Eating Light Can End Mad Cow Disease and Starvation

by **Mitsuo Koda, M.D.**

Edited and interpreted for English speakers
by
Hiroyuki Mori, Associate Professor at Osaka Kyoiku University
Brett M. Rhyne, Ph.D.

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Preface

Hiroyuki Mori, associate professor of political economy at Osaka Kyoiku University, have cherished the view that the opposite order of our society in which economy have priority over "lives" is coming to a deadlock and the society is certain to have the basis of the true equalitarian thought that all the "lives" live in coexistence and co − prosperity. He vigorously studies to establish a concretely explicable framework of political economy for the symbiotic age.

He was deeply moved by the pamphlet How Eating Light Can End Mad Cow Disease and Starvation I wrote, and translated it into English at once.

I express my heartfelt thanks for his service here.

I hope with all my heart that all those interested in this pamphlet in English version all over the world approve the purpose of our campaign the Japan General Medical Society just started, and make efforts in cooperation with us.

Mitsuo Koda, M.D.

President

Japan General Medical Society

June, 2002

Recommendations

Dr. Koda, famous both at home and abroad as a founder of the Koda Health Method, has maintained that eating light not only cures patients in the light of his clinical experience and study, but also saves starving people in the world. This pamphlet is a concrete expression of his great mercy to advocate the campaign of eating less meat for the report of 800 million people in starvation. Eating less meat is expected to save them as well as relieve so – called life style related diseases such as cancer, myocardial, cerebral infarction, diabetes, and allergic diseases. It is truly a case of killing two birds with one stone.

Starvation is not other people's affairs. We the Japanese cannot be too careful of it. In 2001, the news was made public that more than one million ha of rice fields should be left fallow and the cooperators be subsidized. Landed farmers in lonely villages are able to eat sufficient rice they grow without other revenue sources. However, if they let their fields fallow for long, they lose their jobs or find new ones at a distance although the subsidy is cut off in one year. It sounds like that the poor should eat nuts and grass roots or be on welfare. It seems like that our age should go back to the Edo period in which farmers were supposed not to eat rice.

The self – sufficient ratios of grains in North America, Canada and England are more than 100% and those in German and Italy are almost 90%. But that ratio in Japan is very low, ranking 145 of 164 countries. Nevertheless, why should the policy of cutting back on the acreage under cultivation be taken? Once fields are left unplanted, it takes 20 years to restore them, judging from the experience in England.

I wish that you will cooperate to practice the proposal by Dr. Koda for saving the currently starving people, considering that the necessity of eat less meat in this pamphlet is not an affair of other people.

Isamu Numata, M.D.

Permanent Honorary President

Japan General Medical Society

Recommendations

It is said that 38 countries are on the brink of starvation. The number of population in the world tends to increase especially in underdeveloped countries. Cultivated lands have been gradually turned into deserts and there appeared vast semi – desert areas. Worldwide food shortage and starvation will come within 10 years if no useful measures against this situation are taken.

Modern dietetics attaches great importance to protein, fat, and glucide on the basis of calories, and maintains that eating meats and sugar is indispensable to store and use energy. As a result, people has reduced the amounts of vegetables and grains to eat and increased those of animal protein, fat, and glucide in accord with levels of our economic affluence. For the past 50 years, the number of sufferers from life style related diseases in Japan has significantly risen as they took in lots of animal protein, fat, and glucide. The medical expenses have rapidly swelled from 4.8 trillion yen in 1973 to 41 trillion yen in the present. Koda clinic treats patients suffering from life style related diseases that modern Western medical science cannot cure. Many people come to Koda clinic for the first medical examination although they have to wait for it for 2 years with a nonplussed look. However, it is only natural that sufferers from intractable diseases flood Koda clinic after they visit more than a few hospitals because a lot of patients actually overcome their diseases through the method of eating grains and vegetables with low calories and failing to take in meats. It is important to recognize the necessary nutritional sources of dietary fiber, vitamins, and tasty amino acids. Dr. Koda himself lives a healthy life through a habit of taking in low calories. It is certain that the Japan Medical Association and the Japanese Society of Pathology should scrutinize this fact.

Todomu Nakashima, Ph.D.

Chairperson

Japan General Medical Society

Recommendations

According to biologists, human beings live on grains and vegetables in nature in the light of the forms of our teeth. So our eating habit is supposed to have changed toward meats through enlarging our sphere of life. It is impossible to consider a way of maintaining life and health apart from the eating habits characteristic of species and civilizations.

Japan has suffered from diseases that all the civilized countries do in common as our eating habit became similar to that of the West. Although the United States already suspected evils of their eating habit and started the attempt to decrease diseases incidental to civilization by means of eating less sugar and meat, Dr. Koda claimed their harmful effects a long time before. However, only a few in Japan's medical academic world listened to his claim. I am filled with deep emotion to see that alternative medicine, new dietetics, and holistic medicine are currently advocated as a form of reimport from Western countries.

The Japanese are different from the Western in length of intestines. Ours are suitable for grains and vegetables, not meats. The tendency of consuming less rice and more meat definitely exerts a great influence on physiological and disease structures of the Japanese. In fact, it is reported that many of the younger generation suffer from hardening of the arteries, allergies, high blood sugar and obesity, and the measures should be taken to deal with them. Physicians must be serious to reflect the fact before laughing at the theory of 40 years life expectancy as a hypothesis of laymen.

Dr. Koda is an educator and enlightener as well as physician. He has treated intractable diseases in medical field by his original methods of dietary cures, exercise cures and physical therapies, and amazingly improved their remedial performance. Koda clinic looks like Koda school where those patients who adore Dr. Koda get together. It shows with deep emotion that medical science should be benevolence and benevolence is the man. Dr. Koda teaches the younger generation at his alma mater Osaka University, and he himself practices the results of his study. Dr. Koda is really a man of seeking after truth. A medical treatment with one's whole personality is quite impossible only with superficial knowledge and wisdom.

Lessons from eating excessive meats are not restricted to the health and medical problems. Starvation may well spread on the earth if we continue to eat meats of livestock bred by grains and do not produce more than ten times of them. Even in the present 8 million people are suffering from starvation and most of them are women and children in poor countries. As Dr. Koda always says, "eating light saves the world" is a simple admonition for the arrogance of civilization as well as the evils of excessive eating. Though it is free to regard BSE as only a contagious disease or a heavenly warning, we must be asked to reflect what the dignity of life is on seeing millions of cows thrown out like wastes.

As a doctor and a man, I sympathize with Dr. Koda about his inquiry and warning on meat eating. I cannot help admiring him for his attitude to continually appealing to the public the crisis of civilization and life from the viewpoint of the whole earth besides his activities of medical treatment and education and enlightenment. I recommend you this pamphlet, hoping that you take the content seriously and make use of it as a criterion for our future.

Eiho Tanegashima
Vice President
Japan General Medical Society

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I. Population and starvation.

At the1996 World Food Summit, held in Rome, delegates from around 170 countries discussed global food problems. The report presented at the summit concluded nearly 800 million people are now suffering from starvation: 500 million in Asia, 200 million in Africa and 100 million in other areas. Disturbingly, 200 million of those starving are children aged five or younger. Participants considered from various points of view how to alleviate their suffering. At the summit's close, they agreed to the goal of halving the number of starving people by the year 2015. The five years since the summit, though, has not seen a decrease in the number of those starving. Quite the contrary: world population will grow explosively in the near future, and so will the number of starving people.

At present, the world population is about 6.1 billion. That figure should increase to nearly 8 billion within 25 years. Within 50 years, world population should be nearly 9.3 billion, an alarming increase of 3 billion people, or 1 − 1/2 times the present population.

To make matters more serious, the population of developing countries should increase at a much greater rate than in developed countries. It follows that an increasing number of people will suffer from starvation, since the countries with more sufferers of starvation will experience a larger increase of population.

Obviously, the demand for food will increase along with the world' s population. Every nation is anxious about whether it is possible to increase food production sufficiently to provide for everyone.

II. A dark future for increasing food production.

Several negative factors seem to indicate global food production will decrease rather than increase. Those factors include a decrease in cultivated acreage, an increase in the amount of meat eaten and other detrimental environmental factors.

1. Decrease in cultivated acreage.

In developing countries enjoying steady economic growth and facing a population increase, cultivated acreage is decreasing through the development of agricultural land. China, for example, currently produces enough grain to meet its domestic demand for food and exports the

surplus. However, this is changing. China's population current is approximately 1.3 billion and may grow to 1.5 billion within 20 years. Even state policies to decrease the birth rate will not prevent this population increase. At the same time, China has maintained an economic growth rate of, remarkably, 7 − 10% every year for ten years. This population increase and economic growth has caused not only Chinese urban areas to be rapidly developed, but the Chinese countryside as well. Is it any wonder visitors to China remark with surprise, "This is utterly different than it was ten years ago."

In addition, the number of cars owned by the Chinese has risen in proportion to China's economic growth. Currently, there are approximately1.3 million cars in China. If the pace of China's economic growth continues unchanged, half the Chinese will own Western − style cars. That is to say, the Chinese will drive 750 million cars. This is critical, since we currently drive about 520 million cars worldwide.

Besides the vast ecological damage caused by so many more automobiles in the world, such an increase in the number of Chinese cars will be a logistical nightmare. One problem will be creating enough roads and parking spaces to accommodate the cars. Inevitably, the Chinese will develop enormous tracts of agricultural and cultivated land to solve this problem. As a result, the supply of food will soon be unable to satisfy demand, and China will change from a food exporter to a food importer.

2. Increase in the amount of meat eaten.

Chinese eating habits will further complicate the issue. As people in developing countries become more affluent, they tend to adopt Western − style diets. They eat more meat, replacing grains and vegetables. China is no exception. The Chinese have recently come to eat far more animal − based foods such as meat, eggs and fish. The problem with this is that 8kg of corn are required to produce1kg of beef. Therefore, as the amount of meat consumed increases, it becomes even harder to supply the amount of grain sufficient to feed the population. One recent report indicates that by 2015, China will no longer be exporting grain, but will be importing 175 million tons of grain annually. There is no telling how or where so much grain will be produced, or which countries can afford to export it.

3. Environmental factors.

A decrease in arable land due to the rising temperature of the Earth is a significant contributor to the coming food shortage crisis. Atmospheric temperature continues to rise at an alarming rate : the Earth's temperature rose an average of 0.6 % throughout the 20th century. Scientists consider the so – called 'greenhouse effect,' caused by the increased amount of carbon dioxide (CO_2) in the atmosphere, to be the primary cause of the Earth's rising temperature. The burning of fossil fuels creates CO_2.

Long before the Industrial Revolution, the amount of CO_2 in the atmosphere had been about 280 parts per million (ppm). As the Industrial Revolution accelerated humans' consumption of fossil fuels, though, the amount of CO_2 increased rapidly. Currently, the amount of CO_2 in the atmosphere is nearly 360 ppm, an increase of 77 %. If human consumption of fossil fuel increases at its current pace, scientists predict levels of CO_2 in the atmosphere will rise to 550 ppm, nearly double the amount of pre – industrial Earth, by the end of this century. Such CO_2 levels could raise global temperatures by as much as 5.8 %. This will cause significant amounts of ice on the North and South Poles to melt, elevating sea levels abruptly. Subsequently, coastal areas throughout the world will be permanently flooded ; almost 70 % of low – lying areas along the coasts of Japan will be submerged, for example, as will many whole islands in the Pacific Ocean. As a result, the amount of cultivated acreage will shrink, costing the world an enormous amount of agricultural products.

While sea water levels will increase, there will be a global shortage of potable water available for human consumption and agriculture. Within a quarter century, human population should be approximately 8 billion. The World Water Conference, held in 2000, warned that 3.2 billion of us – four out of every ten people – will suffer from a serious water shortage. With agriculture currently consuming two – thirds of all water, a choice will have to be made between providing water to drink and water for food production ; a reduction in either area will massive losses of human life, either through thirst or starvation. Currently, several regions face water shortages that restrict agricultural output. Mongolia is one. The western United States is another : production has declined as the water level of the aquifer,

the vast underground lake from which irrigation is drawn, has dropped. In China and India, the need to increase food production to feed growing populations has forced cultivation of land too close to the sea ; salty sea air, though, destroys the arability of the land.

The expansion of desert areas globally also decreases the amount of land suitable for farming. A recent survey reported that 6 million hectares of land become desert annually through a number of causes. Such widespread desertification decreases the amount of agricultural land, leading to a decrease in agricultural production. It is vital for us to take some action on the global level plan to stop the spread of desert areas and restore green plains, although it is, no doubt, one of the most difficult tasks facing us today. It seems unlikely the present situation will improve in the near future.

In addition to the factors mentioned above, other well – known factors such as acid rain and the destruction of the ozone layer at the South Pole will also have great influence on future agriculture. Acid rain, for example, has already reportedly caused widespread damage in Western and Northern Europe ; visitors to the German Schwartzwald (Black Forest) must see the changes there. Equally great or perhaps greater is the damage caused by acid rain to crops across Europe.

Human beings will suffer serious food shortages in the near future if we do not take proper measures.

III. Preventive measures against BSE.

1. What is BSE?

BSE is Bovine Spongiform Encephalopathy, commonly known as Mad Cow Disease. BSE first appeared in England in 1986. Since then, over 180,000 cows have died of BSE. The symptoms mainly appear in nerve cells. As BSE spreads throughout an animal's body, the animal suffers fits and convulsions, which gradually worsen. Increased motor imbalance brings about difficulty of walking, ultimately and irreversibly leading to death.

Prion protein, a kind of protein similar in structure to a virus, causes BSE. Prion proteins exist in both cows and human beings ; in their normal form, they are harmless. When prion proteins undergo changes on the cellular level and become scrapie – type proteins, however, they cause BSE. Although cellular prion and scrapie – type

proteins are both amino acid 253, they differ in their solid structures (**Figure 1**).

Figure 1 Different Structures of Cellular and Scrapie – typePrions

	Cellular	Scrapie – type
α – herics	42%	30%
β – seat	3%	43%

The protein – digesting enzyme lysosome can break down cellular prion protein ; no protein – digesting enzymes, including lysosome, can break down the scrapie – type protein. In addition, scrapie – type proteins are very resistant to heat, acid, or boiling in water. (It takes an hour to break down scrapie – type proteins through heating in 132oC water ; ordinary pressure cookers and the like are not effective against it.) This is quite different from other germs. For example, a colon bacillus like O – 157 is completely after a minute of 75oC water. Scrapie – type prion proteins are also resistant to ultraviolet rays, which normally kill other germs. These are the reasons humans are hardly treatable once infected with a scrapie – type prion protein like BSE.

2. How does BSE work?

Normal cellular prion proteins combine with copper and stick to nerve cell membranes harmlessly. Scrapie – type proteins, though, destroy and kill the nerve cells to which they attach. Scrapie – type proteins also adhere to normal prion proteins and convert them in the scrapie kind. In this way, scrapie – type prion proteins devastate one nerve cell after another, making holes in the brain until it is in a sponge – like state. This is how the disease came to be called Bovine Spongiboron Encephalopathy. Cows infected with BSE have scrapie – type prions in their brain, spinal cord and eyes. If we eat infected cows (entrails and the like), the prions enter our bodies and we, too, may contract BSE.

Currently, we do not know from which parts of the cow an infection of BSE could spread to a human. If scrapie – type prion proteins exist in other utilized parts of the cow such as the placenta, skin, heart, stomach and spinal cord, then we should pay particular attention to the danger of items produced from those cow parts. If we discovered

BSE in products such as cosmetics, health foods with calcium, various kinds of seasonings and so forth, then there would be a global social problem. We will know before long whether or not other parts of the cow contain scrapie – type prion proteins.

Cows that contract BSE carry scrapie – type prions from two to four years ; by contrast, humans carry them for up to eight years. There are already reported instances of human diseases with symptoms quite similar to those of BSE. Drs. Creutzfeldt (1920) and Jakob (1921) were the first to offer case reports with clinical diagnoses, and gave their names to Creutzfeldt – Jakob Disease (CJD). However, there are differences in symptoms between BSE and CJD : for example, BSE attacks relatively younger people than does CJD, and those who contract BSE display some different brain wave patterns than do CJD sufferers. Therefore, we sometimes call BSE 'Variable Creutzfeldt – Jakob Disease (VCJD).'

3. Current medical treatments for BSE.

We have not yet developed an effective cure for BSE in humans because of the difficulties in breaking down the scrapie – type prion protein. Currently, people who contract BSE have no hope of recovery. Medicines incorporating lysosome, an enzyme known to break down cellular prion proteins, are potential avenues of treatment. Chloropromazine, which works for mental diseases, may have some effect. Another study reported that quinacrine, a medicine for malaria, had good effect. Although early tests have been positive, it is not yet certain how much effect these chemicals will have in reality. Research in creating antibodies to fight scrapie – type proteins is running into difficulties, since the antibody confuses cellular prion and scrapie – type proteins due to their structural similarities and attacks the two indiscriminately.

4. How cows acquire BSE.

The industrialized method of raising cattle promotes the spread of BSE. By nature, cows are herbivorous and do not feed on other animals. Nevertheless, the practice of feeding cattle powdered meats and bones of other cows is widespread, because it stimulates the growth and improves the quality and taste of cattle. The number of breeders using powdered meats and bones has also risen because, ironically, they are cheaper feed than grains. Feeding uninfected cattle

powdered meats and bones of cattle infected with BSE is the leading cause of the spread of BSE among animals. The best way to prevent BSE must be to stop this unnatural feeding process and allow cows to return to their herbivorous eating habits. If the people of the world adopt an eat－less－meat diet, as I am proposing, we will raise fewer cows for food. Cattle breeding methods will become more natural and will therefore help prevent the abnormal disease BSE.

5. BSE in Japan

Mad Cow Disease is currently the greatest social problem in Japan. Previously, we had thought, optimistically, "Japan is safe from BSE." The appearance of the disease in September 2001 threw Japanese society into an uproar; people everywhere criticizing the government for neglecting the threat and not creating policies to address BSE. Upon the arrival of BSE, the Japanese government set about examining all the cattle in the slaughterhouses for the scrapie－type prion protein causing BSE. The government officially declared Japanese beef free from danger, but many people do not believe this.

IV. The benefits of an "eat less meat" campaign.

It is said the Twenty－First Century must be an Age of Symbiosis. What does this mean? It means human beings live a life of coexistence, cooperation and mutual benefit with all living things: animals, plants, microorganisms and other human beings. It means casting off the existing discriminative dogma, "Only humans are important." In other words, it is a life based on the concept advocated by Japanese critic Ryu Ohta, who argues, "All creation is equally important." It follows, then, that the habit of people in developed countries of eating so much meat is unsuitable for a symbiosis age.

Now I would like to propose that we decrease by half the amount of meat eaten globally and carry on an "eat less meat" campaign throughout the world. This campaign will not only greatly promote human health and solve food shortage and environmental problems, but will also prevent the spread of BSE.

The volume of beef eaten in Japanese society has rapidly increased for the past half century. Nowadays, a typical Japanese eats 90－100g of beef per day. (While the volume of beef sold for consumption temporarily decreased upon the discovery of BSE in Japan, beef consumption has already started returning to its pre－September, 2001 levels.) 100g of beef eaten by a normal Japanese per day would amount to about 36kg per year. If a normal Japanese continues to consume that volume of beef for 70 years, he would eat nearly 2.5 tons of beef throughout his life. This is roughly equivalent to seven cows. Taken together, 125 million Japanese would eat an astonishing 875 million cows.

Beyond Japan, the numbers are even more disturbing. People in developed countries eat an average of 210g of beef per day, or 78kg annually. Considering that is about twice as much beef as the Japanese eat, the amount of meat consumed by the rest of the developed world may well need to be decreased to one－third. On the other hand, people in underdeveloped countries eat an average of about 40g of meat per day, or 14kg annually. That is still less than half the beef consumption of a typical Japanese.

1. Eliminating starvation.

Eating less meat can save 800 million people currently suffering from starvation. People all over the world, especially those in the developed countries, should halve the amount of meat currently consumed. Accordingly, the amount of the corn or wheat used for cattle feed will also decrease. Currently, world production of corn is about 600 million tons, 400 million of which－two－thirds－is used as feed for cattle and the like. Halving beef consumption would therefore enable us to save 200 million tons of corn, which we could then distribute as food. Each of the 800 million starvation sufferers could receive 600g of corn per day, or 240kg per year. 600g of corn have about 2,400 kcal, which is adequate daily sustenance for one person. (Considering the fact that even starving people have a little something to eat, distributing 500g of corn per person would be enough.) Distributing 240kg of corn per year to each of 800 million people comes to 192 millions tons, which is still less than the 200 million tons of corn saved by halving the amount of meat eaten. Furthermore, this solution to ending world starvation is completely within our power to enact, as soon as we decide to halve the amount of meat eaten.

2. Reducing illness and consequent medical spending.

Recently, so－called lifestyle－related diseases (diseases originating

from habits of living) are big issues in Japan. Medical researchers have proven that living habits over a long period are some of the main causes of such adults' diseases as cancer, apoplexy, cardiac infarction, diabetes and obesity. Eating habits have also attracted much more attention of late. Many medical scientists have vigorously studied which eating habits (quality, quantity, time and so forth) are beneficial or detrimental to our health. For example, even though people paid little attention to them, we have known for some time the imperative functions for keeping good health of vegetables, seaweed and fruit. As people learned this knowledge, though, the number of people eating vegetables has increased along with the recent fad of vegetarian diets. Conversely, scientists identify foods such as meat and eggs as the causes of cancers (catarrh cancer, breast cancer, prostate cancer, uterine cancer, etc.), apoplexy, cardiac infarction and so forth. Therefore, the traditional Japanese diet is now valued as excellent "health foods" all over the world.

If people halve their amount of meat eaten, the degree of illness throughout the world will permanently decrease. At a minimum, an "eat less meat" diet will drastically decrease the incidences of typical lifestyle－related diseases like cancer, cardiac infarction, apoplexy, adipose liver disease, diabetes and gout. As a result, the average lifespan will be longer.

The marked decrease in patients may well bring us more good news in the form of a great economic effect. Presently, the total medical expense in Japan, for example, is approximately 31 trillion yen. The government estimates it will grow to 60 trillion yen within 15 years and 81 trillion yen within 25 years. Where will we find the financial sources to cover such an immense expense, though, especially considering Japan's recent economic troubles? Eating less meat will address both the health and economic issues surrounding our current excessive consumption of beef.

3. Improving the environment.

Scientists consider excessive carbon dioxide (CO_2) produced through industrialization as the main cause of global warming; most countries are now concerned with the limiting of CO_2 emissions. The "eat less meat" campaign should control the production of CO_2.

Currently, we raise an estimated15 billion head of cattle. The grasslands upon which they feed are gradually becoming barren and turning into desert. As global desertification increases, our environmental problems get worse. Mongolia's growing desert, for example, forces that country to graze its cows, sheep and goats in cultivated areas. Halving the amount of meat consumed reduces the number of cows grazing, allowing plains, grasslands and forests to return gradually from their ruined conditions. Once restored, these verdant areas can help reduce the greenhouse effect through natural processes of photosynthesis by absorbing CO_2 and returning oxygen to the air.

Cattle also contribute to global warming through their production of another greenhouse gas, methane. Methane gas has 56 times as much warming effect as carbon dioxide. Cows release methane through belching and flatulence. Therefore, halving the number of cattle to 7.5 billion will slow the rising of atmospheric temperature.

According to Japanese researcher Shunsuke Funase, 71 billion tons of cattle－related CO_2 comes from cattle－related sources. Halving the number of cows raised for food would cut that figure by about a fifth (22%). Even if 22% is an exaggeration, a 10% cut in CO_2 can be a powerful solution for our environmental problems.

4. Living a life of love and mercy.

Nearly 4 million years have passed since human beings first appeared on the earth. When we competed with other species for survival, we developed a discriminative ideology: "Only humans are important." In the industrialized world, we continue to live our lives according to this principle. We exploit other living things for our own purposes, cultivating some creatures and mercilessly exterminating those we consider hindrances. For example, we have sprayed chemicals such as DDT, BHC and CNP (a herbicide containing the deadly chemical, dioxin) to exterminate insects in agriculture and developed antibiotics to kill disease germs. Organisms in the wild have evolved in response to our efforts to eradicate them, though, mutating into life forms even more virulent and dangerous to humans. Through our outdated, anthropocentric orientation, we have created a world more dangerous not just to humans but to all living things.

Is our current dilemma some kind of divine judgment for our hubris in thinking only of ourselves and not of all the life on this planet?

We should not continue to believe it is okay for humans to kill other living things, as we like. Twenty－five hundred years ago, Buddha Shakyamuni taught a true concept of equality, striving for coexistence and mutual symbiosis with all living things. Now is the time for us not only to understand but also to practice this philosophy seriously. We must lead a life believing, "All living things are equally important." We must not take lives wastefully. Is it tolerable for us to continue the egotistic habit of recklessly killing and eating cows for our own consumption?

5. Compensating cattle industry workers.

While halving the amount of meat eaten globally will have many positive effects, an "eat less meat" campaign will certainly have an adverse economic effect on those who earn their livelihoods in the cattle industry, stockbreeders and butchers. To offset this, governments throughout the world should enact policies to compensate cattle industry workers for their losses, at least until they develop other sources of income. The money for such programs could come, for example, from the lowered medical expenses resulting from healthier diets of less meat and eating light.

In addition to compensating workers in the cattle industry, governments throughout the world should also become more involved in the "eat less meat" campaign. Although this campaign is essentially a magnificent and global struggle, it must begin small, with individual efforts. The campaign will then, hopefully, grow from the activities of volunteers and private organizations into nationwide movements and, ultimately, a worldwide movement.

V. How to eat less meat.

Having established the necessity for human beings to eat less meat, the question becomes, how do we do this?

I believe the answer lies in my program of "Eating light, eating right." It stands to reason that the simplest way to eat less beef is not to replace meat with other foods, but to eat less food overall. Indeed, there are so many health benefits to eating light that in the course of my many years of clinical experience, I have come to believe most sincerely that, "Eating light is the origin of health."

1. Eating light is not a fad.

There are many kinds of health programs in the world. Nowadays, new fads cause a great variety of "health programs" to appear in magazines and books and be disseminated. However, if those who undertake a health program and gain even a relative measure of good health cannot eat light－by continuing to eat their fill or overeat －they will probably contract a disease. That is because Heaven does not allow us to gain a healthy long life without eating light. Eating light is a concrete expression of love and mercy by not wasting the lives of animals and plants. Heaven gives the happiness of a healthy long life to those who obey the love and mercy of eating light. As a law of nature, this is only one example. Both Buddha Shakyamuni and Jesus Christ taught us that the practice of love and mercy is the way to be happy. Eating light is the practice of love and mercy in our eating habits. Therefore, Heaven, in the form of giving us diseases, warns us against killing animals and plants carelessly through excessive eating and selfishness. We have to realize that we cannot live a healthy long life at all unless we put eating light into practice. Eating light truly is the origin of health.

Indeed, by following my program, patients suffering from intractable diseases (collagen disease, rheumatism, bronchial asthma, chronic nephritis or the like) returned to good health and admirably reentered society. I explain this in detail in my books Real Health Starts With Eating Light (Tama Publishing Company) and Eating Light, Eating Right : Eating Light To Save Our Planet (Shunjusha Publishing Company). These books describe how happiness of living and aging in good health, as well as just regaining health, can be obtained through the practice of eating light and eating right.

2. The benefits of eating light.

A program of eating light and eating right has a variety of effects:

- Developing resistance to fatigue and increasing stamina.
- Reducing time spent sleeping.
- Activating bowel movements and excreting shukuben (non－excreted residue left congested within the intestinal tract when one surpasses the digestive capacity of the stomach and intestines), which I believe to be the cause of all diseases.
- Developing a good memory and sharpening the mind.

• Getting rid of cold hands and feet and attaining beautiful skin.
• Easing allergic diseases such as atopic dermatitis and pollenosis.

By considering these benefits, we can see that "Eating light causes no disease." The Edo－era fortune teller Nanboku Mizuno once said, "Eating is your life." This means that those who practice eating light and eating right improve both their health and their fortune. Kenzo Futaki, the first president of the Japan Synthetic Medical Society, and Isamu Numata, the Society's former president, also taught this philosophy. Thus, eating light and eating right is also the traditional "health program" of the Japan Synthetic Medical Society.

3. Importance of food quality in eating light

The lighter a diet we maintain, the more selective we should be in what we eat. We should always strive to eat whole foods. So, for example, we should select and eat brown rice rather than white, rye bread rather than white, brown sugar rather than refined, small fish (including bones) such as dried whitebait and sardines rather than big fish such as yellowtail or tuna. Germinating brown rice has recently become more popular and an increasing number of people have become fond of it; the book Advice To Eat Germinated Brown Rice was recently published under the supervision of Japan Synthetic Medical Society former President Isamu Numata. Germinated brown rice contains many more valuable nutritional elements than the original brown rice and cooks easily with a normal rice or pressure cooker.

In addition, in consideration of environmental pollution, all people should strive to create as little garbage as possible. In other words, we should consider ecology in our eating habits. We should cook vegetables so that we can eat their roots and leaves wholly. Now, eating the rind and roots of vegetables may cause some concerns regarding the consumption of agricultural chemicals and chemical fertilizers. For that reason, it is wise of us to select vegetables cultivated through organic or natural farming, so that we may avoid agricultural chemicals and chemical fertilizers as much as possible.

4. How humans contract BSE.

In addition to helping the world eat less beef, eating light, eating right and fasting can effectively safeguard individuals from contracting Mad Cow Disease. To understand how this happens, we must examine the physiological effects of eating light.

After digestion breaks down proteins into amino acids and short－chain peptide molecules, we absorb the nutrients through miniscule openings in the walls of our intestines. These openings are too small to allow germs or viruses to pass through. Germs, such as colon and typhoid bacillus, are the size of microns (one－millionth of a meter, or a micrometer). Anthrax, for example, is 8 microns. Viruses, one thousand times smaller than germs, are the size of nanometers (one－billionth of a meter). The viruses hepatitis A and hepatitis B, for example, are 27 nanometers and 42 nanometers, respectively. The scrapie－type prion protein (amino－acid 253), the cause of Mad Cow Disease, is smaller still than a virus. If a virus was the size of a soccer ball, a prion protein would be the size of a table tennis ball.

Normally, even such small substances cannot pass through a healthy intestinal wall, because they are too large. When the intestinal mucous membrane is inflamed, though, longer－chain proteins can pass into the body. If there are wounds in the intestinal mucous membrane, proteins in our foods are absorbed into the body before being broken down into amino acids. "Thieves" (allergens such as ticks and pollens, as well as the scrapie－type prion protein that causes BSE) break into the body through wounds in the intestinal mucous membrane, a so－called "unlocked door."

Many people throughout the world have wounds in their intestinal mucous membranes. People suffering from allergic diseases like atopic dermatitis, hay fever and food allergies are sure to "lock the door imperfectly." Dr. Shizuko Kawabe of the pediatrics department of Gunma University conducted some illustrative research in this area. He gave egg whites (the egg protein) to a mother whose infant suffered from food allergies. Thirty minutes later, Dr. Kawabe detected the egg protein in the mother's breast milk. When given this milk, the child's allergic eczema grew worse. Dr. Kawabe concluded that mothers with a child suffering from food allergies should not eat egg whites.

The crucial question, though, is why did the egg protein come out in the mother's breast milk after she ate the egg white? Egg proteins are normally broken down through digestion in a mother's intestines and absorbed into the body the form of amino acids. Without being

broken down, egg proteins themselves cannot pass through the intestinal mucous membrane. So the fact that the long－chain molecules of egg protein were absorbed into the body and came out in the breast milk means the mother's intestinal mucous membrane was wounded and not completely locked.

This research implies that people suffering from allergic diseases do not lock the door completely ; that is to say, they have wounds in their intestinal mucous membranes. This is a serious social situation in Japan, for example, because about one third of the Japanese are estimated to have allergies. If they eat the BSE－causing brains and spinal cords of cows and allow the scrapie－type prion to get into their intestines, they are likely to absorb the prion into their bodies through their intestinal walls.

Dr. Kyoko Takaku, a pediatrician at Syowa University Medical School, studied how allergic and healthy infants absorbed protein molecules. She divided the babies into two groups, 36 allergic infants and 24 healthy infants, and put the two groups on two types of sugar proteins, rhamnose and lactulose. Rhamnose molecules are so small they can easily pass through intestinal walls and be absorbed into the body. Therefore, we excrete them through the urine, not the feces. On the other hand, lactulose molecules are relatively large and cannot enter the body through healthy intestinal walls. They normally pass through the intestinal tract and leave the body through excreted feces. A person with a sound intestinal mucous membrane will show no longer－chain lactulose molecules in their urine.

Dr. Takaku's results are illustrative. She found a lot of rhamnose (short－chain) molecules in the urine and only a few in the feces of both allergic and healthy infants. But Dr. Takaku detected larger amounts of lactulose (longer－chain) molecules in the urine of the allergic infants, while she did not find them in the urine of the healthy infants. These results can be interpreted to mean that the intestinal mucous membranes of the allergic infants were unsound with wounds and inflamed ; with "the door unlocked," the longer－chain lactulose molecules trespassed into the body from there. This experiment indicates that people with allergies should consider whether their intestinal mucous membranes are healthy or wounded.

These findings are borne out by the work of Dr. Manabu Koguchi,

a pediatrician at Juntendo University Hospital. Dr. Koguchi examined the mucous membranes of the small intestines of six infants suffering with food allergies. He found inflammation, atrophy of villus and papillary of crypta on the epithelium of all their intestinal mucous membranes. Again, such damaged intestinal mucous membranes allow longer－chain protein molecules to pass into the body. When these "thieves" (allergens) break into the body, the number of "policemen" (antibodies) increases to capture them. This is the mechanism of allergies.

If people with damaged intestinal mucous membranes eat the brains, spinal cords, eyes or other parts of BSE－infected cows, the scrapie－type prion proteins pass through their intestines and into their bodies without difficulty. If one's intestinal walls are sound, though, even if they allow the scrapie－type prion proteins to enter their intestines, the prions cannot enter the body and so exit with the feces. BSE only infects people with wounded or "unlocked" intestinal walls.

5. What damages intestinal walls?

The eating of too much food and food that is too rich are the most common causes of damage to intestinal walls in humans. In Japan, for example, dietetic scholars have advised people to maintain their blood sugar levels ; so, people eat breakfast, lunch and dinner ; they also eat rice cakes stuffed with bean jam at 10 in the morning and 3 in the afternoon, as well as consuming milk or fruit before bed. It is not surprising, then, that over one－third of Japanese suffer from food allergies : it is likely they have wounded intestinal mucous membranes if their stomachs and intestines are always digesting rich food.

Overeating in this manner also causes the buildup of shukuben, non－treated excess waste left congested within the intestinal tract. Shukuben can remain in the intestines for months or even years, increasing the number of harmful germs as the excess waste rots and ferments. These germs injure the intestinal mucous membrane. Current dietetics eagerly studies the intake of nutrients, but is less attentive to the prevention of damage to and the healing of the intestinal mucous membrane. Given the current diets of most people in the industrialized world, it is a matter of course that more and

more people should develop unsound intestinal mucous membranes. The potential for many people to contract BSE, then, is great.

The most effective preventative measure against BSE is avoiding beef, but not everyone can practice abstinence because they like meat too much. For these people, in addition to halving the amount of beef eaten, they should develop the habit of eating light and fasting in the morning, in order to make healthy their intestinal mucous membranes. This way, we rest the intestines through eating light and fasting, and give the wounds in the intestinal mucous membranes a chance to heal.

6. Making the intestinal wall sound by eating light and one－day fasting.

From my long clinical experience, I am keenly aware that, "Real health starts with eating light." Readers interested in this topic can refer to my books Real Health Starts with Eating Light (Tama Publishing Company) and Eating Light, Eating Right: Eating Light To Save Our Planet (Shunjusha Publishing Company). Recently, many people have introduced new kinds of health programs, which have caught on as fads. However, those who cannot eat light and continue to overeat and eat rich foods are certain to contract disease, even if they carry out a helpful health program.

BSE is not the only ailment prevented through eating light and occasional fasting. Eating light lowers high blood pressure to a normal level and cures such diseases as diabetes, fatty liver and obesity. Eating light and occasional fasting also cure allergic diseases like pollinosis and atopic dermatitis without exception, because these practices restore the intestinal mucous membranes to good health. Likewise, the scrapie－type prion protein, the infective cause of BSE, is unable to pass through a healthy intestinal mucous membrane. We should eat less and fast until we develop a treatment for BSE. Again, I want to emphasize that eating light is a concrete expression of love and mercy by not killing the lives of animals and plants wastefully. Heaven gives the happiness of a healthy long life to those who exercise love and mercy by eating light.

7. How to eat light.

When starting a practice of eating light, it is helpful to remember the old Japanese adage, "We won't consult a doctor with eating until 80% full." In other words, people who are accustomed to overeating

should only strive to eat 80% of their normal diets. Even this 20 % reduction in food intake can have significant health benefits.

Dr. Seiki Tatsume, a lecturer in the department of microbiology at Tokai University, researched the average life span of mice with varied feeding plans. He divided the mice into two groups, allowing group A to eat until full and limiting group B to 80% full. His experiment showed the average life span of the mice of group A was 74 weeks and that of group B was 122 weeks.

As Dr. Tatsume's study indicates, reducing consumption to 80% of full eating certainly has a good effect on health. However, preventing BSE requires eating to only 70% of capacity. (Those of exceptional ability may succeed in eating only 60% of capacity.) Still, it is very difficult for those who are accustomed to eating to excess to eat so lightly. My advice is to decrease our food intake little by little at our own pace; eating lightly so suddenly is sure to produce failure.

I have two suggestions to help people adjust to eating light:

- **Skip a meal.** As a practical way of eating light, the principle of two meals a day without breakfast is definitely easier to carry out. The trouble is that modern medicine strongly objects to skipping breakfast, so this may seem difficult to people at first. Nevertheless, if one is going to miss a meal, breakfast seems to be the easiest meal to skip.
- **Fast for one day.** Next, I would advocate one－day fasting about twice a month. Those who undertake this one－day fast should consult my book, *Fasting Health Method at Home* (Sogen Publishing Company). Once you get used to it, one－day fasting twice a month is easy; even one－day fasting on a weekly basis turns out to be no problem. Furthermore, if you were to fast once a week for five years, you would improve your constitution and have extraordinarily good health. Of course, such a program would also encourage sound intestines, preventing the scrapie－type prions from entering the body and promoting their excretion in feces even if you were to consume BSE －infected beef.

What we should keep in mind is that the lighter the diet we maintain, the more selective we should be in what we eat. This point is crucial. I recommend sesames, beans (soybeans, fermented soybeans,

tofu, *yuba*, red beans and so on) and seaweeds (tangles, *wakame*, *hijiki* and so on) in addition to the whole foods proposed before. If you select and eat good foods every day, there is no need to worry about under－nourishment.

Modern dietetics maintains we should eat "30 kinds of foods a day." This is unnecessary ; even half of 30, about 15 items, can form a good diet. The reason people have to eat 30 items a day is because they eat parts of foods, not whole foods. People just eat appetizing parts, throwing away important, nutritious elements like skins, bones and internal organs. People have to eat at least 30 items because they choose white rice over brown, white bread over rye, refined sugar over brown, parts of big fish such as yellowtail and tuna over the entirety of small fish such as sardines and anchovies. When eating non－whole foods, nutrition as a whole may be imbalanced.

Outmoded ways of thinking, based on anthropocentric and discriminatory philosophies, inform eating habits like this. They are unsuitable for a symbiotic age. On the other hand, a diet making use of the whole "life" is very right for this age. Given the starvation and the health and environmental problems facing the world today, it seems crucial to develop ways of raising, distributing, cooking and eating food appropriate to all living things on earth.

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Recommendations

Do you realize how wonderful eating light is? Eating light is a concrete expression of love and mercy to fail to kill "lives" of animals and plants wastefully.

After the Second World War, Japanese people were in starvation. Concerning proteins and vitamins, we copied the eating habits of Western countries and have recklessly continued excessive eating. As a result, there appeared a number of malignant and strange diseases that have caused both doctors and patients great distress. It is quite uncertain for us to die of old age in good health. Though numerous kinds of health methods created as symptomatic treatments sell instruments and equipments for gaining health, a true health cannot possibly be acquired without knowing our original figure.

Dr. Koda says, "The rule of the universe is one. Both Buddha Shakyamuni and Jesus Christ taught us that the practice of love and mercy is the way to be happy. Eating light is the practice of love and mercy in our eating habits. Practicing eating light (right) to a habit promises that we can live a healthy long life at all as well as be in good health." Here the wisdom to select good foods in quality is needed. This pamphlet is full of the wisdom and knowledge.

We the Japanese were brought up to eat up all the dishes served for us, but we have never trained to fail to kill as many animals and plants as possible. This pamphlet guides us to what we should eat as the minimum requirements of diets (quality, quantity, time) and how we should practice it.

The total medical expense in Japan is currently about 31 trillion yen, estimated to increase to 81 trillion yen 25 years later.

We should consider that it would promise a wonderful future for human beings to practice and continue the eating habit full of love and mercy led by Dr. Koda, change our present life style, and live together in mutual prosperity with all the "lives" on the earth. Do you know the movie "Back To The Future"? It is impossible for us to return to and undo the past time when our fate is affected.

I hope you switch your ways of living toward a wonderful future as soon as possible through this pamphlet.

Kozo Yamaguchi
Permanent Director
Japan General Medical Society

Recommendations

Dr. Koda fills this pamphlet with immense contents though it is only about 30 pages. He indicates that 8 million people are in starvation and this number is going worse owing to the population increase, the decreasing cultivated lands and the increasing amounts of beef corresponding to economic growth and so forth. He proposes the habit of eating less beef by half as a drastic measure against this world – scale serious problem. This measure is also founded on the thought of "eating light" which he advices as the basis of good health and of failing to kill as many "lives" of animals and plants as possible.

Eating less meat and light saves us from starvation, promises us a healthy long life, and prevents us from contracting BSE. The unnatural way of breeding cows with powdered meats and bones, one of the causes of BSE, can be changed. Scrapie – type proteins are not absorbed into our bodies if our intestines are sound.

I realize keenly that the Japan General Medical Society have to make more efforts to catch and embody this Dr. Koda's thought.

Hayashi Ichinose
Permanent Director
Japan General Medical Society

Recommendations

Buddhism tells us, "Worldly desires follow the soul." I translate this into modern language as, "The nature of laziness is wonderful." This is the principle of existence for all living creatures, including human beings.

This principle functions to keep the ecological system in harmony in a strict, wild environment. It also allows human beings to live in good health. The affluence and convenience of today's human environment, though, has exaggerated our nature of laziness. With plenty of good food around, we eat as much as possible.

Dr. Koda's "Health Program of Eating Light" is the truth. But, honestly speaking, it is difficult to practice in an affluent environment.

I have improved my weak constitution by the Nishi System of Fasting and have gotten into the habit of skipping breakfast. But, because I am in good health, I carelessly tend to eat too much. On the other hand, a man driven into a corner by illness, a man who is so sick even modern medical science has given up trying to save him, is able to endure fasting and lead a life without breakfast in earnest. The very same man, though, becomes corrupt and eats too much after just getting into a little better shape.

From this standpoint, a fear of BSE (Bovine Spongiform Encephalopathy, so – called Mad Cow Disease) may save human beings. When we read this pamphlet carefully and spread Dr. Koda's theory of the "Health Program of Eating Light," it seems easy to decrease the amount of meat eaten by half, helped along by the fear of BSE. Indeed, here in Japan fewer people than ever are buying beef.

However, people forget fear quickly. We are in better health when we refrain from eating beef. Hunger makes us wealthier in mind. It is important to have this theoretical understanding inside us. No matter when we remember it, we abstain from eating beef and breakfast. This small practice must necessarily brighten our future.

I hope you read Dr. Koda's theory and change your view of health.

Gensho Ogura
Chief Priest
Joko Temple, Soto sect