# The Nutritional Sparks of Life

an unpublished book by Gary J. Lockhart (1942–2001)

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## INTRODUCTION

"It is a most nourishing and stimulating diet to eat one's own words."

Sir Winston Churchill

We wish we had the answers that will provide us with excellent health, vitality and a youthful appearance throughout life. Nutrition is one of the steps towards this goal. Many nutrition books present information that looks like a tax return. I am not interested in numbers—nobody pays attention to this. I'm interested in the history and ideas that led to the science of nutrition.

Where did these ideas come from? Should we be vegetarians? Does organic farming provide better food? Should we be eating raw foods? I have tried to shed light on the dark corners of diet and nutrition. If we understand the principles of nutrition, we are more likely to make a conscious choice of eating a better diet. If we go to a doctor with a nutrition problem we are likely to receive a prescription for an expensive new drug.

There have been enormous changes in food through the centuries and until recent times diet was generally poor, because of the lack of fresh food. A study of the graveyards of ancient Egypt showed that 74% of the people died by the age of forty. Although some people lived as long as we do, the average longevity during medieval times was about 40. There was no refrigeration, meat spoiled and a variety of fresh foods was not available during the winter months.

Changes in diet produce changes in attitude. Carl Lumholtz discussed this in *New Trails in Mexico*. A Papago chief remarked: "Few old men are seen any more. The food gradually supplanting their native diet is injurious to the health of the Papago. Children are no longer obedient. The young men nowadays are seized with restlessness and want to leave for other parts of the country."

There was a wonderful dog food commercial years ago, in which a photogenic dog is seen dashing through the rooms of a house. The dog reaches the wrong dog food, takes a huge gulp and spits it out. Then he goes to the "right" dog food and wolfs it down. The compa-

ny that filmed the commercial got a dog from the pound and kept it hungry. When released it would dash through the rooms of the house and skid to the dog dish. On the day of filming the commercial the photographers poured kerosene over the "wrong" food and moved the normal dog dish several feet away.

We humans have no real idea of the "right" human food. We are able to adapt to an amazing variety of foods depending on local conditions and traditions. Our instinctive wisdom is so bad that we have had to discover over and over the need for green plants to supply vitamin C. In 1914 the *Journal of Experimental Medicine* published proof that bacteria caused scurvy! Attempts to defeat bacteria didn't cure scurvy.

Literature contains many examples of bad nutrition. The worst examples were the sailors who spent months on ships living on salt pork and hardtack. Dante described a group of fasting souls in *The Divine Comedy* who had pale dry scaling skin with pigmented splotches. They were suffering from vitamin deficiencies.

I suspect that most Americans have episodes of nutritional deficiencies at some point in their lives. We overcome poor diet by taking vitamin pills. At one time during my writing work, I suffered from sore eyes. I had been eating a poor diet with little meat to save money. When I supplemented my diet with riboflavin, the itching and light sensitivity went away.

During the early years of President Clinton's administration the Food and Drug Administration decided that it should regulate vitamins as drugs. I don't know if anybody needs vitamins or food supplements. I want freedom for everyone to try the things that might improve their health or solve life's problems. Government agencies should give information and warning labels, but they have no business dictating personal decisions.

My strongly worded letter on freedom of choice was eventually returned with a letter signed "Bill Clinton." It said the FDA was only trying to protect the health of Americans! If they wanted to protect the health of Americans they would be removing cigarettes, candy and soft drunks. That would be too political, so these regulatory busy-bodies decided to attack vitamins and nutritional supplements.

Life is a series of choices, and good nutrition is one of the important choices of life. If we do not have good health, we are more apt to be sick, less energetic and less successful in life.

This book is written for information and should not be regarded as professional health advice. I can't help but be reminded of the words of the musical play based on Voltaire's *Candide*. After Candide returns from being a soldier for thirty years he remarks to Pangloss: "No, we shall not sit down here and talk about perfect harmony, because there is no such thing as perfect harmony. But let us try, before we die, to make some sense out of life."

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# 1. THE FOOD OF THE GODS

"From Universal Mind the first-born atoms draw their function, whose rich chemistry the plants transmute to make organic life, whereon animals feed to fashion sight and sense and give service to man, who sprung from them is conscient in his last degree of ministry unto God, the Universal Mind, whither an effect returneth whence it first began."

from The Testament of Beauty Robert Bridges 1929

In the world of ancient Rome the "best selling" author was Plutarch. His masterpiece was a comparison of the lives of the famous Romans and the famous Greeks. In *Isis and Osiris* he tells the story of two Egyptian cities. The sacred symbol of Cynopolis was a dog, and the symbol of Oxyrhinchus was a fish by the same name. People from Cynopolis started a feud by eating the sacred fish, then Oxyrhinchus retaliated by eating a dog. The situation grew warlike and a lot of blood was shed.

Many religions established food prohibitions or favorite foods, with the idea that God favored those who ate or didn't eat these foods. Both Judaism and Islam prohibited the eating of pigs. The Hindu religion prohibited the eating of cows. Michel Peissel visited the Tsarang Lama of the kingdom of Mustang. He was asked if it was true that the French ate fish and chicken. Then his questioner burst out laughing, saying that it was not possible that people could do something so disgusting as eat chicken.

Eating a food or diet is to communicate with the civilization that produced it. Bethlehem means "the house of bread." When the Jacquerie peasants rose against the French soldiers in 1358, their battle cry was "the bread rises!"

There is the well-known Bible story of the Children of Israel leaving the slavery of Egypt and wandering in the Sinai wilderness for forty years. They couldn't take food, but God provided them with manna and quails.

Manna was described as falling from heaven like dew or rain. It was small and round and tasted like honey or fresh oil. It was gathered in the morning, for it melted when the sun rose. Since the Sabbath was observed on Saturday—a holy period when no work could be done—a *double* portion had to be gathered on Friday. The manna could be ground in a mill or baked into cakes. The Psalms called it "Corn," "the bread of heaven," or "angel's food."

The monks of the St. Catherine monastery on Mount Sinai gather manna from tamarisk thickets. The major production occurs in June and lasts 3 to 6 weeks depending on the winter rainfall. *Exodus* mentions that manna was discovered on the 15th day of the second month after the exodus from Egypt. This is in late May or early June. The canyons of Wadi Nasib and Wadi Esh-Sheikh are famous for good manna production; a person can easily gather a kilogram in a day.

Scale insects suck sap from trees and shrubs. *Trabutina mannipara* produces manna in the mountain areas, and *Najacoccus serpentinus* produces it in the lowlands. The sap evaporates in the hot sun, and when wind rustles the leaves a snow-like white ball of evaporated sap falls to the ground. Because it is concentrated sugar, it will not support bacteria and won't stink or decay unless water is added. There are no "worms" in this area of the world, but the ants become active when the temperature reaches 21 °C. Manna doesn't melt from the sun on the hot ground; ants gather it and use it for food.

Manna is a common production of a variety of plants in dry areas or areas with hot summers. The manna of the Bible story probably came from the tamarisk *Tamarix gallica*. Armenian manna comes from camel thorn *Alhagi camelorum*, American manna comes from the sugar pine *Pinus lambertiana*, and California manna comes from the reed *Phragmites communis*. Manna in Australia comes from certain gum trees *Eucalyptus* spp.; and sugarwood or false sandalwood *Myoporum platycarpum*; and the Australian bluegrass *Dichanthium annulatum* = *Andropogon annulatus*.

In southeast Europe Sicilian manna came from the manna ash *Fraxinus ornus*, and was widely traded and used for medicine around the turn of the 20th century. It came from incisions in the trunks

and stems. During July and August cuts were made into the bark. In hot weather the sap oozes from the cuts and adheres into flakes and lumps. It is yellowish in color like dried honey. It was largely used as a laxative, demulcent and expectorant.

In southern Iraq, the original home of Abraham, the manna was a kind of lichen *Lecanora esculenta*, which the wind gathered and deposited into piles. People gathered this manna and made it into a white dough resembling pale fudge. It was baked into bread tasting like marzipan. The Kurds called it bread from heaven, while the Persians called it "wheat-nut"— on account of the taste. The peasized lichen showers are rare occurrences. It is not found on the Sinai Peninsula—but it could have grown there 3,500 years ago when there were more rains.

Arabians called the roots of *Cyperus rotundus* "manna." The root has a pleasant, almost almond taste and is a nutritious food. Sugary tree sap manna would have caused nutritional problems if eaten for a long period of time; it certainly would have been hard on the teeth. The story of manna saving the "Children of Israel" was probably altered with time, and the supernatural aspect emphasized.

The second food that God sent to the multitudes was **quail**. Every September millions of quail fly southward through the land bridge from Europe to Africa. This occurs only in the northern Sinai Peninsula. This was well known in ancient times. One of the duties of the priests of Zeus on the island of Cos was to pray for the quail, so that people would have food. Huge numbers of quail were caught in Italy. They were exhausted from the long flight over the mountain in April, so were easily caught in nets.

In modern times the numbers are much smaller, but even a century ago, many quail migrated. In 1924, Ada Goodrich-Freer wrote in *Arabs in Tent and Town:* 

"Early one morning in September an Arab left at our door the present of a couple of brace of fine fat quail; later another brought a basket full of live ones; by midday the salesmen arrived with quantities at very low price. When I went out I found our neighbors all around constructing temporary cages in which to keep live quail for future consumption. It had happened that the quail, coming north from Egypt through the Jordan valley, and flying low as is their habit, with the wind, had met a contrary wind and become so much exhausted, that they fell down in immense numbers, and were so weary that the Bedu had to merely gather them with their hands as we read in Numbers 11:31 "They gathered them." As in the case of the Israelites, the whole town soon became sick of the sight of quail, and let a great many of them fly. They ran about our garden for days, getting up their strength, and could easily have been "gathered" again."

The Bible records that despite all this food—manna and quail—the people complained, so Jehovah punished them with stomach pain. Quail poisoning is very well known in these areas. There is stomach pain with abdominal cramps and diarrhea. It generally passes away in two days. One theory is that the quail have been feeding on poisonous seeds. Another is that they are so weak and tired from the long flight, that they are full of muscle toxins.

After this episode, when Moses finally arrived in the promised "land of milk and honey," he sent out spies who returned with a huge cluster of grapes, pomegranates and figs. Another fruit mentioned may have been apricots or quinces. After entering the Promised Land, dietary laws were set up based on God's advice. The people can eat cows, sheep, goat, deer and wild oxen. They can't eat camels, pigs, moles and mice. They are allowed to eat doves and quail, but can't eat eagles, vultures, owls and bats. Fish with fins and scales can be eaten, but sharks, clams, crabs, and snakes can't be eaten.

The big prohibition of Jewish diet is pigs. The pig multiplies rapidly and converts waste food and roots into pork. But the meat often contains parasites, and when it isn't cooked they spread to humans. If it is cooked properly there is no danger. Palestine has little cooking fuel, and the care required was not worth the risk to health.

The book of Daniel contains a strange piece of nutritional advice. The prophet refuses to eat the king's foods and asks for vegetables. Later the proud king Nebuchadnezzar is humbled and eats grass like an ox. The prophet Isaiah remarks of God's chosen one: "Butter and honey shall he eat, that he may know to refuse the evil, and choose the good." (7:15)

The *Talmud* became a traditional part of Jewish ritual, and all religious students read it. It did have important health recommendations. Water had to come from areas distant from cemeteries, brick ovens or tanneries. It advises people to wash their hands before meals. When you tasted soup, you did not put the remains back into the pot. Rabbi Chisda advised students not to eat herbs because they created hunger! Poultry, fat, eggs, almonds, cheese and liver were said to be difficult to digest.

The *Zohar* became the great book of mystical thought from the Angel Raziel. It has little to do with nutrition, but it does deal with the philosophy of how the body operates. The heart picked out the choicest parts of nutrition from the blood. The liver was next in line and gave nutrition to the other organs. The spleen got the remainder, which resulted in sores, rashes and leprosy.

Christianity built on the foundation of Jewish tradition, but Saint Paul eliminated the Jewish dietary rules. Various Christian leaders debated the wisdom of the old rules and occasionally added new ones. The Catholic Church prohibited meat on Fridays; fish was substituted. Ocean fish would have added minerals and iodine to the diet. Ellen White added the old Mosaic laws to the Seventh Day Adventist Church. She also prohibited tea and coffee, and advised her followers to be vegetarians.

The Hindu culture gradually made the cow sacred and prohibited its eating. The laws of Manu formed the basis for the Hindu culture. This treatise states that cattle should be given to the priests, who could properly bless them, and then they could eat them. Eating the cat was bad for the common people—but good for the priests! As time passed nobody could eat cows, and the vegetarian diet became a staple of religion.

The laws of Manu state: "Garlic, leeks, onions, mushrooms, and all plants springing from impure substances are unfit to be eaten by twice-born men." Yama, a commentator on this book, says: "Those who eat mushrooms, whether springing from the ground or growing on a tree, are fully equal in guilt to the slayers of Brahmans and the most despicable of all deadly sinners."

The *Ayurveda* recommended special eating to give strength to the body. Gold vessels increase the digestive fire and give strength. Eating from silver containers removes the cough, and strengthens the heart and clears the complexion. Eating off of plantain leaves gives strength and creates sexual desire. Eating food on kurch leaves increases digestion, clears the bowels and removes skin disease. Eating from mango leaves gives happiness and prosperity.

Some five hundred years before Christ, the Buddha sought the answers to life through asceticism. He allowed himself one jujube fruit, one sesame seed and one grain of rice a day. This resulted in slow starvation, but he was determined to purify the body and transform the spirit. After six years of asceticism his limbs were like sticks and his spine could be seen from the front.

Then Buddha received enlightenment and his first meal afterward was honey and a barley cake. His regular fare later in life was a little molasses in the morning with a meal of rice curry, fruits and vegetables. He didn't believe in solid food in the afternoon, so he drank tea or fruit juice.

The five foodstuffs of the Buddha were rice with milk, baked grains mixed with beans, fish and meat. These grains were barley, wheat, millet and rice. All leafy vegetables were permitted, but garlics and leeks were to be avoided. The fruits mentioned in the Buddhist canon include jackfruit, breadfruit, bananas, coconuts, mangos and rosy apples.

The Buddha did include meat and remarked: "The one who takes the life is at fault; but not the one who eats the flesh. My followers have permission to eat whatever food is customary to eat in any place or country, as long as it is done without gluttony and without evil desire. The last meal of the Buddha has long been a subject of conjecture. Possibly the deadly food was the mushroom *Stropharia cubensis* = *Psilocybe cubensis*. It is believed to be an animal, not a plant, and it stinks like a dead body hours after being collected. The Buddha realized something was wrong with the food, but he unhesitatingly accepted it from a well-meaning disciple. He became violently ill and died at the age of 80.

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