

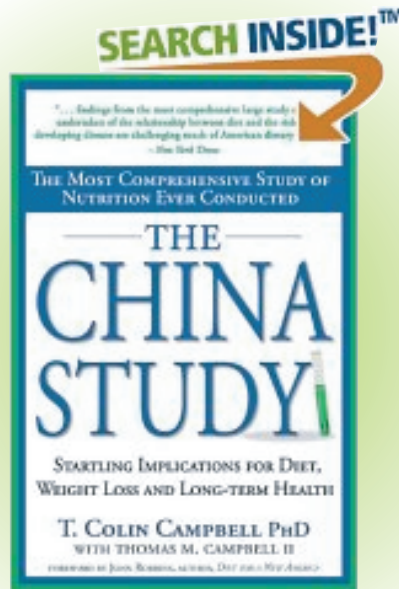
“...findings from the most comprehensive large study ever undertaken of the relationship between diet and the risk of developing disease are challenging much of American dietary dogma.” — *The New York Times*

Exclusive Report

What the Most Comprehensive Study of Nutrition Ever Conducted Has to Say About Diet, Weight Loss and Long Term Health... Startling Implications!

THE CHINA STUDY

The Top 12 Findings



Introduction

The China-Oxford-Cornell Diet and Health Project, or China Study, is one of the most acclaimed research investigations of diet, lifestyle, and disease done in the past 100 years. ***The New York Times*** wrote, “...findings from the most comprehensive large study ever undertaken of the relationship between diet and the risk of developing disease are challenging much of American dietary dogma.”

Welcome to “The China Study.” I am privileged to be able to deliver the top 12 findings of this seminal study, as written by the book’s co-author [Thomas M. Campbell II](#), Professor Emeritus Nutritional Biochemistry at Cornell University with his permission. Dr Campbell is The China Study’s founder and chief investigator.

The findings of this study include the work of top researchers from Oxford and Cornell, the American Government, the Chinese Government and others from countries around the world. This book and the study it’s based on will have startling implications for your diet, weight and long term health. What started as an attempt to solve a seemingly unrelated malnutrition problem in the Philippines began a cascade of events over decades, ultimately leading to the most comprehensive study of nutrition ever conducted.

From the first hand experience of one of the most prolific researchers in modern times, T Colin Campbell, Ph.D., The China Study provides guidance for how to navigate the easily misleading modern day “business” of health. This study ushers in a new era in nutritional science, that is practical and beneficial to people. It not only drives home what the overwhelming worldwide evidence is now confirming regarding nutrition’s impact on long-term health; it is a treasure of principles and practices that could only be clarified by a long term commitment to good science and the unique conditions under which this study took place.

As a personal acquaintance of Dr. Campbell, it has been a privilege to follow the progress of his work over the past decade. The China Study’s influence makes the “case” for what foods are considered Nutrient Rich, nutrient poor and nutrient barren, the 3 classes of foods you will learn about at [NutrientRich.com](#). As a participating member of the Nutrient Rich [Lifestyle Health and Science Advisory Team](#), Dr. Campbell’s profound findings will be referenced and studied for years to come. They will also reinforce everything you learn in the **Nutrient Rich Lifestyle System™**.

Here at NutrientRich.com, with the advice of world class medical nutritional experts, we have set the standard, established the system and defined what it means to eat Nutrient Rich. It's important to note that given your current condition and your goals a Nutrient Rich diet is unique to you.

Nutrient Rich as a concept stands on its own. Its persuasion is based on the nutrient profiles of food combined with the practical realities of every day living with strive towards eating the most Nutrient Rich foods the majority of the time. Given Nutrient Rich is ultimately a quality standard, we focus on the quality differences between plant, animal and refined foods, and base recommendations on this insight. What you will learn in this report will play a big role.

What follows, is published with permission by the authors, including:

- I. On overview of The China Study,**
- II. A letter written to you directly from Dr Campbell,**
- III. Top 12 findings of the China Study. Plus a bonus finding on protein that will be a real wake up call! (Read the book for many more)**

Consider yourself very fortunate that you are reading these summarized finding from such a treasure of modern science. I recommend you read *The China Study* (the book) first hand as this exclusive report is only the tip of the iceberg. This book will magnify what you learn in the *Nutrient Rich Lifestyle System* many times and build your confidence as you eat better quality food. It will give you much to hang your hat on and share with others, with conviction. Everyone I have inspired to read this book comes back and says... wow!

Keep Moving Forward,



John Allen Mollenhauer,
Founder, www.NutrientRich.com
Producer, Nutrient Rich Lifestyle System™
www.NutrientRich.com/blog

About Dr Campbell:

T. Colin Campbell Ph.D., chief U.S. investigator for the China Study, was an unlikely candidate for becoming one of the main scientific defenders of a plant “based” diet. “I was raised on a dairy farm and ate plenty of meat and eggs,” he says, “and I wrote my Ph.D. dissertation on the ways animal protein could be produced more efficiently so we could eat more animal-based foods.” But once he started doing nutritional research in the 1960s, this defender of meat consumption became convinced that, in fact, a diet as low as possible in animal-based products was a far healthier choice. “I was just paying attention to what the scientific evidence was showing me,” he says. Now his diet is over 90% whole foods, plant based and he and his wife, Karen, have raised five children who consume an essentially plant-based diet.

T. Colin Campbell, PhD, Jacob Gould Schurman Emeritus Professor of Nutritional Biochemistry has been the Senior Science Advisor to the American Institute of Cancer Research/World Research Fund. Among his many achievements—including more than 300 scientific publications—he was one of the co-authors of the National Academy of Sciences’ landmark report on **Diet, Nutrition and Cancer**, which recommended increased consumption of fruits, vegetables and whole grains.

From The Desk of T. Colin Campbell PhD

Dear Reader,

I am a Professor Emeritus of Nutritional Biochemistry at Cornell University, having completed my PhD in 1962 at Cornell, then returning as a full professor in 1975. I was then awarded an endowed chair, Jacob Gould Schurman Professor, in 1985, before retiring in 2000. My program at Cornell included the full gamut of academic activities, including teaching, public lecturing, consulting, policy making and the running of a large laboratory research program mostly funded by the National Institutes of Health, with smaller amounts provided by the American Institute for Cancer Research and the American Cancer Society. I also organized and directed, with colleagues in China and England (the University of Oxford), a nationwide survey of diet, lifestyle and disease associations in 130 villages (65 counties) in rural China in an effort to better understand, for a dozen different cancers, why these diseases concentrated geographically in some counties and much less so in other counties.

My laboratory work, with many students and other colleagues, was focused on dietary protein, originally for its great health value, and especially for the so-called high

quality protein available in animal-based products. This was consistent with my personal views (I was raised on a dairy farm), with my PhD dissertation research, and with the consensus of the nutrition community. My interest in protein began in the Philippines with my coordination of the technical assistance provided to a nationwide project on feeding malnourished children who were thought to be seriously deficient in protein. It took a rather different focus, continuing for the next 27 years doing experimental research in the laboratory **investigating how and why the feeding of animal-based protein (e.g., casein, the major protein of cow's milk), but not plant-based proteins, profoundly enhanced experimental cancer development.** The findings of this research, which were published in a series of peer-reviewed scientific articles in the very best research journals, indicated a substantial difference in the ability of animal and plant based proteins to enhance cancer--at least in experimental animals. It also begged many questions as to whether this difference paralleled similar differences for other diseases and whether other nutrients distinguished by their presence in animal and plant based foods might also show similar effects--especially in humans.

This was the research background that influenced the experimental design of the China study and the subsequent analysis and interpretation of the findings. Namely, I was interested in determining whether the proportionate amounts of animal and plant based foods played a role in determining health and disease conditions for humans. Most importantly, I was interested in the total effects for all components of animal and plant based foods as they work together. The China Study, in some unique ways and in spite of its limitations, provided some very provocative results. These findings suggested that even relatively small intakes of animal based foods (from 0% to 20% of total calories) could encourage biological processes that, over a lifetime, would give rise to higher risks for a wide variety of diseases typically found in Western societies (e.g., cancers, cardiovascular diseases, diabetes, etc.). It is important to note, at this point, that these findings DID NOT PROVE specific cause and effect relationships. These findings were, however, important stepping-stones to a larger truth that considers both the context of our laboratory based work and the work of other researchers that had been developing for many years, indeed for many decades in some cases.

My own views on diet and health are constrained, as best as I can manage, within an environment of doing properly designed experiments and of undertaking proper analysis

and interpretation of the findings. I have been especially conscious of the limitations of research.

It was at this point that I chose to write a book for the public, while co-authoring it with my son, Tom, a book that was written as much for my own education as well as that for others. I was especially interested in seeking the most comprehensive understanding of the concept of nutrition. Throughout my own research career, I had come to understand **that nutrition is not the summation of the activities of a couple dozen identifiable and well-known nutrients**. Rather it represented the comprehensive and integrated effects of virtually countless food nutrients and nutrient-related chemicals to maintain health and prevent disease, found in whole foods.

Returning to the theme of our book, I am proposing that the evidence supporting the ability of nutrition to promote health and prevent disease is exceedingly impressive. My journey to this view began as a highly individualized focus on the independent activities of specific nutrients and gradually expanded to include patterns of nutrients and patterns of effects. Even now, my contemporary view of nutrition continues to expand to an ever-larger array of lifestyle conditions, reaching into societal, economical, philosophical, environmental and political domains of interest. For me, it is easy to visualize that many of the larger issues and problems of our society are not only interdependent but, indeed, many of the problems that we now experience can be minimized if not eliminated by what we decide to eat.

One of the most direct ways to think about which foods to favor is to consider the concept of 'nutrient richness'; this, of course, assumes that we know which foods are nutrient rich. On the basis of my own experimental research gained over the past 45+ years, it is clear to me that these are the whole plant foods: whole vegetables, beans - legumes, fruits, raw nuts and seeds, and cereal grains. This also means that, as much as is feasible, we should avoid or minimize the consumption any foods that stray from this group. These include animal foods and fragments of plant-based foods (like sugar, white flour, oil) that are often used to make 'junk' foods.

My concept of nutrition is about 'wholeness', keeping intact those parts of the plants that are rich in nutrients and whose biological activities are highly integrated once they are consumed, digested, absorbed and metabolized. These would especially include the outer layers of these foods, where most of the nutrients are located.

Nutrient Profiles, Nutrient Richness and Health

I have come to realize that the concept of nutrition is widely misunderstood, both by professionals and non-professionals alike. Experimental nutrition research is conducted and so-called nutritional products are marketed as if they represented the mere summation of the independent effects of individual nutrients. Although individual nutrients may produce specific effects that appear to be beneficial--both in laboratory and clinical settings, these effects are usually interpreted without considering the larger context, are short-term observations, are produced by unnatural chemical analogs and/or represent unnatural amounts. These observations tend to suggest that we can get nutrition out of a pill instead of from food, a view that is primarily driven by marketing forces. This view is not consistent with what is known about nutritional biology, thus is not consistent with optimal health. These criticisms are supported by recent reports that have reviewed the long-term effects of nutrient supplements—including the more popular vitamin A, E and C supplements. These reports conclude that there is no convincing evidence that these supplements maintain long-term health and prevent chronic diseases like cancer and heart disease; indeed, some of these nutrients supplement effects in isolation, actually advance the further progression of disease.

What, therefore, is the correct interpretation of the effects of nutrition on health maintenance and disease prevention? These effects are quite profound. The more useful interpretation states that nutrition represents a highly interactive and synergistic effect on health of all nutrient-like chemicals when these chemicals are consumed in the form of whole food. There are thousands, perhaps hundreds of thousands of such chemicals, only some of which have been identified. The nutritional effect is as if there is a natural biological symphony operating within our bodies—and within our cells—that integrates countless nutrient-like activities in a way that produces health when the right foods are consumed. **With this understanding, we then can begin to understand why diet has such a profound effect on health.**

We can begin to appreciate, for example, why food is able to reverse advanced degenerative diseases, to control the expression of mischievous genes and to control the toxicities of especially noxious chemicals, among other effects. We can also begin to understand why there are such marked differences in disease rates among different groups of people who use substantially different diets and why certain diseases cluster in the same geographic areas (i.e., they have a common dietary etiology). This symphony of effects (or reactions) is most impressive at the cellular and metabolic levels. These

reactions are highly interwoven and integrated in a way that minimizes energy utilization and harmonizes the collective effects of nutrients in a way that creates health on a wide variety of outcomes. The body is constantly regulating seemingly disparate reactions within cells, between cells and even between organ systems that lie far apart anatomically. The interactions among different nutrients and related chemicals are now well established, having been demonstrated in thousands of research studies during the past century. We know that these interactions exist but we fail to appreciate what they truly mean.

Given this view of nutrition, what, therefore, is the most useful way to appreciate which foods are best in optimizing health? One way to do this is to consider the patterns of nutrients in various foods that are already known to create health. We can call these patterns 'nutrient profiles' or **we can classify foods according to their 'nutrient richness', meaning those foods that have the healthiest nutrient patterns.** Comparing the concentrations of indicator nutrients in foods can do this. The nutrient composition of those foods producing the greatest health benefits can serve as the standard against which other foods are compared.

This is the essence of the concept of nutrient richness, indeed is the essence of the concept of nutrition itself. This essence embodies the synergy of nutrient activities that results in the biological symphony of health.

It is time that we worry less about the details of food and food activities and more about the larger messages. The Nutrient Rich Revolution is sending the kind of message that will undoubtedly become the future of our society if we are to have any interest in being healthy. It emphasizes the health-promoting power of a Nutrient Rich Diet and a successful lifestyle, while steering clear of the quick fixes and gadgetry that have mistakenly been promoted in the past. This is THE health message for the future.”

Good health for all!

T. Colin Campbell, PhD
Jacob Gould Schurman Professor Emeritus
Of Nutritional Biochemistry
Division of Nutritional Sciences
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About The China Study

The China Study measured 367 diet, lifestyle, and disease related variables by studying 6500 adults in 65 different counties around China, representing 2,500 counties across rural China and Taiwan. Researchers asked the Chinese subjects to fill out dietary questionnaires, took blood and urine samples, measured household food intakes and analyzed food from the marketplace. When all was said and done, the variables were compared against each other and the scientists had generated *more than 8000* statistically significant associations.

The China Study is Unique:

- The range of cancer incidence in rural China varies enormously from county to county. One county might have 100 times as many cases of a certain cancer, per 100,000 citizens, than another county.
- The typical dietary intake in rural China was mostly composed of plant foods. Very few large studies have ever been conducted in this range of plant-based diets, and the China study did it with exceptional comprehensiveness. To show just how dramatically different the diet is in rural China compared to the diet typically eaten in America, take a look at the following table:

Chinese and American Diets: a Comparison

Nutrient	China	United States
Calories (kcal/kg body weight/day)	40.6	30.6
Total fat (% of calories)	14.5	34-38
Dietary Fiber (g/day)	33	12
Total Protein (g/day)	64	91
Animal Protein (% of total calories)	0.8	10-11
Total Iron (mg/day)	34	18

- The Chinese subjects consumed far less fat, less total protein, and far less animal protein. On the other hand, they consumed far more iron, more fiber, and more calories overall (per kg of body weight).

The China Study is High-Quality:

- Unlike most diet and health human studies, which merely use dietary questionnaires, which are known to be less than perfect, the China Study measured diet and lifestyle variables in a variety of ways. Urine and blood was collected and analyzed, food intake was measured over a three-day period by observers in the homes of subjects, food was collected in the marketplace for analysis, AND dietary questionnaires were used.
- Subjects were limited to those adults between the ages of 35-64. The disease statistics for this group of people are far more reliable than the disease statistics for the elderly.
- The populations under investigation were stable. Most adults grew up in the same county they lived, and ate the same locally-grown food that was measured at the time of the study. This was crucial because the diet and lifestyle factors that contributed years ago to the genesis of disease were the same diet and lifestyle factors that were being measured during the survey.

The China Study is Comprehensive:

The following types of variables were measured:

- Disease mortality rates
- Nutrition, viral, and hormonal indicators in the blood
- Biochemical factors in the urine
- Specific food intakes
- Intakes of non-nutrient contaminants (pesticides, heavy metals)
- Geographic and climactic Factors

All of these features, and others, make the China-Oxford-Cornell Diet and Health Study a one of a kind investigation, a research story with lessons for us all. Several of the more provocative findings are mentioned in this report. In summing up the impact of this landmark project, the *Saturday Evening Post* wrote, “*This landmark investigation should shake up medical and nutrition researchers everywhere.*”

The Top 12 Findings from the China Study,

by T. Colin Campbell, Ph.D. with Thomas M. Campbell II

The Main Message:

1. **Don't worry too much about single nutrients, single foods, or single supplements.** Simply eat from the right food groups (whole foods, like vegetables, legumes, fruits, nuts and seeds...) and you will have a diet that is exceptionally rich in health-promoting factors.

A comparison between the nutrient contents of plant and animal-based foods shows how vital it is to choose the right food groups. The best part: by casting aside the barrage of details that we hear every single day (Are eggs good? Bad?) and choosing to eat from food groups that are rich in nutrients, we can enjoy excellent health without anxiety.

People concern themselves a great deal with the details about food and health. We wonder whether chicken is better than beef, whether olive oil is better than canola oil, and whether flaxseed meal needs to be eaten every day or every other day. There is nothing inherently wrong with wanting to get these details right, except for the fact that worrying about these details often causes us to lose sight of the big picture: our overall dietary pattern week in and week out is the most important factor in determining our health. Our overall dietary pattern has to do with questions like, "What do I eat more of: plants or animals?" Or, "Am I eating voluminous amounts of food fragments (processed foods, like sugar and oil, cookies and potato chips that are merely extracts of whole foods) and very few whole fruits and vegetables?" The answers to these questions are far more telling, and far more important, than the details we often worry about.

The reason these big, general questions are so important is that nutritional differences between food groups are far larger and more impressive than differences between single foods. The biggest differences are found between plant and animal foods. The following chart shows the nutrient differences between these two food groups.

Nutrient	Animal-based Foods*	Plant-based Foods**
Cholesterol (mg)	399	0
Fat (g)	33	5
Protein (g)	40	15
β-carotene/retinol (mcg)	140	36300

Dietary Fiber (g)	0	22
Vitamin C (mg)	0.3	1020
Folate (mcg)	49	220
Vitamin E (mg)	1.2	11.6
Iron (mg)	2.9	7.5
Magnesium (mg)	53	193
Calcium (mg)	250	350
Vitamin B12 (mcg)	2.8	0
Vitamin D (IU)	91	0
Zinc (mg)	4.4	3.6

500 calories – 100 calories each of Egg, Turkey Breast, Whole Milk, Ground Beef and Pork ** 500 calories – 100 calories each of Whole Wheat Flour, Red Pepper, Kale, Mango and Canned Garbanzo Beans

As you can see, there are major differences between the nutrients in these two food groups. Plant-based foods have no cholesterol and less fat, protein, vitamins B12 and D and zinc than animal-based foods, although zinc levels are quite comparable. On the other hand, plant-based foods exclusively have fiber and more of many other vitamins and minerals. These are important differences. Animal based foods have significant amounts of cholesterol and fat and protein – far more than is healthy – and compared to fruits, vegetables, and whole grains, they severely lack many of the vitamins and nutrients that have been found to be beneficial to health. It is a double-whammy, so to speak. You get the bad, and you also miss out on the good. Plant-based foods, on the other hand, are exceptionally rich in health-promoting nutrients like fiber and antioxidants, including vitamin C and β -carotene. Furthermore, with the exception of vitamin B12, there are virtually no essential nutrients that are needed that are not abundantly available in plants. In other words, there is no ‘downside’ to consuming plant-based foods.

You may notice that there are some apparent deficiencies in plants, but these ‘deficiencies’, for the most part, are not problematic at all. Going down the list of possible deficiencies:

- **Cholesterol.** We do not need to consume cholesterol. Our bodies make all that we need.
- **Protein.** The protein levels that may appear to be low compared to the animal-based foods are more than enough for optimal health. In fact, the high levels of protein in animal-based foods may be harmful. For many decades, the government has recommended that roughly 10% of calories in your diet should come from protein. This is more than enough to meet the requirements for virtually all people. The plant-based foods shown above derive over 12% of their calories from protein, on average. Going much higher than this, especially if you are getting most of your protein from animal-based foods, has been linked to heart disease, various cancers, kidney stones, and gout and bone problems.
- **Vitamin B12.** Vitamin B12 is an essential nutrient that can be found in plants if they are grown in a healthy organic soil rich with microorganisms. In addition, our evolutionary ancestors were likely to get B12 from eating plants that were not scoured of all dirt – B12 is produced by microorganisms in healthy soils. Because we don't eat plants grown in soil rich with B12 and we don't consume much dirt anymore, supplements are necessary if no animal products are consumed. This is not a flaw in plant-based foods – it is merely a symptom of our separation from nature.
- **Vitamin D.** Finally, it is not essential to consume vitamin D because our skin produces this nutrient when it is exposed to the sun. Being in the sun for 15 minutes or so every couple days provides all the vitamin D our bodies need. If you are not outside for even this minimal amount of time, consuming a small vitamin D supplement or fortified food can correct any potential deficiencies.

This evidence shows that consuming a diet of predominantly plant-based foods produces a very different nutrient intake than consuming a diet of predominantly high-protein, high-fat, animal-based foods. These differences in nutrient patterns are so

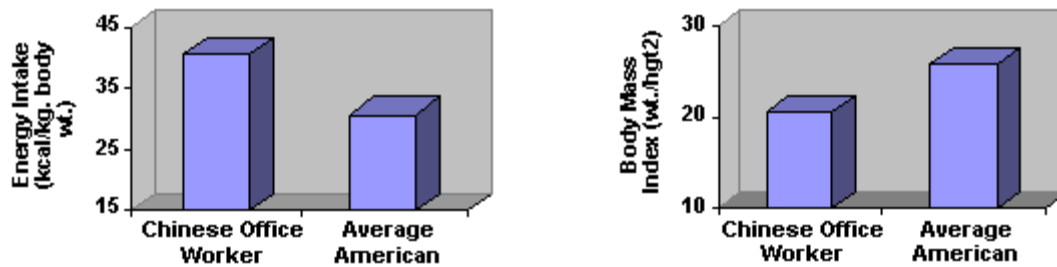
striking that the details surrounding different foods and single nutrients become an after-thought; a minor concern that becomes of little relevance, if at all, when our diets are highly skewed in favor of animal based foods. I could go through a similar explanation with foods that are heavily processed, like cookies, chips, fries, and sodas, versus whole foods. Focusing on the differences between the classes of the foods you're eating is far more valuable than comparing the individual foods in each class. For example plant foods, vary widely in their nutrient contents.

There is a second, even more important point that is often forgotten as we focus on nutrition details, supplements, and pills ad nauseam. Nutrition, health and disease relationships are the result of extraordinarily complex biochemical systems that we do not fully understand. There are thousands of chemicals in food that scientists do not know anything about, and thousands of reactions in the body that scientists have not begun to untangle. To worry about single chemicals acting within single reactions is short-sighted, and yet this is how most of the anxiety producing nutrition details surface in the popular media. The main lesson, the lesson that we too often forget, is that if you get the big picture right, if you have a health-promoting overall diet and lifestyle, you can relax and enjoy your food without worrying about minute details every day. Eat a plant-based diet rich in nutrients, stay physically active and your body will do the rest!

2. **It's not just about *how much* you eat, it's *what* you eat.** The least active people in rural China consumed 30% more calories per pound of body weight, and yet had a 20% lower body mass index than average Americans.

Amazingly, it appears that for keeping yourself slim, what you eat is as important as how much you eat. Researchers discovered quite a paradox in China. People in China consumed significantly more calories, per pound of body weight, than people in the United States, and yet they had a far lower body mass index (a measure of body size that takes into account both height and weight).

Most of the people in rural China lived a traditional lifestyle, meaning that they were outside all day farming or doing other kinds of manual labor. Their level of physical activity was far, far higher than the normal American, so that they necessarily had to consume more calories. But researchers corrected for this as much as possible. Researchers compared the *least active* part of the Chinese population, the office workers, to the *average* American, and still found that the Chinese consumed 30% more calories (per pound of body weight), and yet had 20% lower body mass index than average Americans.



This can still be largely explained by the fact that many office workers in China, at the time of the survey, were more active than the average American. They rode bicycles everywhere. But there are likely to be additional explanations. Laboratory experiments have shown that a diet lower in animal protein tends to encourage slower, more controlled weight gain. **One reason for this is that calories from a nutrient-rich diet are likely to be burned off as body heat, rather than deposited as body fat. This is a process known as thermogenesis. In addition, a nutrient-rich diet can actually energize you to voluntarily exercise more.** These surprising principles have been found to be true in laboratory studies and are supported by the China-Oxford-Cornell Diet and Health Project and other human studies.

In short, to maintain a healthy weight, what you eat might be an even more important consideration than how much you eat.

3. **When a virus strikes, what you eat plays a vital role in your overall health.** Scientific findings show that diet (as reflected in blood cholesterol levels) is associated with liver cancer, even when the hepatitis B virus is pervasive in a population.

It has long been known that people with a chronic infection of hepatitis B virus (HBV) are much more likely to get liver cancer. The virus, in a simplistic sense, makes a person 'genetically susceptible' to liver cancer because of the insertion of a significant portion of the HBV gene into the human gene. There is reason to think that good nutrition can minimize this risk, however, by controlling the 'expression' of the gene to cause the cancer.

Liver cancer rates in rural China were higher among counties with higher average blood cholesterol levels, as well as counties with higher HBV infection rates. Higher blood cholesterol levels were convincingly associated with dietary choices. So, to connect

the dots, it appears that liver cancer was significantly associated with diet, *even in the face of chronic HBV infection.*

This finding is supported by laboratory experiments. Using rats that have been similarly 'genetically predisposed' to get liver cancer by HBV, scientists have been able to control how much cancer they get simply by altering the amount of casein (the main dietary protein in cow's milk) present in their food. Rats with the HBV-altered gene that consume diets composed of 20% casein almost uniformly get cancer. Rats that consume diets composed of 5% casein showed a remarkable decrease in the progression of this cancer.

- 4. By adopting a nutrient rich diet and an active lifestyle, the risks for several diseases are reduced at the same time, without even thinking about it.** This finding emerges from the observation that diseases cluster together in the same geographic regions and for the same populations, which suggests that they may have a common cause.

One of the most exciting general principles supported by the China-Oxford-Cornell Diet and Health Project was that certain diseases cluster together in the same geographic regions, populations, and individuals. There turns out to be two general groupings of disease: Diseases of Affluence and Diseases of Poverty, as seen in the chart.

Diseases of Affluence	Diseases of Poverty
Cancer:	Pneumonia
Colon, lung, breast, leukemia, childhood	Digestive Disease
brain, stomach, liver	Pulmonary Tuberculosis
Diabetes	Parasitic Disease
Coronary Heart Disease	Rheumatic Heart Disease
	Diseases of Pregnancy
	Many Others...

This evidence supports the hypothesis that diseases that cluster together may have a common cause. In other words, the same conditions that foster diabetes also foster coronary heart disease. Otherwise, why would they so consistently appear in the same populations? In rural China, many of the Diseases of Affluence were associated with higher blood cholesterol levels, which again were strongly associated with dietary patterns. Extensive research from other studies and other settings support the finding

that one type of diet and lifestyle (a nutrient-poor diet and sedentary lifestyle) is associated with many of our leading killers in the same way.

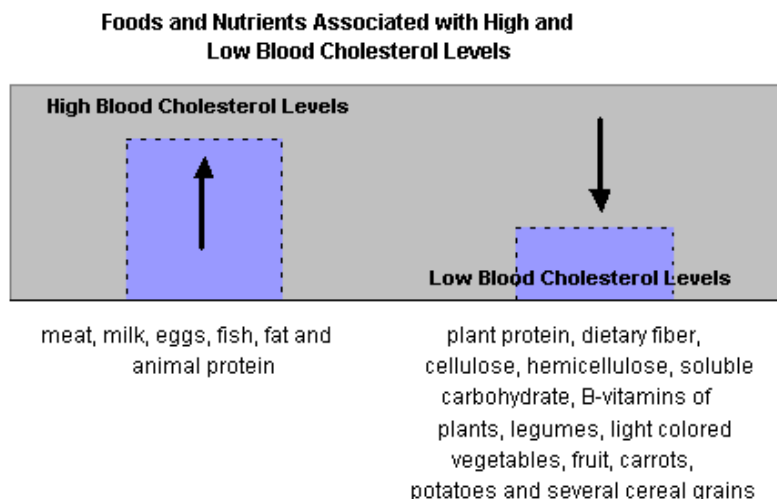
This leads to the exciting principle that lifestyle choices, if made correctly, can affect not just one, but many, of the major diseases that afflict Americans.

You don't have to choose just to fight lung cancer, or heart disease. *The same choices that affect one also affect the other.* Successful lifestyle choices are tools to achieve wide-ranging health benefits.

- 5. Blood cholesterol is a predictor not only of heart disease risk, but also of cancer.** Furthermore, diet is strongly linked to blood cholesterol levels. The best foods for disease prevention: unrefined, plant-based foods.

Over four decades ago, the famous Framingham Heart Study conclusively found that high blood cholesterol levels were a predictor of heart disease, and since that time, cholesterol has become a household word and one of the most common targets of pharmaceutical drugs. The China-Oxford-Cornell Diet and Health Project adds a new dimension to this debate, because researchers found that blood cholesterol, when studied for populations, was also linked to various cancers. This suggests that blood cholesterol is not just a predictor of heart disease, but cancer as well. This association was observed for relatively low total cholesterol levels (90-170 mg/dL), which were much lower than generally found in Western populations.

Furthermore, researchers found that dietary choices were strongly associated with blood cholesterol levels. To make a long story short: as intakes of plant foods increased, blood cholesterol levels went down, and as intakes of animal foods increased, blood cholesterol levels went up. Specific associations are shown in the following graphic.



6. **Breast cancer is not just a function of fat intake.** There is a complex biochemical network that determines risk of breast cancer and other cancers. Obsessing over one nutrient at a time is not likely to reap any special benefit. It is much more fruitful (and much more relaxing!) simply to eat the right types of whole, unrefined foods and let your body take care of the rest.

The *comprehensiveness* of the China-Oxford-Cornell Diet and Health Project is second to none. This does not mean it is the largest study ever done. The number of subjects studied in rural China, for example, was 'only' 6500 adults and their families. There have been many studies now that have examined far more than 100,000 adults, and are thus much larger. However, the number of variables measured in conjunction with each individual in rural China was unusually large. In contrast, many larger studies only record information on several dozen different variables at most. The Cornell, Oxford, and China researchers, on the other hand, examined and compared 367 variables, meaning that the complex network of food, health, and environment was studied in a most comprehensive way.

This is useful for understanding the interconnectedness of the evidence regarding breast cancer and diet. Famous studies from several decades ago had shown that countries with a higher per capita consumption of fat had higher rates of breast cancer. It was a very strong, nearly linear relationship. Many scientists then thought that fat intake alone was likely to be responsible for breast cancer. The China-Oxford-Cornell Diet and Health Project added far more to this debate, however, because of its inclusion of a much more comprehensive collection of dietary, lifestyle and disease characteristics.

Fat intake was significantly associated with breast cancer incidence in rural China, but several other risk factors and clinical markers also were associated. Risk factors for breast cancer include early age of menarche (age at first menstruation), high blood cholesterol, late menopause, and high exposure to female hormones. It turns out that higher dietary fat intake is linked to higher blood cholesterol levels, and both of these factors are associated with earlier age of menarche, later menopause, and higher production of female hormones. Furthermore, it is not only fat alone that may trigger these changes but, more importantly, it is animal foods in general.

Breast cancer is now accepted to be, in many cases, a function of lifetime exposure to female hormones; the higher the hormone exposure, the higher the breast cancer-risk. The China-Oxford-Cornell Diet and Health Project found that not only does fat potentially play a role in increasing female hormones over a lifetime, but so does animal protein and animal-based foods in general. The comprehensiveness of the study,

attained by measuring many more variables than just fat intake and cancer risk, make this a very compelling finding. Biological associations almost never point in the same direction like this by chance. Further, these findings in rural China are especially compelling because of they apply to a range of dietary experience that is unusually low in animal-based foods.

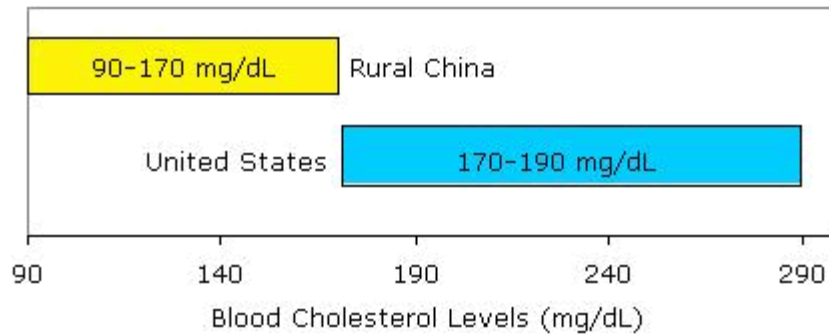
This means that breast cancer risk, and very likely risk of other diseases, does not revolve around one nutrient, such as fat, or one risk factor, such as family history. There is a network of food chemicals, as found in whole foods, and environmental factors that work together to create or undermine health. Adjusting one tiny link in the scheme of things, such as using margarine instead of butter, is unlikely to make a difference. Magic bullet chemicals rarely heal and single risk factors rarely explain complex diseases. Biochemical realities are far more complex.

Fortunately, however, this leads to an astonishingly simple message: *a total dietary and lifestyle approach, one that favors a plant based diet and limits animal foods*, is more powerful than any single pill or supplement you might take. This lifestyle affects the multitude of complex biochemical reactions in a positive way across the board, which is the closest thing to a magic bullet we'll ever get.

7. **You can *virtually eliminate your risk of heart disease***, the most pervasive killer in America, by enjoying a Nutrient Rich diet and an active lifestyle. In some populations in China, heart disease is practically nonexistent.

Heart disease was practically non-existent in certain parts of rural China at the time of the China-Oxford-Cornell Diet and Health Project. This is reflected in the unusually low blood cholesterol levels in rural China, which were linked in a highly significant way with dietary patterns. As discussed in research point #4, intake of even small amounts of animal-based foods was linked to higher blood cholesterol levels, and intake of plant-based foods was linked to lower blood cholesterol levels. In rural China, blood cholesterol levels in the 65 counties ranged from 90 mg/dL to 170 mg/dL. In America, blood cholesterol levels ranged from 170-290 mg/dL. The difference is illustrated in the graphic below.

Range of Blood Cholesterol Levels in Rural China and the United States



With such an enormous difference in blood cholesterol levels, it is easy to see why heart disease, the most pervasive killer in America, is so rare in rural China. In fact, at the time of the survey, the death rate from heart disease was *17 times higher* among American men than it was among Chinese men. In one county, a county with almost 250,000 men, there was not one single recorded heart disease fatality among men under the age of 64 over a three-year observation period. Another county, a county with almost 200,000 women, also did not record a single heart disease fatality among women under the age of 64 over a three-year observation period.

As if this weren't enough information to tell us that something is drastically wrong with the standard American diet and lifestyle, supporting research makes the case incontrovertible. Dr. Dean Ornish, founder, president and director of the Preventive Medicine Research institute and Dr. Caldwell Esselstyn, Jr., a highly acclaimed surgeon from the Cleveland Clinic, the number one ranked heart disease treatment institution in the country, have conducted intervention studies on Americans with advanced heart disease and actually documented significant disease reversal by using dietary change as a primary treatment. The diet they used was a whole, predominantly whole plant foods diet.

All of this suggests one thing: simply by making better choices for breakfast, lunch, and dinner, you can avoid the most common killer in the United States

Findings from dozens of other studies around the world (elaborated on in the book, [The China Study](#))

- 8. Type I diabetes, a devastating disease that strikes young children, is strongly linked to cow's milk consumption and premature weaning.** For infants, the best food is human breast milk.

9. Eye diseases commonly associated with old age, including cataracts and macular degeneration, have been convincingly linked to diet.

Specifically, the antioxidants found in fruits and vegetables protect against these diseases. The best foods for your eyes: dark, green, leafy vegetables like spinach.

10. Bone health is strongly associated with the ratio of vegetable to animal protein intake. Your bones will thank you for eating more nutrient-rich plant foods and less animal foods. Populations that consume mostly plant-foods and lead more physically active lifestyles have much lower rates of hip fracture than we do in America, *even if they don't consume dairy foods or calcium supplements.*

11. Several studies have shown that type 2 diabetes, an increasingly urgent epidemic in America, can be reversed in patients simply by changing their diet to a high-fiber, unrefined, largely plant-based diet; in other words, a nutrient-rich diet.

12. So many studies have so consistently shown that dairy intake is linked to prostate cancer that Harvard researchers have said that a high dairy intake is one of the “most consistent dietary predictors for prostate cancer in the published literature.”

What follows is one of the most provocative finding in modern nutritional science...

13. Even though many of us worry about getting enough protein, evidence suggests that the real danger is consuming too much protein, especially if it is protein from the wrong foods.

Let's say you're strolling along outside in a park and you see two men eating lunch. One is eating a cheeseburger on a bun made of refined flour topped with lettuce, pickles, and tomatoes, and the other is eating a hearty vegetable stew with whole grain bread. If you found out that those two men always eat the same lunch day after day, which would you think is in greater danger of having nutrient deficiencies? Many people would undoubtedly say that the main concern is for the man eating the vegetables without any meat – he might not be getting enough protein.

Protein is the most sacred nutrient, the king of our nutritional worries. It has been this way ever since nutrition as a biochemical science emerged over 150 years ago. But when we look at the recommendations and research findings related to protein intake, we find that our concerns and beliefs may not be justified.

The government's long-standing required level of protein intake is about 0.8 grams of protein per kilogram of body weight. This is about the equivalent of 56 grams of protein for a 155 pound man and 48 grams of protein for a 132 pound woman. This level was set because it provides more than enough protein for growth and maintenance for almost the entire population, based on laboratory-based studies.

Protein Intakes Traditionally Recommended by the U.S. Government

Body Weight (pounds)	Protein Intake (grams)
150	54
200	73

In practice, however, Americans consume far more protein than required. On average, we consume about 90-95 grams of protein a day, with many people (people on high-protein diets or supplements) going far higher. In addition, Americans derive the vast majority of their protein from animal foods – meat, fish, and dairy foods. This is a double whammy – not only is it too much protein, it also turns out to be the unhealthiest kind.

Many findings already published in the scientific literature suggest that the health results of this dietary pattern are disastrous:

- Populations that consume more animal protein have higher blood cholesterol levels, which in turn are linked to greater rates of heart disease and cancer.
- Experimental animal research has consistently shown that proteins from animal sources consistently promote higher cholesterol levels than proteins from plant sources.
- A high animal protein diet allows more dangerous chemical carcinogens into our cells and then facilitates the process by which these carcinogens are transformed by enzymes and then bound to our DNA, creating cancer. In these experiments, plant protein has been shown to inhibit these processes.

- Animal protein has been found to promote high levels of Insulin-like Growth Factor I, or IGF-1, which, in turn, has been found to be a predictor of certain cancers.
- Women consuming diets high in animal-based protein produce greater amounts of reproductive hormones, which are linked to higher rates of breast cancer.
- Diets high in animal-protein have been shown to exacerbate the formation of kidney stones and draw calcium out of the bones, encouraging osteoporosis.

Conversely, diets that derive most of their protein from a rich variety of unrefined vegetables, legumes and whole grains, have the ability to prevent and sometimes even treat the conditions mentioned above, including heart disease, certain cancers, kidney stones, and osteoporosis.

This tiny sample of findings, which represents a large body of scientific literature, points to one conclusion: Americans consume too much protein and too much of it comes from animal sources. **The dual beliefs that we need as much protein as we can get and that meat is the only good source of this vital nutrient are the most dangerous myths in nutrition and health.**

Furthermore, because protein so often trumps all the other nutrients in our collective conscience, we forget all the other nutrients and micronutrients that have been shown to promote health. To return to the two men in the park, the man eating a hamburger on a bun made of white flour should probably be the one worrying about nutrient deficiencies. He's likely not getting enough vitamins, minerals, fiber or antioxidants. And as long as the man eating the vegetable stew eats plenty of unrefined legumes, and vegetables, he can forget protein and feel confident that he is getting all the other good nutrients to boot. It is just the opposite of what so many people tend to believe.

From John Allen Mollenhauer,

So there you have it and I have to emphasize, these findings are the *"tip of the iceberg"*. When you learn about the real relationship between diet (the quality of the food you eat) and disease, get in-depth insight into the realities of protein and it's affects on your health, and actually see the evolution of cancer...

...when you discover the **8 powerful principles of food and health** derived from all the research in and around The China Study, and learn how to navigate the modern day flood of nutritional information with help of the finest guide you can have,

T. Colin Campbell PhD, you will increase your confidence level significantly and simplify your life.

Too many people draw conclusions too fast from media information that promotes the status quo, is not promoting your health and is biased towards keeping people stuck, particularly when it comes to food and eating better. The truth is you are not likely getting the information you need to succeed for a variety of reasons. With that thought in mind NutrientRich.com will help you by:

- Providing the guidelines and recommendations and teaching you the finer points of how to go from poor to Rich, in terms of how you eat.
- Keeping you moving forward in your life towards good information that frees you. Be careful not to come to conclusions too fast, unless that conclusion is promoting your health and success. When you understand the findings of The China Study and the ins and outs of eating Nutrient Rich you will make a quantum leap in your health, and your success!
- Giving you the tools and the data, the powerful articles and insights you need to succeed in dramatically improving your health, to lose weight and be enthusiastic about eating, now free and no longer diet trapped.
- Directing you to products and services that will enable you to live your Nutrient Rich Lifestyle... better!

Get your copy of [The China Study](#), right now.

You can discuss these findings and other China Study Topics at the www.NutrientRich.com/ChinaStudy

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