

NI BOOK | VOLUME I 



NUTRITIONAL IMMUNOLOGY

The prevention science

TOWARDS HEALTH AND LONGEVITY

INTRODUCTION

NUTRITIONAL IMMUNOLOGY

Nutritional Immunology is a science that studies the link between nutrition and the human immune system. It explores in depth how to use proper nutrition to improve the health of the immune system, educating people about how to choose food wisely to enjoy a quality lifestyle, good health, and longevity.



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CHAPTER 1

THE IMMUNE

SYSTEM

Can human live until 120 years old?

Every year, about 17.5 million people die of heart disease and about 8.2 million people die of cancer. In fact, most people die from illnesses. But did you know that humans can live for 120 years and beyond? Yes! A long and healthy life is possible if you can fend off illnesses.

The key to a long life is a healthy immune system. Your immune system is your body's strongest defense against diseases, aging, and other threats to your health. Even in your sleep, your immune system runs silently in the background to keep you from harm.

The immune system is a complex network of organs and cells. Organs of the immune system include the bone marrow, the thymus, the lymph nodes, Peyer's patches, the appendix, and the spleen. Immune cells have different functions. Like soldiers in the army, navy, and air force, immune cells carry out specific attacks against different enemies. A strong immune system is always alert. It detects and destroys viruses, bacteria, cancer cells, and other threats even before they can begin to take hold and cause discomfort in the body.



IMMUNE SYSTEM IS A COMPLEX NETWORK



A HEALTHY IMMUNE SYSTEM IS THE BEST FORM OF PREVENTION

What will happen when the immune system is unhealthy?

In fact, the immune system is so complex that no medication can replace its safety and effectiveness. A healthy immune system really is the best form of prevention for the human body. On the other hand, a weak immune system can fail, leaving you prone to chronic diseases and infections. An unhealthy immune system may attack the body's own tissues or organs by mistake. This leads to autoimmune diseases such as lupus, rheumatoid arthritis, and type 1 diabetes. Plus, you are more prone to allergies when your immune system is not working well.

How do you keep your immune system in tip-top condition? Like a machine, it needs regular servicing. Whether you are young or old, you can nourish the immune system by consuming nutritious and wholesome plant foods every day. Genes can influence your lifespan, but so can your lifestyle. For a long, healthy life, eat a balanced diet, exercise regularly, and stay cheerful. Take good care of your immune system and it will take good care of you.



CHAPTER 2 WHOLESOME PLANT FOODS

What is the secret for longevity?

We all desire a long, full life. What if you could increase your chances of living a longer life? Imagine being around to see your great-grandchildren, or even your great-great-grandchildren. Nutritional Immunology focuses on exactly this. Nutritional Immunology teaches you how to eat healthily to prevent diseases and slow down the signs of aging. Scientists have found that human beings can live to 120 years old and beyond.

According to Nutritional Immunology, we should eat wholesome plant foods instead of food derived from animals. It is not enough to eat only one type of plant food. We should eat many different fruits and vegetables—as many as we can. The fruits and vegetables we eat should be rich in plant nutrients such as phytochemicals, antioxidants, and polysaccharides. These plant nutrients are best eaten in their natural form as whole fruits and vegetables. What this means is that the fruits and vegetables you see in the market are perfect for nourishing your immune system. They are the secret to a long life!



**PLANT NUTRIENTS ARE
BEST EATEN IN THEIR
NATURAL FORM**

FRUITS AND VEGGIES - THE BEST FOOD FOR IMMUNE SYSTEM

Do you know different plant species and growing conditions have different nutrient content?

Nutritional Immunology is always progressing. Our research has uncovered a lot of fascinating and useful knowledge on nutrients in fruits and vegetables. For example, different species of the same type of plant have different combinations of nutrients. Also, some parts of a plant are more nutritious than other parts. Our research has also found the best conditions for growing and harvesting plants, including temperature and the time of harvest.

All of us, especially busy people, need Nutritional Immunology. So we produce health food that makes it easy for busy people to eat plant foods. Our products are not medication and cannot replace medical advice or medication. They are simply convenient ways to eat plant foods. They are the same plant foods as those in the supermarket. The next time you hold a fruit or vegetable in your hand, remember that it is the best food for your immune system and a long life.





CHAPTER 3

PHYTOCHEMICALS, ANTIOXIDANTS, AND POLYSACCHARIDES

What are the 3 most important nutrients for our immune system and cancer prevention?

Plant foods contain three types of nutrients that nourish the immune system. They are phytochemicals, antioxidants, and polysaccharides.

First, let's look at phytochemicals. Phytochemicals are nutrients that are found only in plants. Each type of plant has a unique package of different phytochemicals. Examples of phytochemicals include lycopene in tomatoes and isoflavones in soy.

Some phytochemicals can halt specific stages of cancer progress. This means that while pollution can increase your risk of cancer, phytochemicals can help prevent cancer. You need different phytochemicals to fight cancer, so it is best to eat a variety of plant foods to obtain as many different phytochemicals as possible.

PHYTOCHEMICALS TO FIGHT CANCER



STRENGTHEN YOUR IMMUNE SYSTEM

What is the cause of aging and diseases?

You should eat plant foods, not phytochemical pills, because phytochemicals are safest and most beneficial in plant foods. In their most natural state, phytochemicals balance and complement one another. Plus, every plant food contains many different phytochemicals. A phytochemical pill can never compare with a fruit or vegetable in terms of safety and nutrition. Remember, phytochemicals are plant nutrients, so they belong in plants.

Antioxidants are another group of plant nutrients that are good for the immune system. They fight free radicals, which are unstable and harmful substances that speed up aging and cause many diseases. Antioxidants can protect the body against damage from free radicals. In this way, antioxidants help to slow down aging of the internal organs. This helps to reduce health risks in old age. A 50-year-old person with internal organs like those of a 40-year-old will fall sick less often than a 50-year-old person with internal organs like those of a 60-year-old. The different colors of fruits and vegetables indicate different nutrients. Eating a wide variety of different-colored fruits and vegetables will help you obtain a wide range of antioxidants for good health.

What's so great about mushrooms?

The last group of plant nutrients we'll look at are called polysaccharides. Polysaccharides are long-chain sugars. They are abundant in mushrooms, and different mushrooms have different polysaccharides. Each polysaccharide nourishes a different part of the immune system and boosts specific attacks against enemies. So you should eat a variety of mushrooms. There is a sea of scientific evidence showing that eating mushrooms has health benefits, one of which is cancer prevention. Mushrooms like ABM mushroom, maitake mushroom, reishi mushroom, shiitake mushroom, yun zhi mushroom, and cordyceps mycelium are good sources of polysaccharides.

Obtain phytochemicals, antioxidants, and polysaccharides for your immune system by eating a wide variety of fruits, vegetables, and mushrooms. You can further strengthen your immune system by staying happy, having an active lifestyle, and getting enough sleep. Choose your food, activities, and attitudes wisely. Every effort you make will add up to benefit your immune system greatly.



CHAPTER 4 START TAKING CARE OF YOUR HEALTH TODAY

What is the myth of the "early-stage cancer"?

Many people start taking care of their health only after they become ill. Young people often believe their youth will keep them from falling sick. So they do not take good care of their everyday health. However, as the saying goes, "Rome was not built in a day." The same can be said of disease.

When a person is diagnosed with cancer, people often describe the cancer as, for instance, terminal-stage stomach cancer or early-stage breast cancer. The truth is that for about two thirds of a cancer's existence, it develops without the patient even being aware of it. During that time, it is mostly undetectable by the doctor. This means that by the time a cancer is detected, it may have already developed to its terminal stage. So it's wrong to think that cancer has recently developed in a person with "early-stage cancer."

By the time a tumor is detected, cancer cells have already been growing for many years. For example, it may take six to eight years for modern medical equipment to detect breast cancer, while it can take 10–20 years to detect lung cancer and colorectal cancer. This means that a patient who has colorectal cancer in his 40s may already have had cancer cells in his body when he was in his 20s.





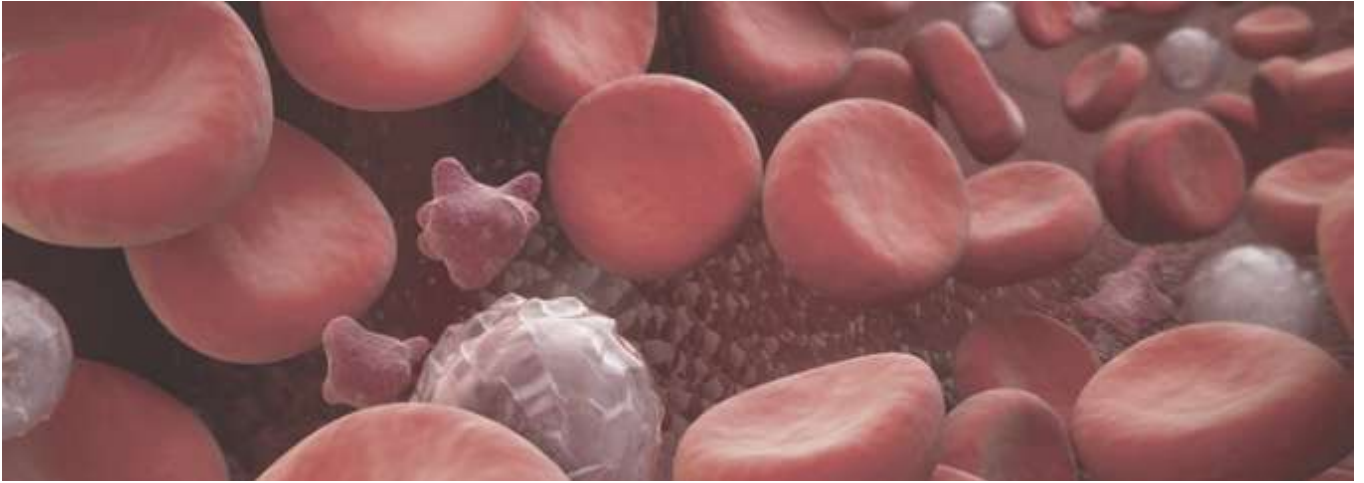
THE SPEED OF CANCER CELL GROWTH DEPENDS ON THE STRENGTH OF A PERSON'S IMMUNE SYSTEM.

Do you know how many cancer cells in a 1-cm sized tumor?

Cancer cells divide out of control and do not die off the way healthy cells do. For example, one cancer cell splits into two, two cells become four cells, four cells become eight cells, eight cells become 16 cells, and so on. Oftentimes, when a tumor is detected, it has already grown into a 1-cm-sized tumor. By then, there are at least 1 billion cancer cells in that tumor. During the time cancer remains undetected, when there are fewer cancer cells, a strong immune system can slow down cancer cell growth and even destroy cancer cells. In fact, a person could overcome cancer before ever knowing he or she has had it.

The speed of cancer cell growth depends on the strength of a person's immune system. For example, cancer cells would grow very quickly in a person who often keeps late nights and makes a habit of eating greasy foods and very few plant foods.

Taking care of your body should not wait until you are old or you fall sick. Now is the time to pay attention to the state of your health, especially while you are young and healthy. Take the first step towards good health by eating fewer animal-based foods and consuming a rich variety of colorful fruits and vegetables. Different plants contain distinctive phytochemicals, antioxidants, and polysaccharides, so they are good for your body in different ways. You should also exercise moderately and get sufficient rest. These habits help you maintain your health and the health of your immune system so you can fend off diseases and live a life full of vigor.



CHAPTER 5

DAILY NOURISHMENT AND CLEANSING

What is the best source of protein?

A functioning immune system prevents disease so your body continues to be healthy. To keep your immune system healthy, you need to nourish and cleanse your body daily.



Today, people often eat a lot of meat, dairy products, eggs, and other animal-based foods to get enough protein for good health. But more and more scientific research is showing that protein from animals can burden the body and increase the risk of cardiovascular disease, diabetes, cancer, and other diseases. The most nutritious foods for the human body do not come from animals, but from plants. Soy is a plant food that is high in protein and nutritional value and has many health benefits.



ANIMAL-BASED FOODS (ORGAN, SEAFOOD) CONTAIN HIGH LEVEL OF PURINE

Will soy cause gout?

Soy has about two times the protein of meat, almost three times the protein in chicken eggs, and 12 times the protein in milk. Unlike animal-based foods, soy is cholesterol free, low in fat, and will not burden the kidneys.

Some people are worried that soy will cause gout because of its purine content. This is not correct. Soy does not cause gout. Excessive levels of purine in the body cause gout. Soy contains purine, but its purine levels are lower than animal organs and other animal-based foods. The purine in soy is not enough to cause gout. Soy is also rich in phytochemicals that help to lower the risk of gout. Scientists studied more than 45,000 people over 12 years and found that soy does not cause gout.




PHYTOESTROGENS CAN HELP TO PREVENT CANCER

Is soy bad for breast cancer and prostate cancer patients?

Some people think that cancer patients such as those with breast cancer and prostate cancer should not eat soy because soy contains phytoestrogens. Many plants contain phytoestrogens. For example, isoflavones exist in many plants, including soy, but most people don't know that isoflavones are a group of phytoestrogens. Phytoestrogens will not lead to cancer. Instead, phytoestrogens can help to prevent cancer because they have very weak estrogenic action. Think of estrogens as keys. Imagine the places where these estrogens bind to the body as keyholes.

Animal hormones are very powerful. When they fit into the keyholes, they open the door to cancer. Phytoestrogens, on the other hand, are very weak. They fit into the keyholes but cannot open the door to cancer. They occupy the keyholes, and this prevents the cancer-causing animal estrogens from entering the keyholes. In this way, phytoestrogens can help to prevent cancer.

Soy has no side effects and does not cause cancer. Otherwise, why would it be used to make infant formula? Soy is rich in nutrients and offers many health benefits, so it's an ideal source of protein for the human body.



FIBER IS LIKE A BROOM, SWEEPS THE TOXINS OUT OF THE BODY

What kind of food contain the most fiber?

Cleansing the body is also important for good health. Fiber is the most important substance in helping us clear away waste in the body. Fiber is like a broom. It absorbs water in the intestines, wraps itself around toxins and waste, and “sweeps” them out of the body. An adult male needs around 38 g of fiber daily. An apple with skin has around 4 g of fiber. If he gets his fiber from apples, he would need to eat around 10 apples daily to get enough fiber. The only way to have daily bowel movements is to eat enough fiber and drink enough water. This prevents toxins from building up in the body.

Meat does not contain fiber. Only plants contain fiber. Psyllium husk, wheat bran, grains, and soy are some foods that are rich in fiber. For example, 100 g of psyllium husk contains around 78 g of fiber. That’s around 21 times that of the amount of fiber in an apple. Wheat bran contains over seven times the amount of fiber in apples.



CHANGE YOUR DIET NOW TO INCLUDE MORE PLANT-BASED PROTEIN AND FIBER

What is the best strategies to help your immune system and body maintain good health?

With mankind's progress, the environment is becoming more and more polluted. You are exposed to all sorts of pollutants, heavy metals, preservatives, dust, smoke, soot, and other substances. When you eat out, you eat a lot of salt, sugar, MSG, fat, and other things that burden the body. Green tea, cassia seeds, mulberry, blueberry, hawthorn, and other plants are rich in antioxidants. They help to reduce the body's chemical burden. These and a good amount of fiber will enable the body to cleanse itself.

Soy is like a yellow jewel amongst plant foods because it is so nutritious. The American Diabetes Association recommends soy as a source of protein. Change your diet now to include lots of soy and other foods that are rich in plant-based protein. Eat less meat, eggs, milk, and other animal-based foods. Feed your body with the most suitable nutrients. At the same time, eat enough fiber and complement it with green tea, blueberry, hawthorn, and other plant foods to help your body clear toxins and waste. These are the best strategies to help your immune system and body maintain good health.

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IMMUNOLOGY IS A
WISDOM OF HEALTHY LIFE.**

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Nutrition · Immunity · Longevity

Jau-Fei Chen, PhD
Immunologist

Eexin-Talk



Email: eexin68@gmail.com

Contact: +65 9338 2390 (WhatsApp / WeChat)

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