



Nutrients & Herbal Remedies to Boost Your Immunity and Fight Viral Infections

A GUIDE OF THE NURIENTS, FOODS,
AND HERBS TO IMPROVE
YOUR IMMUNE SYSTEM & FIGHT VIRUSES



ELIEZER ARCHANGE, MSHA, RDN



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NUTRIENTS & HERBAL REMEDIES TO BOOST YOUR IMMUNITY

**A Guide to Help Improve Your Immune System and Fight
Viruses**

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DEDICATION

I dedicate this book to:

God, for inspiring me to write this book.

My beautiful wife, Majorie, who brought forth God's confirmation to write
the book.

My beloved children, Vanessa, Nazer, Bradley, and Jayden.

INTRODUCTION

The spread of SARS-CoV2 has impacted everyone's lives worldwide and, more specifically, the United States. As of July 2020, we had more than three million confirmed cases and more than one hundred thirty-five thousand deaths. Also, National Public Radio (NPR) reported more than twenty-six million jobs lost due to this pandemic.

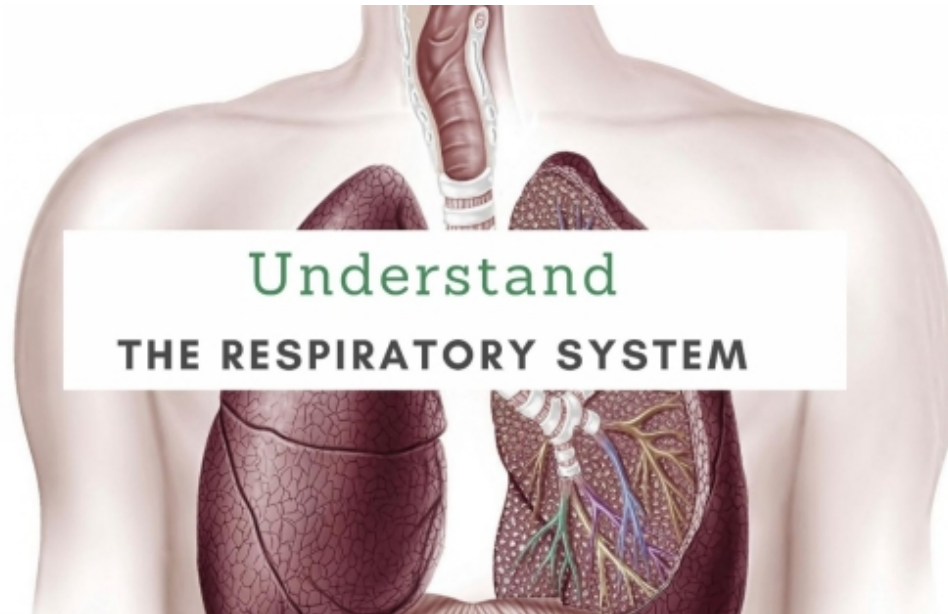
Our way of life has been drastically disrupted and may never come back to normal. Schools have been closed in almost every country, and small businesses have had a hard time keeping their lights on. School food service departments around the country have been searching for new and innovative ways to continue feeding young students. Above all, hospitals, and frontline health workers (doctors, nurses, other personal) are hurting with a lack of Personal Protective Equipment (PPE), shortage of ventilators and medications, and the stress of seeing patients dying alone. Finally, churches around the United States and many parts of the world have not been able to hold services.

Amid this crisis, I felt compelled to write a book that people can use as a reference and a guide to the key nutrients and herbal remedies that can help strengthen the immune system and fight viral infections.

This book contains a list of nutrients, their food sources, and twenty-two herbal remedies that are well-known for their roles in supporting the immune system and treating viral illnesses.

CHAPTER ONE

An Overview of the Respiratory System



Respiratory diseases place a heavy burden on the health care systems in both the United States and the rest of the world. In its second edition titled "Global Impact of Respiratory Disease," the Forum of International Respiratory Societies (FIRS) notes that respiratory diseases are leading causes of death and disability in the world, killing about 4 million people yearly².

There are two main parts of the Respiratory System: the upper and the lower respiratory tracts.

- **The Parts of the Upper Respiratory Tract**
 - Nose: makes it possible for the body to receive air. The nose also allows us to smell.

- Nasal cavity: that is the inside of your nose. It takes part in keeping your nose moist.
 - Sinuses: their crucial role consists of protecting the nose from pollutants, microorganisms, dust, and dirt.
 - Larynx: it helps to keep food and drinks from blocking the airway.
 - Trachea: it provides airflow to and from the lungs for respiration.
- **The Parts of the Lower Respiratory Tract**
 - Lungs: allow the body to obtain oxygen and remove carbon dioxide.
 - Bronchi: it carries air to the bronchus.
 - Alveoli: it works in the exchange of oxygen and carbon dioxide molecules to and from the bloodstream.

CHAPTER TWO

A Look into Respiratory Tract Infections

The National Center for Biotechnology Information (NCBI) describes Respiratory Tract Infections (RTI) as infectious diseases of the upper or lower respiratory tract³ – Which may affect the sinuses, the throat, the airways, and lungs.



Respiratory Tract INFECTIONS

Difference between Upper and Lower Respiratory Infections

- The Lower Respiratory Infections (LRTI)

Lower respiratory tract infection (LRTI) consists of:

- Pneumonia: Infection of the lungs.

- Bronchitis: this occurs when the bronchial tubes, which carry air to and from the lungs, become inflamed.
- Chronic Obstructive Pulmonary Disease is also known as COPD: Chronic inflammation of the lungs.
- Flu: This is referred to as an infectious disease produced by influenza viruses.
- Tuberculosis: A bacterial related disease spread from one person to another.

Some of the "Common Symptoms" of the Lower Respiratory Infections are runny nose, dry cough, low or high fever, sore throat, headaches, difficulty breathing, wheezing, and chest pain.

- The Upper Respiratory Infections (URTI)

Micah Thomas and Paul A. Bomar (2020) define Upper Respiratory Tract Infections as self-limited irritation and swelling of the upper airways with associated cough with no proof of pneumonia, lacking a separate condition to account for the patient symptoms, or with no history of COPD/emphysema/chronic bronchitis⁴.

Some of the Conditions of the Upper Respiration Infections include:

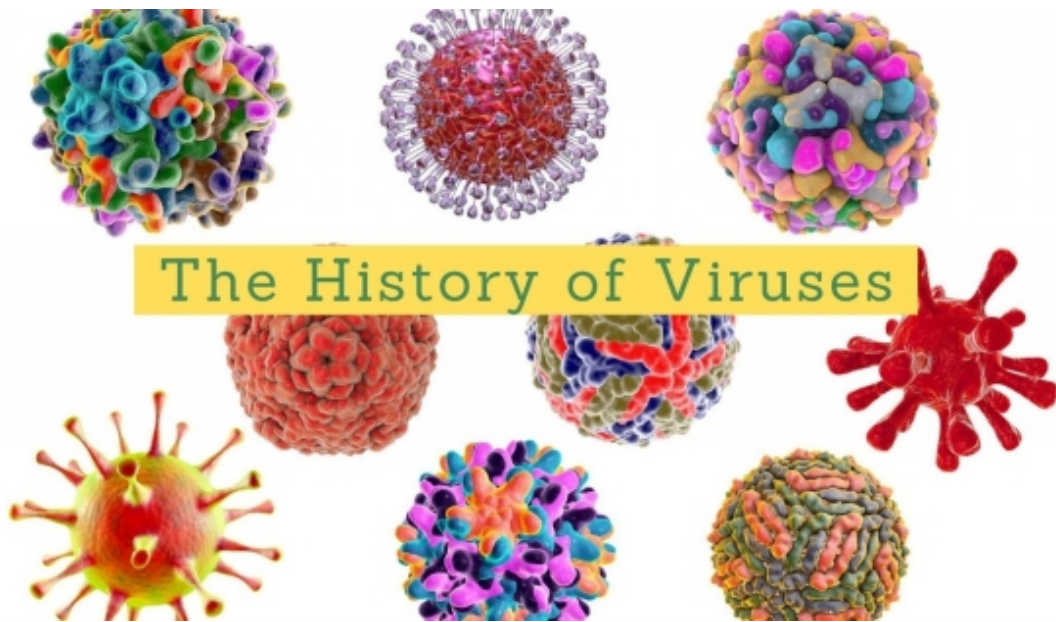
- The "Common Cold" – Which can be caused by:
 - Rhinovirus
 - Adenovirus
 - Parainfluenza virus
 - Respiratory syncytial virus
 - Enterovirus
- Tonsillitis – This occurs when the tonsils (located in the back of the throat) are becoming inflamed. This condition may lead to sore throat and difficulty swallowing, headache, and fever.
- Sinusitis – This means an inflammation of the sinuses. Common symptoms of sinuses are loss of smell, cough, congestion, nasal obstruction, fatigue, and fever.
- Laryngitis – Inflammation of the vocal cords.
- Flu: a contagious respiratory disease caused by influenza viruses.

Some of the "Common Symptoms" of the Upper Respiratory Infections Include cough, headaches, aching muscles, runny nose, nasal congestion, sneezing, sore throat, and fever.

CHAPTER THREE

Viruses: A Brief Look at History

Understanding "SARS-CoV2" and how it affects your body may put you in a better position to fight and win the battle against this latest viral infection. What exactly is "SARS-Cov2?"



Coronavirus is not the first virus to threatening our existence on earth. The world has been battling viral infections for generations - And SARS-CoV2 is most likely not our last one. When we look back into history, we find several deadly viral outbreaks.

- The "Plague of Athens" in 430 BC killed an estimated one-hundred thousand people.
- The "Antonine Plague" in 165 AD killed an estimated five million people in Asia Minor, Egypt, Greece, and Italy.
- The "Plague of Justinian" between 541 and 542. That outbreak killed more than 25 million people in Europe.
- The "Black Death" of 1346 and 1353. That plague occurred in Europe, Africa, and Asia. An estimated two-hundred million people have lost their lives to that outbreak.

- Between 1852 and 1850, the world experienced the third Cholera pandemic – Which possibly originated in India and spreading itself into Asia, Europe, North America, and Africa, killing about more than one million people.
- The "Flu" pandemic, historically known as "Asiatic Flu" or "Russian Flu" occurred between 1889 and 1890. The Influenza A virus subtype H3N8 caused it. That pandemic claimed the death of over one million people in Central Asia, Northwestern Canada, and Greenland.
- The "Sixth Cholera Pandemic" hit the world between 1910 and 1911, killing more than eight-hundred thousand people in India, the Middle East, North Africa, Eastern Europe, and Russia.
- In 1918, the world faced one of the deadliest "Flu" pandemic (H1N1) that killed anywhere between twenty to fifty million people.
- Several years later, in 1956, the world knew the "Asian Flu," an outbreak of Influenza A of the H2N2 subtype. An estimated two million people have died from it.
- Then we had the 1968 "Flu" pandemic. Over one million people had died in Hong Kong, the Philippines, India, Australia, United States, and Europe.
- The HIV/AIDS pandemic. According to the World Health Organization (WHO), as of 2018, the world has known more than seventy-five million confirmed cases with a death toll of about thirty-two million people⁵.
- The H1N1 Swine Flu pandemic. The 2009 swine flu originated in Mexico. According to the CDC, more than five hundred thousand people had died from it.
- Who can forget the West African Ebola epidemic in 2014 or the Zika virus epidemic in 2015?

CHAPTER FOUR

SARS-CoV2: What is it?

Luke 14 verse 31 (NKJV) says, "Or what king, going to make war against another king, does not sit down first and consider whether he is able with ten thousand to meet him who comes against him with twenty thousand?". Studying your enemy is a fundamental principle that every country uses before taking on a war against another one. It would be foolish to go into a fight without taking the time to analyze the strengths and weaknesses of the enemy. That is precisely the same principle that we are going to use in this book.



SARS-CoV2 is a respiratory infectious disease. Experts believe that the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) causes it⁶. The history of coronavirus goes as far back as the 1930s when a group of experts discovered it in poultry.

As of today, among all the coronavirus discovered, only seven of them are thought to cause diseases in people. Here is a list of the most well-known culprits:

- 229E Virus

Studies show that this type of virus, which can cause severe upper respiratory tract infections in healthy individuals, can remain active on surfaces for multiple days.

- OC43 Virus

This subtype of coronavirus (HCoV-OC43) is associated with both lower and upper respiratory infections. The most common symptoms of HCoV-OC43 are fever, cough, and many more.

- NL63 Virus

HCoV-NL63 mostly infects young children. The first case was observed in a seven-month-old baby in 2004 in Amsterdam. It may lead to both upper and lower respiratory infections in patients.

- HUK1 Virus

This human coronavirus strain has been successively detected in the respiratory specimen around 2005 by a group of researchers based in Hong Kong, China. In 2007, another group of researchers showed that HUK1 was the most common subtype of coronaviruses found in children⁷ – Suspecting to have led to asthma attack, respiratory, and enteric diseases.

- MERS-CoV

Middle East respiratory syndrome coronavirus, also known as MERS-CoV, was first discovered in the year 2012. This virus can cause severe illnesses in people. MERS-CoV is a novel beta-coronavirus with high pathogenicity, which imposes a grave threat to human health with the largest outbreak in Saudi Arabia (2014) and a significant mortality rate⁸. This virus can cause acute respiratory infections.

- SARS-CoV

The origin of Severe Acute Respiratory Syndrome (SARS) Coronavirus (SARS-Cov) is debatable. SARS is a highly contagious and lethal illness. Experts believe that is caused by a novel type of coronavirus known to infect domestic birds and mammals, including humans⁹.

The first case of SARS was detected in Guangdong China in 2002, and it rapidly became an epidemic that spread in twenty-nine countries. More

than 800 people had lost their lives during that outbreak.

SARS-CoV spreads person-to-person by large respiratory droplets, aerosols, and fecal-oral transmission (diarrhea is a common manifestation of the infection)¹⁰ .

SARS can cause fever, chills, muscle aches, headache, dry cough, and shortness of breath. Patients may experience pneumonia and difficulty breathing.

- SARS-CoV2

SARS-CoV2 inherits its name because of its genetic relationship to the first SARS-CoV of 2002. In the late December 2019, SARS-CoV-2 was identified as the cause of an outbreak of viral pneumonia in Wuhan, China – And later became what a pandemic that kills many people around the world. Many researchers believe that the viral infection has its origin in bats that have passed it onto human beings at a seafood market in Wuhan through an intermediate mammal.

The virus spread at a much faster rate than SARS CoV – Which makes it much more transmissible than SARS-CoV.

Many health experts believe that SARS-CoV2 spreads mainly by:

- Inhaling large respiratory droplets after an infected person has coughed around you.
- Touching surfaces that are contaminated with the virus and then touching your mouth, your eyes, or nose.
- Inhaling small airborne respiratory emissions containing the virus.
- Being exposed to fecal-oral transmission.

This pandemic has been a real invisible enemy, causing enormous problems around the globe. So far, no nation has been spared from this catastrophic virus. As I was writing this paragraph, more than thirteen million people have already contracted the virus, and close to six-hundred thousand individuals have lost their lives in two-hundred and two countries and territories.

According to CNN, the number of cases in the United States as of July 16, 2020:

- Total cases: 3,536,658
- Total deaths: 137,897

The viral infection may cause a series of symptoms like:

- Sore throat
- Coughing
- Fever
- Chills
- Body aches
- Fatigue
- Loss of taste
- Loss of appetite
- Loss of sense of smell
- Headaches
- Diarrhea
- Shortness of breath.

Moreover, the risks that pose SARS-CoV2 seem to be higher for certain groups of people. This group includes people with underlying medical conditions like diabetes, heart disease, and lung disease, as well as the elderly population. Also, statistics show that the risk is higher for men than women.

Brief, all three viruses, SARS-CoV-2, MERS-CoV, and SARS-CoV, are believed to have their origins in bats.

Chapter Five

Cold – Flu – Allergies – SARS-CoV2: Is there a Difference?

What is the difference between a common cold, flu, seasonal allergies, and the SARS-CoV2? They can all cause coughing, fever, chills, and body aches.

Common Cold

The common cold is a respiratory tract infection that affects the nose and throat. Its signs and symptoms will vary from one person to the next.

Common Signs and Symptoms of Colds are:

- Sneezing
- Aches & Pains
- Runny or stuffy nose
- Sore throat

Seasonal Allergies

Seasonal allergies are the results of exposure to airborne substances like pollens that come during seasons such as spring (trees), summer (grasses), and fall (ragweed).

Common Signs and Symptoms of Seasonal Allergies are:

- Fatigue
- Cough
- Sneezing
- Runny or stuffy nose

The Flu

Influenza, commonly called the flu, is a viral infection that affects your lungs and airways¹¹. The flu spreads from person to person. Its common symptoms are fever, chills, headache, sore throat, and cough.

Common Signs and Symptoms of Seasonal Allergies are:

- Fever
- Fatigue
- Dry cough
- Aches & Pains
- Headaches

CHAPTER SIX

The Immune System & the Fight against Viral Infections

Viruses are obligate parasites. That is, to reproduce and grow, they have to hijack living cells – Which can cause cell damage, change cell functions, or lead to the destruction of the host cells.



Please note that antibiotics do not work against viruses - Which does not mean that we, as citizens of the world, have not made any progress in our fight against them. We have. There have been many milestones in the development of antiviral drugs. Some of the most known discoveries include:

- Anti-herpes medications like Acyclovir, Brivudin, Cidofovir, Famciclovir, and Fomivirsen against herpes, Vidarabine, Valganciclovir, and Valacyclovir
- Antiviral drugs that help fight influenzas, such as Amantadine, Rimantadine, Oseltamivir phosphate, and Zanamivir.
- Antiviral drugs that help fight hepatitis like Interferons, Ribavirin, Adefovir dipivoxil, and Emtricitabine.

Despite those significant discoveries, we must admit that developing antiviral drugs has proven to be a complicated process – And, there may not be enough time to save people's lives during the spread of a viral infection pandemic.

Alternately to antiviral medications and vaccination, naturally improving the immune system has been proven to be an effective and efficient way of fighting infectious diseases caused by viruses, bacteria, and fungi.

CHAPTER SEVEN

Understanding How the Immune System Works

The primary role of the immune system is to help you prevent, limit, and fight infections. Individuals with compromised immune systems may be more susceptible to becoming sick from microbes than those with healthy immune systems.

The "Immune System" is made of organs, tissues, cells, and molecules. They work as an army that protects people against microorganisms, removes toxins from our bodies, and kills tumor cells. When we are under attack from microorganisms, viruses, or tumor cells, the immune response helps identify the threat, and eliminate the pathogens. Also, it helps our bodies remember the culprit if it returns.

- Innate Immune Response

The innate immune response consists of non-specific cells that not able to distinguish between one group of attackers to another. Its response to outside invaders is fast – but it not able to remember the attackers. For example, after being attacked by a virus, a person may develop a fever that fights it off. However, if the same virus were to attack again, the innate immune response would not have any memory of that virus.

- Adaptive Immune Response

Contrary to the innate, the adaptive immune response, also known as acquired immunity, uses specific cells to mount the immune response. The adaptive immune response takes longer to learn about the attackers and uses that memory to enhance the immune response accordingly.

The adaptive immune response relies on the B cells and T cells to defend us.

- The White Blood Cells

The White Blood Cells or Leukocytes protect you against illness and disease. They regularly travel through your bloodstream to fight viruses,

bacteria, and other foreign culprits.

CHAPTER EIGHT

Nutrition and the Immune System



Nutrition plays a significant role in determining how the immune system responds to viruses, microbes, and other outsiders. Nutrient deficiencies can negatively affect how your immune system responds to threats. The immune system interacts with nutrients like zinc, selenium, vitamin A, and many more nutrients.

Nutrition and the immune system work hand in hand to fight invaders like viruses, bacteria, and fungi. Evidently, eating healthy is critical to a robust immune system, prevention from seasonal illness, viral pandemic, and other health problems.

In the next sections, I will detail the list of nutrients, their food sources, and herbal remedies that have gained a reputation for supporting the immune system.

CHAPTER NINE

Nutrients to Help Boost Your Immune System

Protein

Protein is an essential macronutrient - required for normal body functioning, and it must be obtained solely from foods because the body cannot and will not make it. You have protein throughout your body, like your muscle, bone, skin, hair, and virtually every other body part.



Functions of Protein in the Body

Proteins play several vital roles in the body. That is:

- Providing energy.
- Transporting oxygen throughout the body.
- Directing specific biochemical reactions within the body.
- Breaking down the components of bacterial cell walls.
- Identifying and binding to specific foreign molecules – that is what we call antibodies.
- Facilitating growth and maintenance of body tissues.
- Behaving as chemical messengers in the body.

- Providing structures.
- Maintaining proper PH (balance between acids and bases).
- Balancing body fluids.
- Transporting and storing nutrients within the body.
- Supporting good immune health.

Protein and the Immune System

Protein plays an essential role in the formation of something called immunoglobulins, or antibodies. Antibodies help protect the body from bacteria and viruses.

How Much Protein Do I Need?

The amount of protein that we need varies by an individual's age, gender, temperature, level of energy, micronutrient intake, infection, activity level, past diet, the existence of trauma, pregnancy, and lactation.

Note: As you review the table, keep in mind that your daily nutrient requirements might need to be adjusted based on your situation. Talk to your Medical Doctor or Registered Dietitian regarding your daily nutrients needs .

The table below outlines the daily protein goals for age and gender based on the Dietary Reference Intakes and Dietary Guidelines for Americans 2015-2020.

Sources of Goal		Child	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
		1 - 3	4 - 8	9 - 13	14 - 18	19 - 30	31 - 50	51+	1 - 3	4 - 8	9 - 13	14 - 18	19 - 30	31+
Calorie Levels		1,000	1,200	1,400	1,600	1,800	1,800	2,200	2,400	2,600	1,800	2,200	1,600	2,200
				1,600				2,800	3,000					
Protein (g)	RDA	13	19	19	34	34	46	52	46	56	46	56	46	56

Source: https://health.gov/sites/default/files/2019-09/2015-2020_Dietary_Guidelines.pdf

The Recommended Dietary Allowance (RDA) for protein is 0.8 grams of protein per kilogram of body weight or 0.36 grams per pound. Keep in mind that the result of this calculation would represent only the minimum amount you need to keep you from getting sick and may or may not be the specific amount that you need based on other factors.

Other daily recommendations for protein intake include:

- The General, Healthful Diet: 10% to 20% of your daily energy needs.
- Therapeutic Lifestyle Changes Diet Guidelines: 15% of your daily energy needs.

Note that the daily protein needs for pregnant or nursing teenagers may be as high as 71 grams per day.

Protein Food Sources

What are some of the best and healthiest sources of protein? When you are ready to select your protein foods, keep your focus on nutrient-dense foods – that is, foods that are high in nutrients and low in calories. These foods can be found from both animals and plant food groups like seafood, meat, poultry, eggs, nuts, seeds, soy products, and legumes.

The USDA publishes the list of foods along with their protein contents. For a full list of the protein food sources, see our reference page for more information.

High Nutrient-Dense Protein Foods List with the amount in Gram
Source: (USDA National Nutrient Database for Standard Reference Legacy (2018))

Food Descriptions	Portions	Protein Contents
Beverages, Whey protein powder isolate	8.0 scoop	50
Chicken, gizzard, all classes, cooked, simmered	1.0 cup chopped or dice	44.07
Beans, pink, mature seeds, raw	1.0 cup	44.02
Fish, yellowtail, mixed species, cooked, dry heat	0.5 fillet	43.82
Beans, black, mature seeds, raw	1.0 cup	41.9
Chicken, broilers or fryers, dark meat, meat only, cooked	1.0 cup	40.59
Pork, fresh, leg (ham), whole, separable lean only, cooked, roasted	1.0 cup, diced	39.7
Beverages, Whey protein powder isolate	8.0 scoop	50
Beans, adzuki, mature seeds, raw	1.0 cup	39.14
Peanuts, valencia, oil-roasted, without salt	1.0 cup	38.94
Turkey, all classes, back, meat and skin, cooked, roasted	1.0 cup, chopped or diced	37.23
Cheese, Swiss	1.0 cup, diced	35.59
Peanuts, all types, dry-roasted, without salt	1.0 cup	35.55
Chicken, broilers or fryers, drumstick, meat, and skin, cooked, stewed	1.0 cup, chopped or diced	35.45

Tips/Recommendations for Selecting Healthy Protein Foods

Nutrient-dense protein foods provide many other nutrients that benefit the immune system. These are niacin, B12 vitamin, B6 vitamin, riboflavin, selenium, choline, phosphorus, vitamin E, zinc, copper, heme iron, and vitamin D.

When selecting protein food sources, keep in mind that not all of them are created equal. Some are healthier than others.

Follow the following suggestions when selecting protein food sources:

- Fresh or frozen lean, trimmed cuts of beef, pork, or lamb.
- Avoid processed red meats or poultry like bacon, sausage, and ham.
- Fresh or frozen skinless chicken or turkey.
- Fresh, frozen, or canned fish and other seafood.
- Avoid frying red meat, poultry, seafood, or eggs as a cooking method.
- Eggs or egg substitutes.
- Unsalted nuts and seeds.
- Avoid bologna or salami.
- Soy foods.
- Legume food sources like lentils, dried beans, or peas.

MY RECOMMENDATION FOR PROTEIN FOOD SOURCES

Almonds

Origins & History.

Historically, almond is referred to as the product of hope and good fortune. The history of almonds goes back to the time of the Bible. We found a reference for almonds in Genesis 43, verse 11, when Jacob asked his sons to pick the best products of the land – including "Almonds" to be offered to Pharaoh. Almonds originated from Western Asia and the Middle East. Its principal place(s) of production are Spain, Italy, and the United States



Health Benefits of Almonds

Almonds are highly nutritious, and they contain a minimal amount of calories. They are rich in protein as well as vitamin E, calcium, magnesium, iron, and zinc. Also, almonds are excellent sources of antioxidants, which may help control blood sugar, blood cholesterol, and reduce breast cancer in women.

Nutrition Facts for 1 Ounce Almonds

- Calorie: 164
- Protein: 6 grams
- Carbohydrate: 6.11 grams
- Fiber: 3.5 grams
- Zinc: 0.89 milligrams
- Selenium: 1.16 micrograms
- Folate: 12.5 micrograms
- Vitamin E: 7.27 milligrams

Dried Beans such as black beans, blackeye, dark red kidney beans, light red kidney, navy beans, and pinto beans



Origins & History.

- Beans describe a group of plants from the family Leguminosae.
- The history of beans is as old as the history of humanity.

Health Benefits of Dried Beans

Beans provide complex carbohydrates, dietary fiber, and may help with elimination. Also, they are rich in protein, B vitamins, calcium, iron, and phytochemicals.

Nutrition Facts of 1/2 Cup of Cooked Black Beans

- 132 kcal
- 8.86 grams of protein
- 8.7 grams of dietary fiber
- 27 milligrams of calcium
- 2 milligrams of iron
- 70 milligrams of magnesium
- 1.12 milligrams of zinc
- 1.2 micrograms of selenium
- 149 micrograms of folate

Brazil Nuts



Origins & History.

Brazil nuts originated in the Amazon Basin, and they are mainly produced in Brazil and Bolivia. They are one of the most excellent sources of "Selenium."

Health Benefits of Brazil Nuts

Brazil nuts are nutrient-dense, and they are rich in selenium. They may help reduce inflammation and support the proper functioning of your heart, brain, and immune system.

Nutrition Facts of one Ounce of Brazil Nuts

- 187 calories
- 4.1 grams of protein
- 2.1 grams of fiber
- 988% of the RDI for Selenium
- 55% of the RDI for Copper
- 10.5% of the RDI for Zinc
- 11% of the RDI for Vitamin E.

Homemade Chicken Soups



Origins & History

Like it or not, chicken soup has undeniably made its name for one of the most popular dishes around the world in the time of sickness.

Health Benefits of Homemade Chicken Soup

Studies show that homemade chicken soup may help fight nasal congestion and ease cold symptoms. It may contain carrots, onions, celery sticks, and garlic gloves, which are good sources of vitamins like vitamins A, biotin, B6 vitamin, some minerals, and antioxidants.

Nutrition Facts of 1.5 Cups of Chicken Soup

- Calorie: 223
- 320 milligrams of Sodium
- 5 grams of Fat
- 15 grams of Carbohydrates
- 5 grams of Fiber
- 24 grams of Protein

Edamame

Origins & History.

As a complete protein, edamame contains all the essential amino acids. Edamame has its origin in either China or Korea, and its history goes as far back as 2,200 years. It entered the United States in 1902. The leading producers of edamame are the United States, Brazil, and Argentina. Several well-known health magazines classified edamame as one of the superfoods.

Health Benefits of Edamame

Edamame is packed with great health benefits. First, edamame provides the body with all the essential amino acids that it needs. Second, studies show that edamame may help lower blood cholesterol, does not raise blood sugar levels, and reduce the risk of breast cancer.

Nutrition Facts of 3.5 Ounces of Edamame

- Calorie: 129
- Protein: 13.2 grams
- Carbohydrate: 8.9 grams
- Fiber: 5.6 grams
- Vitamin C: 11.4 milligrams
- Calcium: 70.8 milligrams
- Iron: 2.5 milligrams
- Magnesium: 72 milligrams
- Zinc: 1.6 milligrams
- Folate: 358 micrograms

Eggs

Origins & History.

People have been eaten eggs since the beginning of time.

Archaeologists believe that eggs have already been consumed in Egypt around 1500 BCE.

Health Benefits of Eggs

Egg is one of the least expensive nutrient-dense foods that provide high-quality protein, vitamin A, B vitamins, iron, zinc, selenium, and calcium.

Nutrition Facts of One Large Egg

- Calorie: 71.5
- Protein: 6 grams
- Calcium: 28 milligrams
- Iron: 0.88 milligrams
- Zinc: 0.65 milligrams
- Selenium: 15.4 micrograms or 22% of the RDA
- Folate: 23.5 micrograms or 5% of the RDA vitamin A, RAE: 80 micrograms, or 6% of RDA.

Flaxseeds

Origins & History.

The history of flaxseed goes back several centuries. It is among the oldest crops used because of its health attributes. Multiple researchers believe in having found linen made from flax in the tombs of Egyptian pharaohs. Flax seeds are grown in Asia, South America, Europe, and the United States.

Health Benefits of Flax Seeds

The health properties of flaxseed are well documented and indisputable. Flaxseed is high in nutrients like protein, fiber, omega-3 fatty acids, vitamins, and minerals. Besides, evidence from studies suggests that flaxseed may help reduce certain cancers, lower blood cholesterol, reduce blood pressure levels, control blood sugar, and improve the immune system.

Nutrition Facts of 1 Tablespoon of Flaxseeds (whole)

- Calorie: 55
- Protein: 1.88 grams
- Dietary fiber: 2.81 grams
- Calcium: 26.3 milligrams
- Iron: 0.59 milligrams
- Magnesium: 40.4 milligrams
- Selenium: 2.62 micrograms
- Folate: 8.96 micrograms

Salmon: The Fresh/Saltwater Fish



Origins & History

Salmon is frankly one of the most fantastic food sources of high-quality protein. Salmon has its origin in North Atlantic and has been around for several thousand years. Historically, salmon is served either baked, grilled, poached, or smoked.

Health Benefits of Salmon

Salmon is indisputably well known for its high content of omega-3 fatty acids EPA and DHA, high-quality protein, B vitamins, potassium, and selenium. Also, salmon has several other great health benefits like astaxanthin, reduces heart disease, helps control body weight, and protect against inflammation.

Nutrition Facts of Salmon

3.0 ounces of wild salmon provide:

- Calorie: 121
- 2.16 grams of fatty acids
- Protein: 16.9 grams
- Calcium: 10.2 milligrams
- Iron: 0.68 milligrams
- Magnesium: 24.6 milligrams
- Selenium: 31 micrograms or about 67%
- Folate: 21.2 micrograms

- Vitamin B6: 0.695 or about 47% of B6 vitamin
- Vitamin B12: 2.7 micrograms or 51%

Tuna Fish, Fresh



Origins & History

Tuna has its origin in the Mediterranean Sea and the Atlantic Ocean. There is a wide variety of tuna species like the Atlantic Bluefin, the Southern Bluefin, Bigeye, Yellowfin, and White tuna.

Health Benefits of Tuna

There are many health benefits to eating tuna. As multiple studies show, eating tuna may help reduce heart diseases, reduce blood pressure, improve the immune system, fight depression, and make your bones strong.

Nutrition Facts of 3.0 Ounces of Bluefin Tuna

- Calorie: 122
- Protein: 19.8 grams or 66% of the DRI
- Calcium: 6.8 milligrams
- Iron: 0.87 milligrams
- Magnesium: 42.5 milligrams
- Phosphorus: 216 milligrams
- Potassium: 214 milligrams
- Selenium: 31 micrograms or 223% of the DRI
- 156% of the DRI for B3
- Vitamin B12: 8.02 micrograms or 111% of the DRI
- Vitamin B6: 0.387 microgram or 69% of the DRI

- Vitamin D: 193 IU (International Unit).

Walnuts



Origins & History

The origins and history of walnuts go back several thousand years. They originated from Ancient Persia, and they are mostly produced in China, Iran, and California. As history tells us, there has been a strong belief that walnuts can be used as both food and medicine.

Health Benefits of Walnuts

Walnuts are very nutritious. They are an excellent source of high-quality protein, antioxidants, omega-3 fatty acids, vitamin E, iron, calcium, magnesium, phosphorus, and manganese. Also, studies find that walnuts may help reduce inflammation, improve gut health, decrease the risk of certain cancers, manage body weight, and lower blood pressure.

Nutrition Facts of one Ounce of Walnuts

- Calories: 185
- Protein: 4.32 grams
- Fiber: 1.9 grams
- Calcium: 27.8 milligrams
- Iron: 0.825 milligrams
- Phosphorus: 98 milligrams
- Potassium: 125 milligrams
- Zinc: 0.876 milligrams

- Selenium: 1.4 micrograms
- Folate: 27.8 micrograms.

Vitamin A

Vitamin A is one of the four fat-soluble (diluted in fat/not water) vitamins that are stored in both the liver and adipose tissue. It is an essential micronutrient. Historically, vitamin A has long been considered as a form of treatment for night blindness.



Consuming too much vitamin, A can be toxic to the body and may lead to hypervitaminosis. People who suffer from this illness often experience headaches, blurring vision, hair loss, skin lesions, anorexia, weight loss, and irritability. Not having enough vitamin A for an extended period may put someone at risk for infection from viruses, impaired vision, and even blindness.

Functions of Vitamin A

Vitamin A has several essential roles in the body. It helps form and maintains healthy teeth, skeletal and soft tissues, and the mucus membranes. Vitamin A also promotes good eyesight and fights chronic disease producing free radicals.

Vitamin A and the Immune System

Vitamin A supports the immune system by providing your body with what it needs to respond to infections and diseases. It creates β -cells and T-cells for our bodies to use. Those cells help our bodies identify and block outside invaders like viruses.

How Much Vitamin A Do I Need?

The National Academy of Sciences Food and Nutrition Board publishes the Dietary Reference Intake (DRI) for vitamin A.

Note: As you review the table, keep in mind that your daily nutrient requirements might need to be adjusted based on your situation. Talk to your Medical Doctor or Registered Dietitian regarding your daily nutrients needs.

Age Group	Male	Female	Pregnant	Breastfeeding
0 - 6 Months	400 µg/day	400 µg/day		
6 - 12 Months	500 µg/day	500 µg/day		
1 - 3 Yrs.	300 µg/day	300 µg/day		
4 - 7 Yrs.	400 µg/day	400 µg/day		
8 - 13 Yrs.	600 µg/day	600 µg/day		
14 - 18 Yrs.	900 µg/day	700 µg/day	750 µg/day	1200 µg/day
19 - 30 Yrs.	900 µg/day	700 µg/day	770 µg/day	1300 µg/day
31 - 50 Yrs.	900 µg/day	700 µg/day	770 µg/day	1300 µg/day
51 - 70 Yrs.	900 µg/day	700 µg/day		
70 +	900 µg/day	700 µg/day		

Source: <https://www.ncbi.nlm.nih.gov/books/NBK56068/table/summarytables.t2/?report=objectonly>

Food Sources of Vitamin A

The table below displays a non-exhaustive list of food sources of vitamin A.

Table of Selected Foods High in Vitamin A		
Food Descriptions	Amounts of Vitamin A per Serving	Percentage of Daily Value
Beef liver, pan-fried, 3 ounces	6,582 mcg	731
Sweet potato, baked in skin, one whole	1,403 mcg	156
Spinach, frozen, boiled, ½ cup	573 mcg	64
Pumpkin pie, commercially prepared, one-piece	488 mcg	54
Carrots, raw, ½ cup	459 mcg	51
Ice cream, French vanilla, soft serve, 1 cup	278 mcg	31
Cheese, ricotta, part-skim, 1 cup	263 mcg	29
Herring, Atlantic, pickled, 3 ounces	219 mcg	24
Milk, fat-free or skim, with added vitamin A and vitamin D, 1 cup	149 mcg	17
Cantaloupe, raw, ½ cup	135 mcg	15
Peppers, sweet, red, raw, ½ cup	117 mcg	13
Mangos, raw, one whole	112 mcg	12
Breakfast cereals, fortified with 10% of the DV for vitamin A, one serving	90 mcg	10
Black-eyed peas (cowpeas), boiled, 1 cup	66 mcg	7
Apricots, dried, sulfured, ten halves	63 mcg	7
Broccoli, boiled, ½ cup	60 mcg	7

Source: <https://ods.od.nih.gov/factsheets/VitaminA-HealthProfessional/>

MY RECOMMENDATION OF VITAMIN A FOOD SOURCES

The list below is my selection of ten food items that are good sources of vitamin A.

Spinach



Origins & History.

- Origin: Persia (known as Iran now)
- Principal Place(s) of Production: China, United States, Japan

Health Benefits of Spinach

Eating spinach may help

- Improve the health of your eyes
- Prevent certain cancers
- Fight high blood pressure

Nutrition Facts of Spinach

One cup of spinach provides

- Calorie: 6.9
- Protein: 0.86 grams
- Carbohydrate: 1.1 grams
- Calcium: 20.7 milligrams
- Iron: 0.8 milligrams
- Magnesium: 23.7 milligrams
- Phosphorus: 14,7 milligrams
- Vitamin C: 8.43 milligrams
- Vitamin A: 141 micrograms.

Red Peppers



Origins & History.

- Peppers originated from South and Central America.
- They made their apparition in Europe around the 16th century.
- Central Place(s) of Production: China, Indonesia, and Mexico.
- They are also known as sweet peppers.

Health Benefits of Red Peppers

Red Bell Peppers are low in calories, rich in vitamins C, A and E, as well as calcium, and folate.

Nutrition Facts of Red Peppers

One sliced cup of red peppers provides:

- Calories: 23.9
- Protein: 0.9 grams
- Carbohydrates: 5.6 grams
- Dietary fiber: 1.9 grams
- Calcium: 6.44 milligrams
- Magnesium: 11 milligrams
- Vitamin C: 117 milligrams
- Folate: 42 micrograms

- Vitamin A: 144 micrograms or 2880 IU

Beef Liver

Health Benefits of Beef Liver

While beef liver has stopped being one of the favorite foods for many people, we must admit that beef liver is one of the nutritional powerhouse foods that offer many health benefits. Beef liver provides many nutrients that we need for our immune systems like B12 vitamin, vitamin A, folate, iron, and high-quality protein.

Nutrition Facts of Beef Liver

4 ounces of raw beef liver provides:

- Calories: 153
- Protein: 23 grams
- Folate: 328 micrograms
- Vitamin A: 5610 micrograms
- B12 Vitamin: 67 micrograms
- Selenium: 44.9 micrograms
- Zinc: 4.52 milligrams

Carrots



Origins & History.

- Carrot originated in Afghanistan
- Principal Place(s) of Production: United States, China, and Russia

Health Benefits of Carrots

Carrots are not only tasty, but also, one of the best sources of beta-carotene – which is a precursor of vitamin A. They are rich in vitamin B1, B2, fiber, and potassium.

Nutrition Facts of Carrots

One cup of carrots provides:

- Calorie: 52.5
- Carbohydrate: 12.3 grams
- Dietary fiber: 3.58 grams
- Vitamin A: 1070 micrograms
- Calcium: 42.2 grams
- Magnesium: 15.4 grams
- Potassium: 410 milligrams
- Folate: 24 micrograms

Fat-free or Skim Milk with Added Vitamin A & D

Origins & History.

Milk has its origin in the Middle East.

- Principal Place(s) of Production: United States, China, and India.

Health Benefits of Milk

Milk is rich in casein, albumin, and globulin. The latter is a type of protein that helps strengthen the body's immune system. Also, milk is an excellent source of many nutrients like vitamins B12, vitamin A, vitamin D, and calcium.

Nutrition Facts of Milk

One cup of milk, nonfat, fluid, with added vitamin A and vitamin D provides:

- Calorie: 83.3
- Protein: 8.26 grams
- Carbohydrates: 12.2 grams
- Calcium: 299 milligrams
- Potassium: 382 milligrams
- Selenium: 7.6 micrograms

Fortified Breakfast Cereals

Origins & History.

Adding nutrients to foods has evolved over the past couple of years. Codex Alimentarius defines "fortification or enrichment" as "the addition of one or more essential nutrients to a food, whether or not it is normally contained in the food, to prevent or correct a demonstrated deficiency of one or more nutrients in the population or specific population groups^{18, 19}."

The practice of fortifying foods became popular during the two World Wars.

Health Benefits of Fortified Breakfast Cereal

Fortified breakfast cereals usually contain added vitamins A, C, D, E, B12, calcium, iron, zinc, folic acids, and many more.

Keep in mind that not all fortified breakfast cereals contain the nutritious ingredients that we need. Many of them may have a large amount of added sugar, refined carbohydrates, misleading claims on labels. I advise that you read the labels before purchasing any fortified breakfast cereal.

Vitamin E

Vitamin E is another one of the fat-soluble (diluted in fat/not water) vitamins whose properties can help strengthen the immune system and fight off viruses. Herbert McLean Evans and K. S. Bishop discovered Vitamin E in 1922. During the first couple of decades following its discovery, the focus was mainly on the reproductive attribute of the vitamin, not paying much attention to the vitamin's role as an antioxidant. Taking more than 800 IU of vitamin E may lead to bleeding, while its deficiency may result in anemia, muscle loss, nerve damage, and weakness.



Functions of Vitamin E

Vitamin E plays many vital functions in the body:

- Vitamin E behaves as an antioxidant. It protects the cells from the damaging effects of free radicals.
- It boosts the body's immune system, enabling us to fight off viruses like COVID-19.
- Vitamin E helps widen our blood vessels, a function that reduces blood from clotting.
- It plays a significant role in the formation of red blood cells.
- It supports other cells in their functions.

Vitamin E and the Immune System

What does vitamin E have to do with the immune system? Studies show that the effects of vitamin E help improve age-associated T cells, NK cells, dendritic cells, and antibody responses²⁰ .

How Much Vitamin E Do I Need?

The National Academy of Sciences Food and Nutrition Board publishes the Dietary Reference Intake (DRI) for vitamin E. See reference at the end of the table.

Note: As you review the table, keep in mind that your daily nutrient requirements might need to be adjusted based on your situation. Talk to your Medical Doctor or Registered Dietitian regarding your daily nutrients needs .

Daily Requirements of Vitamin E by Age Group

Age Groups	Daily Requirements
0 to 6 Months	4 mg/day
7 to 12 Months	5 mg/day
1 to 3 Years	6 mg/day
4 to 8 Years	7 mg/day
9 to 13 Years	11 mg/day
14 and older adults (Including Pregnant Women)	15 mg/day
If You are Breastfeeding	19 mg/day

Source: <https://www.ncbi.nlm.nih.gov/books/NBK56068/table/summarytables.t2/?report=objectonly>

Food Sources of Vitamin E

The table below displays a non-exhaustive list of food sources of vitamin E.

Table of Selected Foods High in Vitamin E		
Food Descriptions	Amounts of Vitamin E per Serving	Percentage Daily Value
Wheat germ oil, one tablespoon	20.8 mg	185
Sunflower seeds, dry roasted, 1 ounce	7.4 mg	49
Almonds, dry roasted, 1 ounce	6.8 mg	45
Sunflower oil, one tablespoon	5.6 mg	37
Safflower oil, one tablespoon	4.6 mg	31
Hazelnuts, dry roasted, 1 ounce	4.8 mg	29
Peanut butter, two tablespoons	2.9 mg	19
Peanuts, dry roasted, 1 ounce	2.2 mg	15
Corn oil, 1 tablespoon	1.9 mg	18
Spinach, boiled, ½ cup	1.9 mg	18
Broccoli, chopped, boiled, ½ cup	1.2 mg	8
Soybean oil, one tablespoon	1.1 mg	7
Kiwifruit, one medium	1.1 mg	7
Mango, sliced, ½ cup	0.7 mg	5

Source: <https://ods.od.nih.gov/factsheets/VitaminE-HealthProfessional/>

MY RECOMMENDATION OF VITAMIN E FOOD SOURCES

The list below is my selection of foods that contain vitamin E.

Wheat Germ

Origins & History.

Wheat germ is the central part of a seed that helps plants grow. It can be traced back to its ancestor einkorn, which is the oldest wheat grain known to humankind. Wheat originated in Western Asia and is mainly produced in Russia, India, and China.

Health Benefits of Wheat Germ

Wheat germ contains a significant amount of nutrients like protein, vitamins, and minerals. That is, wheat germ can boost your daily need for fiber, folate, zinc, vitamin E, vitamin B6, omega-3, and omega-6 fatty acids.

If you have celiac disease or wheat allergy, consider taking wheat germ out of your diet.

Nutrition Facts of Wheat Germ

3.57 ounces or 100 grams of plain wheat germs provide:

- Calories: 382
- Protein: 29.1 grams
- Total Fat: 10.7 grams
- Carbohydrates: 49.1 grams
- Dietary Fiber: 15.1 grams
- Calcium: 45 milligrams
- Iron: 9.9 milligrams
- Magnesium: 320 milligrams
- Phosphorous: 1146 milligrams
- Potassium: 947 milligrams
- Zinc: 16.67 milligrams
- Selenium: 65 micrograms

- Folate: 352 micrograms
- Vitamin E: 15.99 milligrams

Almonds

See Pages 47 – 48

Peanuts, Roasted, Unsalted

Origins & History.

- Peanuts originated in South America several thousand years ago.
- Principal Place(s) of Production: India, China, and Nigeria.

Health Benefits of Peanuts

Like beans and lentils, peanuts belong in the legume family. Peanuts contain high-quality protein, iron, and vitamin E. Also, most of the fat content of peanut is in the form of mono-and polyunsaturated fatty acids.

Nutrition Facts of Peanuts

One ounce (28 grams) of peanuts

- Calories: 170
- Protein: 7.95 grams
- Total Fat: 14.9 grams
- Carbohydrate: 4.3 grams
- Calcium: 17.3 milligrams
- Dietary Fiber: 2.7 grams
- Magnesium: 49.9 milligrams
- Vitamin E: 1.96 milligrams

Sunflower Seeds, Dry Roasted



Origins & History.

- Sunflower seeds originated in North America.
- Principal Place(s) of Production: Russian and Argentina.

Health Benefits of Sunflower Seeds

Sunflower seeds are well-known around the world for many of its health benefits. They are high in protein, healthy fatty acids, calcium, iron, zinc, vitamin A, and, more specifically, vitamin E.

Nutrition Facts of Sunflower Seeds

3.57 ounces (100 grams) of sunflower seeds contain:

- Calories: 582
- Protein: 19 grams
- Total Fat: 49.8 grams
- Carbohydrate: 24.1 grams
- Dietary Fiber: 11 grams
- Calcium: 70 milligrams
- Iron: 3.8 milligrams
- Phosphorus: 1160 milligrams
- Potassium: 850 milligrams
- Zinc: 5.3 milligrams

- Selenium: 79 micrograms
- Folate: 237 micrograms
- Vitamin E: 26.1 milligrams.

Hazelnuts, dry roasted



Origins & History.

- Hazelnuts originated in Western Asia and Europe.
- Principal Place(s) of Production: Italy, Spain, and Turkey

Health Benefits of Hazelnuts

Hazelnuts contribute significantly to our health. First, they are nutrient-dense – that is rich in nutrients and low in calories. They are high in protein, healthy fats, dietary fiber, vitamin E, calcium, folate, phosphorus, potassium, magnesium, and manganese. Second, hazelnuts contain a high level of antioxidants, and they may help reduce the risk of certain chronic diseases like heart diseases, cancer, inflammation, and diabetes.

Nutrition Facts of Dry Roasted Hazelnuts

One ounce or 28 grams of dry roasted hazelnuts provides:

- Calories: 183
- Fats: 17.7 grams
- Protein: 4.26 grams
- Carbohydrates: 5 grams
- Dietary Fiber: 2.7 grams
- Calcium: 34.9 milligrams
- Magnesium: 49 milligrams
- Phosphorus: 88 milligrams

- Potassium: 214 milligrams
- Vitamin E: 4.33 milligrams
- Folate: 24.9 micrograms

Avocado



Origins & History.

- Avocado got its name from the Nahuatl language. It originated in Central America, and it is produced mainly in Mexico, Peru, and the Dominican Republic.

Health Benefits of Avocado

Avocado is rich in healthy fats, vitamins E, A, and B. This nutritious food is well-known for its antioxidant content – Which may help prevent many chronic diseases like cancer, arthritis, and heart disease.

Nutrition Facts Avocado

A 3.57 ounces or 100 grams avocado provides:

- Calories: 160
- Fat: 14.7 grams
- Protein: 2 grams
- Carbohydrates: 8.5 grams
- Dietary Fiber: 6.7 grams
- Calcium: 12 grams
- Potassium: 485 milligrams
- Vitamin C: 10 milligrams
- Folate: 81 micrograms

- Vitamin A: 7 micrograms
- Beta Carotene: 62 micrograms
- Vitamin E: 2 milligrams
- Vitamin K: 21 micrograms

Mangoes

Origins & History.

Mangoes are nutritious and flavorful. They originated in South Asia. They are produced mainly in China, Thailand, and India.

Health Benefits of Mangoes

Mangoes are rich in vitamins C, A, E, potassium, iron, and bioflavonoids. Also, mangoes may help fight certain forms of cancer through its antioxidant properties, control blood cholesterol, and strengthen the immune system.

Nutrition Facts of 7.4 ounces of mango

A 207 grams or 7.4 ounces mango provide:

- Calories: 124
- Protein: 1.7 grams
- Fat: 0.79 grams
- Carbohydrates: 31 grams
- Dietary Fiber: 3.3 grams
- Calcium: 22.8 milligrams
- Magnesium: 20.7 milligrams
- Phosphorus: 29 milligrams
- Potassium: 348 milligrams
- Vitamin C: 75 milligrams
- Folate: 89 micrograms
- Vitamin A: 112 micrograms
- Vitamin E: 1.8 micrograms

Vitamin C

Vitamin C or Ascorbic Acid is an essential water-soluble vitamin. It is naturally present in many foods that we eat. Before its isolation in 1933 by Dr. Albert Szent-Györgyi, vitamin C has mostly been used to treat a condition named scurvy. Experts commonly agreed that vitamin C helps improve the immune system, resist infection, remove toxins from our bodies, and prevent age-related diseases. Besides, multiple studies have concluded that vitamin C can help reduce the risk of certain cancers. Having more than 1 gram per day may lead to nausea, cramps, and diarrhea, whereas its deficiency may slow the ability of our bodies to recover from infection.



Functions of Vitamin C

Vitamin C plays multiple significant functions in our bodies. It helps with:

- Body growth and tissue repair.
- Formation of collagen.
- Wound healing.
- Iron absorption.
- Elimination of free radicals within our bodies.
- The improvement of the immune system.

Vitamin C and the Immune System

Vitamin C supports the innate and adaptive immune system in its functions²¹ .

Epithelial barriers

The skin plays a significant role in keeping external culprits out of our bodies. Vitamin C supports this function of the skin by enhancing collagen synthesis, protecting our cells against damage caused by free radicals, reducing wound healing time.

Phagocytes

These white blood cells help the immune system by overtaking bacteria, foreign molecules. Vitamin C supports the phagocytes in this role by acting as an antioxidant, boosting microbial killing, and facilitating the removal of specific cells.

B- and T-lymphocytes

We previously discussed the roles of B-and T-lymphocytes in fighting viruses and other foreign cells off your body. Vitamin C enhances the production of antibodies in the body.

How Much Vitamin C Do I Need?

Note: As you review the table, keep in mind that your daily nutrient requirements might need to be adjusted based on your situation. Talk to your Medical Doctor or Registered Dietitian regarding your daily nutrients needs .



Daily Requirements of Vitamin C by Age Group

Age Groups	Male	Female
0 to 6 Months	40 mg/day	40 mg/day
7 to 12 Months	50 mg/day	50 mg/day
1 to 3 Years	15 mg/day	15 mg/day
4 to 8 Years	25 mg/day	25 mg/day
9 to 13 Years	45 mg/day	45 mg/day
14 to 18 Years	75 mg/day	65 mg/day 80 mg if Pregnant 115 mg for lactation
19 years and older	90 mg/day	75 mg/day 85 mg/day if Pregnant 120 mg/day for lactation

People who smoke need to add 35 mg/day to the daily requirement above

Source: <https://ods.od.nih.gov/factsheets/VitaminC-HealthProfessional/>



Food Sources of Vitamin C

The table below displays a non-exhaustive list of food sources of vitamin C.



Table of Selected Foods High in Vitamin C

Food Descriptions	Amounts of Vitamin C per Serving	Percentage of Daily Value
Red pepper, sweet, raw, ½ cup	95 mg	106%
Orange juice, ¾ cup	93 mg	103%
Orange, one medium	70 mg	78%
Grapefruit juice, ¾ cup	70 mg	78%
Kiwifruit, one medium	64 mg	71%
Green pepper, sweet, raw, ½ cup	60 mg	67%
Broccoli, cooked, ½ cup	51 mg	57%
Strawberries, fresh, sliced, ½ cup	49 mg	54%
Brussels sprouts, cooked, ½ cup	48 mg	53%
Grapefruit, ½ medium	39 mg	43%
Broccoli, raw, ½ cup	39 mg	43%
Tomato juice, ¾ cup	33 mg	37%
Cantaloupe, ½ cup	29 mg	32%
Cabbage, cooked, ½ cup	28 mg	31%
Cauliflower, raw, ½ cup	26 mg	29%
Potato, baked, one medium	17 mg	19%
Tomato, raw, one medium	17 mg	19%

Source: <https://ods.od.nih.gov/factsheets/VitaminC-HealthProfessional/>

MY RECOMMENDATION OF VITAMIN C FOOD SOURCES

Red Pepper, Sweet, Raw

- See Page 75 for Reference
- ½ cup red pepper, sweet, raw provides 95 mg of vitamin C – which is 106% of your daily requirement.

Orange, Fresh

Origins & History.

- Orange originated in China several thousand years ago.
- Principal Place(s) of Production: China, Mexico, United States, Brazil, and India.

Health Benefits of Oranges

Orange is well-known for its high level of vitamin C content. Orange fruit also is high in vitamin A, calcium, folic acid, potassium, and phosphorus. The acidic fruit can help lower cholesterol, improve digestive health, fight colds, and have significant anti-inflammatory effects.

Nutrition Facts of Oranges

One medium orange (131 g) provides:

- Calorie: 61.6
- Protein: 1.2 grams
- Carbohydrate: 15.4 grams
- Dietary Fiber: 3.14 grams
- Calcium: 52.4 milligrams
- Magnesium: 13 milligrams
- Phosphorus: 18 milligrams
- Potassium: 237 milligrams
- Vitamin C: 69.7 milligrams

- Folate: 39.3 micrograms
- Vitamin A: 14.4 micrograms

Kiwifruit, Fresh



Origins & History.

- Kiwifruit originated in Central & Eastern China sometime around the 12th century.
- Principal Place(s) of Production: China, Italy, California, and New Zealand.

Health Benefits of Kiwi

Kiwi is flavorful and healthful. The fruit is rich with nutrients like vitamins C, E, K, potassium, and folate. If you are looking for a good source of antioxidants and fiber, kiwifruit is your choice. Besides, many studies have shown that eating kiwi may help fight asthma, improve digestion, boost the immune system, and manage blood pressure.

Nutrition Facts of Kiwifruit

One (69 g) raw kiwifruit provides:

- Calories: 42
- Total Fat: 0.4 grams
- Protein: 0.8 grams
- Carbohydrate: 10.1 grams
- Dietary Fiber: 2 grams

- Calcium: 23.5 milligrams
- Magnesium: 11.7 milligrams
- Phosphorus: 23.5 milligrams
- Potassium: 215 milligrams
- Vitamin C: 64 milligrams
- Folate: 17.2 micrograms

Green Bell Pepper, Sweet, Raw

Origins & History.

- Bell Pepper originated in Central America
- Major Place(s) of Production: Mexico, China, and Indonesia.

Health Benefits of Green Bell Pepper

Peppers are considered a powerhouse of health benefits. They are a significant source of antioxidants, vitamins, and minerals like vitamins C, E, K, B6, folate, and potassium. Also, peppers may help improve eyes health, prevent anemia, and strengthen the immune system.

While most people can eat bell peppers without a problem, some individuals may experience allergic reactions when eating them. If you are allergic to bell peppers, avoidance is your best treatment.

Nutrition Facts of Green, Raw Peppers

One cup sliced (92 grams) of green, raw peppers provides:

- Calories: 18.4
- Total Fat: 0.16 grams
- Protein: 0.8 grams
- Carbohydrate: 4.3 grams
- Dietary Fiber: 1.6 grams
- Calcium: 9.2 milligrams
- Magnesium: 9.2 milligrams
- Phosphorus: 18.4 milligrams
- Potassium: 161 milligrams
- Vitamin C: 74 milligrams
- Folate: 9.2 micrograms
- Vitamin A: 17 micrograms
- Carotene Beta: 192 micrograms
- Carotene Alpha: 19.3 micrograms

Strawberries, Fresh



Origins & History

- The history of wild strawberries goes back to the stone age. The fruit originated in Central Europe.
- Principal Place(s) of Production: Turkey, the United States, and Mexico.

Health Benefits of Strawberries

If you are looking for a great way to boost your vitamin C, strawberry fruit is a good pick with 60 milligrams of vitamin C for 100 milligrams of the fruit. Besides, strawberries can help people fight hypertension, heart diseases, decrease the risk of certain cancers, manage blood cholesterol, and improve the immune system and iron absorption.

Nutrition Facts of Strawberries

One cup (144 g) of whole strawberries provides:

- Calorie: 46
- Total Fat: 0.4 grams
- Protein: 0.97 grams
- Carbohydrate: 11.1 grams
- Dietary Fiber: 2.9 grams

- Calcium: 23 milligrams
- Potassium: 220 milligrams
- Vitamin C: 84.7 milligrams
- Folate: 34.6 micrograms
- Lutein & zeaxanthin: 37.4 micrograms
- Vitamin K: 3.2 milligrams

Broccoli, Cooked

Origins & History.

- Broccoli, also known as brassica oleracea Italica originated in the Eastern Mediterranean and Asia Minor.
- Principal Place(s) of Production: China, India, and the United States.

Health Benefits of Broccoli

As one of the dark green vegetables, broccoli contains many nutrients like vitamin C, vitamin K, Folate, and vitamin A. On top of its vitamin and mineral contents, broccoli is rich in antioxidants. It may help reduce inflammation, fight some forms of cancers, manage blood sugar, and boost the immune system.

Nutrition Facts of Broccoli

3.57 ounces or 100 grams of cooked broccoli without salt provides:

- Calorie: 35
- Total Fat: 0.41 grams
- Protein: 2.4 grams
- Carbohydrate: 7.2 grams
- Dietary Fiber: 3.3 grams
- Calcium: 40 milligrams
- Magnesium: 21 milligrams
- Phosphorus: 67 milligrams
- Potassium: 293 milligrams
- Vitamin C: 65 milligrams
- Folate: 108 micrograms
- Vitamin A: 77 micrograms

Vitamin B6

B6 vitamin is our second choice of the water vitamin group. It is one of the essential vitamins that we must get either from food or supplementation. B6 or Pyridoxine was discovered in 1934 by Paul György. At the time, Dr. György identified the substance as a treatment for the skin disorder known as dermatitis acrodynia. B6 vitamin is involved in the metabolic processes of protein, carbohydrate, and fat in the body. Having too much B6 vitamin may cause pain in the bones and loss of balance, whereas a deficiency of the vitamin may lead to depression, dermatitis, anemia, and kidney stones.



Functions of B6 Vitamin

Vitamin B6 plays several significant functions in the body. It helps the body process and utilizes amino acids, breakdown glucose, and fatty acids, form red blood cells, and support the immune system.

Vitamin B6 and the Immune System

Vitamin B6 helps the body make antibodies – which the immune system uses to fight diseases, viruses, and other foreign culprits. Studies have shown that not having enough vitamin B6 may negatively impact both the humoral and cell-mediated immune responses²².

How Much B6 Vitamin Do I Need?

Note: As you review the table, keep in mind that your daily nutrient requirements might need to be adjusted based on your situation. Talk to your Medical Doctor or Registered Dietitian regarding your daily nutrients needs .

Daily Requirements of Vitamin B6 by Age Group				
Age Groups	Male	Female	Pregnant Women	Lactation
0 to 6 Months	0.1 mg/day	0.1 mg/day		
7 to 12 Months	0.3 mg/day	0.3 mg/day		
1 to 3 Years	0.5 mg/day	0.5 mg/day		
4 to 8 Years	0.6 mg/day	0.6 mg/day		
9 to 13 Years	1 mg/day	1 mg/day		
14 to 18 Years	1.3 mg/day	1.2 mg/day	1.9 mg/day	2.0 mg/day
19 to 50 Years	1.3 mg/day	1.3 mg/day	1.9 mg/day	2.0 mg/day
51 and Older	1.7 mg/day	1.5 mg/day		

Source: <https://ods.od.nih.gov/factsheets/VitaminB6-HealthProfessional/>

Food Sources of B6 Vitamin

The table below displays a non-exhaustive list of food sources of B6 vitamin.

Table of Selected Foods High in Vitamin B6		
Food Descriptions	Amounts of Vitamin B6 per Serving	Percentage of Daily Value
Chickpeas, canned, 1 cup	1.1 mg	65%
Beef liver, pan-fried, 3 ounces	0.9 mg	53%
Tuna, yellowfin, fresh, cooked, 3 ounces	0.9 mg	53%
Salmon, sockeye, cooked, 3 ounces	0.6 mg	35%
Chicken breast, roasted, 3 ounces	0.5 mg	29%
Breakfast cereals, fortified with 25% of the DV for vitamin B6	0.4 mg	25%
Potatoes, boiled, 1 cup	0.4 mg	25%
Turkey, meat only, roasted, 3 ounces	0.4 mg	25%
Banana, one medium	0.4 mg	25%
Marinara (spaghetti) sauce, ready to serve, 1 cup	0.4 mg	25%
Ground beef, patty, 85% lean, broiled, 3 ounces	0.3 mg	18%
Waffles, plain, ready to heat, toasted, one waffle	0.3 mg	18%
Bulgur, cooked, 1 cup	0.2 mg	12%
Cottage cheese, 1% low-fat, 1 cup	0.2 mg	12%
Squash, winter, baked, ½ cup	0.2 mg	12%

Source <https://ods.od.nih.gov/factsheets/VitaminB6-HealthProfessional/>

MY RECOMMENDATION OF B6 FOOD SOURCES

Bananas



Origins & History.

- Bananas originated in Southeast Asia.
- Central Place(s) of Production: China, the Philippines, and India.

Health Benefits of Bananas

Bananas are delicious and packed with great health benefits. They contain the right amount of fiber, antioxidants, B6 vitamin, vitamin C, and manganese. Also, bananas can help improve digestion and improve heart health and support the immune system.

Nutrition Facts for 1 Medium Banana

One medium banana (118 grams) provides:

- Calorie: 105
- Total Fat: 0.4 gram
- Protein: 1.3 grams

- Carbohydrate: 27 grams
- Dietary Fiber: 3.07 grams
- Calcium: 5.9 milligrams
- Phosphorus: 26 milligrams
- Potassium: 422 milligrams
- Vitamin C: 10.3 milligrams
- Vitamin B6: 0.4 milligram
- Folate: 23.6 micrograms

Lean Chicken Breast

Origins & History.

The history of using chicken as a food goes back to the Babylonian period around 600 BC. Since World War II, the consumption of chicken has increased tremendously in the United States.

Health Benefits Lean Chicken Breast

Lean chicken breast contains a small amount of saturated fat, high-quality protein, selenium, B6 and B3 vitamins, phosphorus, potassium, and vitamin A.

Nutrition Facts of Lean Chicken Breast

4 ounces or 113 grams of the skinless Chicken breast provides:

- Calorie: 136
- Total Fat: 2.96 grams
- Protein: 25.4 grams
- Carbohydrate: 0 gram
- Dietary Fiber: 0 gram
- Calcium: 5.65 milligrams
- Magnesium: 31.6 milligrams
- Phosphorus: 241 milligrams
- Potassium: 377 milligrams
- Selenium: 25.8 micrograms
- Niacin: 10.8 milligrams
- Folate: 10.2 micrograms
- Vitamin B6: 0.92 milligram

Chickpeas

Origins & History.

- Chickpeas, also known as garbanzo bean, has its origin in Western Asia several thousand years ago.
- Principal Place(s) of Production: Pakistan, Australia, Turkey, and India.

Health Benefits of Chickpeas

Chickpeas are rich in protein, dietary fiber, potassium, B vitamins, selenium, iron, and many more. Brief, chickpeas can play a significant role in the prevention or management of diabetes, high blood pressure, heart disease, and high blood cholesterol.

Nutrition Facts in Chickpeas

1/2 cup or 100 grams of chickpeas, mature seeds, raw, provides:

- Calorie: 378
- Protein: 20.5 grams
- Total Fat: 6 grams
- Carbohydrate: 63 grams
- Dietary Fiber: 12.2 grams
- Calcium: 57 milligrams
- Iron: 4.3 milligrams
- Phosphorus: 252 milligrams
- Potassium: 718 milligrams
- Zinc: 2.76 milligrams
- B6 Vitamin: 0.5 milligrams
- Folate: 557 micrograms

B12 Vitamin

B12 vitamin or Cobalamin was isolated by Karl Folkers and Alexander Todd in 1948, leading the way to preventing pernicious anemia. Cobalamin is a crucial contributor in the functioning of the body's cells and plays a significant role in the immune and nerve function, as well as the development of the red blood cells. Keep in mind that B12 vitamin is an essential vitamin – Your body cannot produce it. A deficiency of vitamin B12 may lead to neurological disorders, pernicious anemia, and fatigue.



Functions of Vitamin B12

- B12 vitamin helps in the development and formation of red blood cells.
- It supports DNA synthesis.
- B12 vitamin plays an essential role in protein metabolism within the body.
- It helps maintain the normal functioning of the central nervous system.

Vitamin B12 and the Immune System

B12 vitamin plays a significant role in supporting the immune system through its actions on lymphocytes and natural killer (NK) cells – Both crucial for proper immune responses against viruses, bacteria, and fungi.

How Much B12 Vitamin Do I Need?

Note: As you review the table, keep in mind that your daily nutrient requirements might need to be adjusted based on your situation. Talk to your Medical Doctor or Registered Dietitian regarding your daily nutrients needs .

Daily Requirements of Vitamin B12 by Age Group				
Age Groups	Male	Female	Pregnant Women	Lactation
0 to 6 Months	0.4 mcg	0.4 mcg		
7 to 12 Months	0.5 mcg	0.5 mcg		
1 to 3 Years	0.9 mcg	0.9 mcg		
4 to 8 Years	1.2 mcg	1.2 mcg		
9 to 13 Years	1.8 mcg	1.8 mcg		
14 to older	2.4 mcg	2.4 mcg	2.6 mcg	2.8 mcg

Source: <https://ods.od.nih.gov/factsheets/VitaminB12-HealthProfessional/>

Food Sources of Vitamin B12

The table below displays a non-exhaustive list of food sources of vitamin B12.

**Table of Selected Foods High in B12 Vitamin**

Food Descriptions	Amounts of Vitamin B12 per Serving	Percentage of Daily Value
Clams, cooked, 3 ounces	84.1 mcg	3,504
Liver, beef, cooked, 3 ounces	70.7 mcg	2,946
Trout, rainbow, wild, cooked, 3 ounces	5.4 mcg	225
Salmon, sockeye, cooked, 3 ounces	4.8 mcg	200
Trout, rainbow, farmed, cooked, 3 ounces	3.5 mcg	146
Tuna fish, light, canned in water, 3 ounces	2.5 mcg	104
Nutritional yeasts, fortified with 100% of the DV for vitamin B12, one serving	2.4 mcg	100
Cheeseburger, double patty, and bun, one sandwich	2.1 mcg	88
Haddock, cooked, 3 ounces	1.8 mcg	75
Beef, top sirloin, broiled, 3 ounces	1.4 mcg	58
Milk, low-fat, 1 cup	1.2 mcg	50
Yogurt, fruit, low-fat, 8 ounces	1.1 mcg	46
Cheese, Swiss, 1 ounce	0.9 mcg	38
Beef taco, one soft taco	0.9 mcg	38
Breakfast cereals, fortified with 25% of the DV for vitamin B12, one serving	0.6 mcg	25
Ham, cured, roasted, 3 ounces	0.6 mcg	25
Egg, whole, hard-boiled, one large	0.6 mcg	25

Source <https://ods.od.nih.gov/factsheets/VitaminB12-HealthProfessional/>

MY RECOMMENDATIONS FOR B12

VITAMIN FOODS

Beef Liver, Cooked

Three ounces of cooked beef liver provides 70.7 micrograms of B12 or 2,946% of the daily value of the DRI. (See pages 77 – 78 for more information).

Salmon, Cooked

Three ounces of cooked salmon provide 4.8 micrograms of B12 or 200% of the daily value of the DRI. (See pages 61 - 62 for more information).

Tuna Fish, Fresh

Three ounces of cooked fresh tuna fish provide 8.02 micrograms of B12 or 111% of the daily value of the DRI. (See pages 63 - 64 for more information).

Yogurt, Plain, Low Fat

Origins & History.

Interestingly, the method of fermenting milk products was discovered several thousand years ago in Western Asia. Since then, yogurt has been widely used around the world as an excellent source of many essential nutrients.

Health Benefits of Low-Fat Yogurt

Low-fat yogurt is both delicious and nutritious. Yogurt has multiple vital nutrients that the body needs to stay healthy. It is rich in protein, calcium, B12 vitamin, riboflavin, phosphorus, magnesium, and potassium. Also, yogurt may contribute to improving our digestive health, strengthening our immune system, and helping us fight heart disease and Osteoporosis, as well as managing our body weight.

Nutrition Facts of Plain Low-fat Yogurt

6 oz or 170 grams of plain low-fat yogurt provides:

- Calorie: 107
- Total Fat: 2.64 grams
- Protein: 8.9 grams
- Carbohydrate: 12 grams
- Calcium: 311 milligrams
- Zinc: 1.51 milligrams
- Selenium: 5.51 micrograms
- B12 Vitamin: 0.95 micrograms
- Folate: 18.7 micrograms

Folate

Both Folate and B12 vitamin work together to support many critical cellular activities in the body. Dr. Lucy Wills discovered folate during an investigation about the underlying cause of the condition known as macrocytic anemia during pregnancy in 1931. Folic acid would not receive its name until 1941 when it was isolated from spinach²³. Folate deficiency may lead to a decrease in the efficiency of the blood marrow in making new red blood cells, congenital disabilities, irritability, and weakness.



Functions of Folate in the Body

- Folate assists the body in the production of cells.
- It is required for the body to make and repair DNA and RNA.
- Folate helps support tissue growth.

Folate and the Immune System

Folate supports a healthy immune system through the formation of new immune cells. Studies consistently show that a deficiency of folic acid may negatively impact the production of DNA and RNA, the synthesis of protein, and altered the activity of the immune cells.

How Much Folate Do I Need?

Note: As you review the table, keep in mind that your daily nutrient requirements might need to be adjusted based on your situation. Talk to your Medical Doctor or Registered Dietitian regarding your daily nutrients needs .

Daily Requirements of Folate by Age Group				
Age Groups	Male	Female	Pregnant Women	Lactation
0 to 6 Months*	65 mcg DFE*	65 mcg DFE*		
7 to 12 Months*	80 mcg DFE*	80 mcg DFE*		
1 to 3 Years	150 mcg DFE*	150 mcg DFE*		
4 to 8 Years	200 mcg DFE*	200 mcg DFE*		
9 to 13 Years	300 mcg DFE*	300 mcg DFE*		
14 to 18 Years	400 mcg DFE*	400 mcg DFE*	600 mcg DFE*	500 mcg DFE*
19 and Older	400 mcg DFE*	400 mcg DFE*	600 mcg DFE*	500 mcg DFE*
Note*: Adequate Intake • One mcg DFE = 1 mcg food folate • One mcg DFE = 0.6 mcg folic acids from fortified foods or dietary supplements consumed with foods • One mcg DFE = 0.5 mcg folic acid from dietary supplements taken on an empty stomach				

Source: <https://ods.od.nih.gov/factsheets/Folate-HealthProfessional/>

Food Sources of Folate

The table below displays a non-exhaustive list of food sources of folate.

Table of Selected Foods High in Folate		
Food Descriptions	Amounts of Folate per Serving	Percentage of Daily Value
Beef liver, braised, 3 ounces	215 mcg DFE	54
Spinach, boiled, ½ cup	181 mcg DFE	38
Black-eyed peas (cowpeas), boiled, ½ cup	105 mcg DFE	26
Breakfast cereals, fortified with 25% of the DV	100 mcg DFE	25
Rice, white, medium-grain, cooked, ½ cup	90 mcg DFE	22
Asparagus, boiled, four spears	89 mcg DFE	22
Brussels sprouts, frozen, boiled, ½ cup	78 mcg DFE	20
Spaghetti, cooked, enriched, ½ cup	74 mcg DFE	19
Lettuce, romaine, shredded, 1 cup	64 mcg DFE	16
Avocado, raw, sliced, ½ cup	59 mcg DFE	15
Spinach, raw, 1 cup	58 mcg DFE	15
Broccoli, chopped, frozen, cooked, ½ cup	52 mcg DFE	13

Source <https://ods.od.nih.gov/factsheets/Folate-HealthProfessional/>

MY RECOMMENDATION OF FOLATE

FOOD SOURCES

Brussel Sprouts



Origins & History.

- Brussel sprouts possibly originated in the Mediterranean region or Northern Europe.
- Principal Place(s) of Production: Netherlands, Germany, United Kingdom, and California.

Health Benefits of Brussel Sprouts

Brussel sprouts are nutritious and offer multiple health benefits. They are rich in nutrients like fiber, vitamins K, C, and folate. Brussel sprouts contain high levels of antioxidants and may help reduce the risk of cancer, promote digestive health, and manage blood sugar.

Nutrition Facts of Brussels Sprouts

One (1) cup or 79 grams of brussels sprouts provides:

- Calorie: 37.8
- Total Fat: 0.3 gram

- Protein: 2.97 grams
- Carbohydrate: 7.9 grams
- Dietary Fiber: 3.34 grams
- Calcium: 37 milligrams
- Vitamin C: 75 milligrams
- Vitamin K: 156 micrograms
- Potassium: 342 milligrams
- Folate: 53.7 micrograms
- Vitamin A: 33.4 micrograms

Asparagus

Origins & History.

Asparagus has been around for more than 2000 years. It is believed to be originated in the Eastern Mediterranean, Africa, and Egypt. China is the principal producer of asparagus.

Health Benefits of Asparagus

Asparagus is an excellent source of antioxidants, vitamins A, C, K, and folate. Also, it supports good digestive health, fights high blood pressure, and manage body weight.

Nutrition Facts of Asparagus

One (1) cup or 134 grams of asparagus provides:

- Calorie: 26.8
- Total Fat: 0.16 grams
- Protein: 2.95 grams
- Carbohydrate: 5 grams
- Dietary Fiber: 2.8 grams
- Calcium: 32 milligrams
- Iron: 2.87 milligrams
- Potassium: 271 milligrams
- Selenium: 3.08 micrograms
- Vitamin C: 7.5 milligrams
- Folate: 69.7 micrograms
- Vitamin A: 50.9 micrograms

1. Lentils



Origins & History.

- Lentils possibly originated in Central Asia and the Middle East.
- Principal Place(s) of Production: Turkey, India, and Canada

Health Benefits of Lentils

Lentils are highly nutritious as they are rich in protein, fiber, thiamine, B6 vitamin, folate, iron, and zinc. Also, lentils contain high levels of antioxidants and may help fight heart diseases.

Nutrition Facts of Lentils

100 grams of lentils provide:

- Calorie: 352
- Total Fat: 1 gram
- Protein: 24.6 grams
- Carbohydrate: 63.4 grams
- Dietary Fiber: 10.7 grams
- Calcium: 35 milligrams
- Iron: 6.5 milligrams
- Magnesium: 47 milligrams

- Phosphorus: 281 milligrams
- Potassium: 677 milligrams
- Zinc: 3.3 milligrams
- Folate: 479 micrograms

Soybeans

Origins & History.

- Soybeans originated in Asia.
- Principal Place(s) of Production: Brazil, the United States, and Argentina

Health Benefits of Soybeans

Soybeans are an excellent source of protein, calcium, potassium, and folate. Also, soybeans contain large amounts of phytochemicals – which may reduce the risk of certain forms of cancer.

Nutrition Facts of Soybeans

100 grams of soybeans provide:

- Calorie: 147
- Total Fat: 6.8 grams
- Protein: 12.95 grams
- Carbohydrate: 11 grams
- Calcium: 197 milligrams
- Potassium: 620 milligrams
- Selenium: 1.5 micrograms
- Vitamin C: 29 milligrams
- Folate: 165 micrograms

Vitamin D

Vitamin D, also known as the sunshine vitamin, is one of the fat-soluble vitamins. It was discovered around the 1920s. One of the substances of vitamin D, commonly called D3 or cholecalciferol, is formed when cholesterol is exposed directly to the effect of sunlight. The second substance of the vitamin, also called D2 or ergocalciferol, is fabricated in the laboratories. Vitamin D deficiency may result in rickets in children, osteoporosis, and may increase the risk of heart disease, type I diabetes, and inflammatory diseases.



Functions of Vitamin D in the Body

Vitamin D plays an essential role in helping the body absorb calcium, maintain a proper level of calcium and phosphorus within the bloodstream, reduce the risk of developing many chronic diseases like osteoporosis and cancer.

Vitamin D and the Immune System

Vitamin D increases the effects of antibacterial protein and enhances the ability of the immune cells to produce antibodies – which the body uses to fight infectious diseases. Many studies have associated vitamin D deficiency with an increased risk for infections.

How Much Vitamin D Do I Need?

Note: As you review the table, keep in mind that your daily nutrient requirements might need to be adjusted based on your situation. Talk to your Medical Doctor or Registered Dietitian regarding your daily nutrients needs .

Daily Requirements of Vitamin D by Age Group				
Age Groups	Male	Female	Pregnant Women	Lactation
0 to 12 Months*	400 IU (10 mcg)	400 IU (10 mcg)		
1 to 13 Years	600 IU (15 mcg)	600 IU (15 mcg)		
14 to 18 Years	600 IU (15 mcg)	600 IU (15 mcg)	600 IU (15 mcg)	600 IU (15 mcg)
19 to 50 Years	600 IU (15 mcg)	600 IU (15 mcg)	600 IU (15 mcg)	600 IU (15 mcg)
51 to 70 Years	600 IU (15 mcg)	600 IU (15 mcg)		
70 and Older	800 IU (20 mcg)	800 IU (20 mcg)		
Note*: Adequate Intake				
Source: https://ods.od.nih.gov/factsheets/VitaminD-HealthProfessional/				

Food Sources of Vitamin D

The table below displays a non-exhaustive list of food sources of vitamin D. Note that ten micrograms (mcg) of cholecalciferol = 400 IU of vitamin D activity.

Table of Selected Foods High in Vitamin D

Food Descriptions	Amounts of Vitamin D per Serving	Percentage of Daily Value
Cod liver oil, one tablespoon	34.0 mcg (1,360 IU)	170
Trout (rainbow), farmed, cooked, 8 ounces	16.2 mcg (645 IU)	81
Salmon (sockeye), cooked, 8 ounces	14.2 mcg (570 IU)	71
Mushrooms, white, raw, sliced, exposed to UV light, 1/2 cup	9.2 mcg (366 IU)	46
Milk, 2% milkfat, vitamin D fortified, 1 cup	2.9 (120 IU)	15

Source: <https://ods.od.nih.gov/factsheets/VitaminD-HealthProfessional/>

MY RECOMMENDATION OF VITAMIN D FOOD SOURCES

Cod Liver Oil

History reports that people have used cod liver oil for centuries as a treatment against cold. They believed it could help fight rheumatism and stiff muscles. Years later, it has become evident and well-established that cod liver oil is an excellent source of vitamin A, D, and omega-3 fatty acids.

Avoid taking cod liver oil if you are pregnant, have asthma, or taking anticoagulant medications.

One (1) tablespoon of cod liver oil provides 1,360 IU or 170 percent of the daily value for vitamin D.

Sardines

People have been consuming sardines for many years. They are mostly caught in the Mediterranean, Atlantic, and Pacific seas.

Sardines can significantly contribute to our daily nutrient needs as it is rich in protein, omega-3 fatty acids, B12 vitamin, calcium, and vitamin D.

Nutrition Facts of Sardines

3.5 ounces or 100 grams of cooked sardines provides:

- Calorie: 208
- Total Fat: 11.5 grams
- Protein: 24.6 grams
- Carbohydrate: 0 gram
- Calcium: 382 milligrams
- Iron: 2.92 milligrams
- Phosphorus: 490 milligrams
- Potassium: 397 milligrams
- Selenium: 52.7 micrograms
- Vitamin B12: 8.9 micrograms
- Vitamin D: 4.8 micrograms

Salmon

Three (3) ounces of salmon provides 570 IU or 71 percent of the daily value of vitamin D. (See pages 61 - 62 for more information).

Zinc

Zinc is one of the busiest buddies in our cells. It finds itself involved in many essential activities that take place in the body. Zinc activities support the body's genes, DNA, enzymes, immune, protein synthesis, wound healing, heart health, joints, insulin regulation, thymus, and gonads.

Zinc and the Immune System

Zinc plays a crucial role in helping the immune response against viruses, bacteria, and fungi. Reviewing the effects of zinc deficiency may help us understand how it supports the immune system.

A zinc deficiency may lead to a decline of the lymphocytes, the thymic atrophy, inadequate white blood cell responses, and increase the body's susceptibility to viruses and bacteria.

Note that phytates (in cereals), oxalates (in spinach, chocolate, kiwi), and antacid medications may inhibit or decrease the absorption of zinc.

How Much Zinc Do I Need?

Note: As you review the table, keep in mind that your daily nutrient requirements might need to be adjusted based on your situation. Talk to your Medical Doctor or Registered Dietitian regarding your daily nutrients needs .

Daily Requirements of Zinc by Age Group

Age Groups	Male	Female	Pregnant Women	Lactation
0 to 6 Months	2 mg*	2 mg*		
7 to 12 Months	3 mg	3 mg		
1 to 3 Years	3 mg	3 mg		
4 to 8 Years	5 mg	5 mg		
9 to 13 Years	8 mg	8 mg		
14 to 18 Years	11 mg	9 mg	12 mg	13 mg
19 and Older	11 mg	8 mg	11 mg	12 mg
Note*: Adequate Intake				

Source: <https://ods.od.nih.gov/factsheets/Zinc-HealthProfessional/>

Food Sources of Zinc

The table below displays a non-exhaustive list of food sources of zinc.

Table of Selected Foods High in Zinc		
Food Descriptions	Amounts of Vitamin Zinc per Serving	Percentage of Daily Value
Oysters, cooked, breaded and fried, 8 ounces	74.0 mg	678
Beef chuck roast, braised, 8 ounces	7.0 mg	64
Crab, Alaska king, cooked, 8 ounces	6.5 mg	59
Beef patty, broiled, 8 ounces	5.8 mg	48
Lobster, cooked, 8 ounces	8.4 mg	81
Pork chop, loin, cooked, 8 ounces	2.9 mg	26
Baked beans, canned, plain or vegetarian, ½ cup	2.9 mg	26
Breakfast cereal, fortified with 25% of the DV for zinc, one serving	2.8 mg	25
Chicken, dark meat, cooked, 8 ounces	2.4 mg	22
Pumpkin seeds, dried, 1 ounce	2.2 mg	20
Yogurt, fruit, low fat, 8 ounces	1.7 mg	15
Cashews, dry roasted, 1 ounce	1.6 mg	15
Chickpeas, cooked, ½ cup	1.8 mg	12

Source: <https://ods.od.nih.gov/factsheets/Zinc-HealthProfessional/>

MY RECOMMENDATIONS OF ZINC

FOOD SOURCES

Oysters, cooked

Origins & History.

The history of oysters goes back to the prehistoric period. People have cultivated and consumed them for thousands of years in places like Greece, Rome, Australia, Japan, and the United Kingdom. During the 19th century, oysters have gained substantial popularity in New York. Contrary to many other dishes, the consumption of oysters has decreased mainly throughout the years.

Health Benefits of Oysters

Oysters are a powerhouse of nutrients. They are rich in high-quality protein, antioxidants, omega-3 fatty acids, zinc, calcium, vitamin D, B12, iron, and selenium. As a result, oysters may help maintain the nervous system, improve the immune system, and contribute to cell division.

Caution : Avoid eating raw oysters as it may contain bacteria and viruses. Also, keep in mind that an intake of 2.5 mg/day for zinc may lead to nausea, vomiting, weakness, fatigue, and high blood lipids.

Nutrition Facts of Oysters

3.57 ounces or 100 grams of cooked wild eastern oyster provides:

- Calorie: 102
- Total Fat: 3.4 grams
- Protein: 11.4 grams
- Carbohydrate: 5.45 grams
- Calcium: 116 milligrams
- Iron: 9.2 milligrams
- Phosphorus: 194 milligrams
- Potassium: 139 milligrams
- Zinc: 78.6 milligrams
- Selenium: 39.5 milligrams

- Folate: 14 micrograms
- Vitamin B12: 17.5 micrograms

Sesame Seeds



Origins & History

The use and cultivation of sesame seeds go back to the beginning of civilizations. They originated in South Asia and Africa. The major countries of production of sesame seeds are India, China, Mexico, and the United States.

Health Benefits of Sesame Seeds

Sesame seeds offer a wide range of nutrients like protein, fiber, omega-6 fatty acids, zinc, calcium, niacin, vitamins A & E. Studies also agree that they can help fight heart diseases, arthritis, and diabetes.

Nutrition Facts of Sesame Seeds

3.57 ounces or 100 grams of sesame seeds provide:

- Calorie: 567
- Total Fat: 48 grams
- Protein: 17 grams
- Carbohydrate: 26 grams
- Dietary Fiber: 17 grams
- Calcium: 131 milligrams
- Iron: 7.8 milligrams
- Zinc: 10.23 milligrams
- Selenium: 34.4 micrograms

- Folate: 26.9 micrograms

Herring

Origins & History.

- Herring originated in the North Atlantic Ocean
- The largest global market countries are the Netherlands, Sweden, Germany, and Denmark.

Health Benefits of Herring

Herring is both delicious and nutritious. It is low in calorie and rich in protein, DHA and EPA, B12, iron, calcium, phosphorus, potassium, zinc, and selenium. With such a high nutrient profile, herring may

help prevent heart diseases, arthritis, inflammation, and boost your immune system.

Nutrition Facts of Herring

3.57 ounces or 100 grams of baked or broiled herring with no added fat provide:

- Calorie: 199
- Total Fat: 11.4 grams
- Protein: 22.6 grams
- Carbohydrate: 0.1 grams
- Calcium: 72 milligrams
- Iron: 1.4 milligrams
- Magnesium: 40 milligrams
- Phosphorus: 297 milligrams
- Potassium: 413 milligrams
- Zinc: 1.25 milligrams
- Selenium: 46 micrograms
- Folate: 12 micrograms
- Vitamin B12: 14.6 micrograms
- Vitamin A: 30 micrograms

Selenium

Selenium is a relatively new discovered traced mineral. The world did not know about selenium until 1817 when Jöns Jacob Berzelius reported it. When coupled with vitamin E, selenium can help protect the body against free radicals. Also, selenium supports the immune system, reduces the aging process, and prevents auto-immune diseases. Its deficiency may lead to anemia, muscle pain, heart failure, and joint disease. Selenium overdose, however, may cause hair loss, fingernail loss, liver damage, irritability, and weakness.

Functions of Selenium in the Body

As an antioxidant, selenium may help prevent certain forms of cancer, heart diseases, and Alzheimer's disease. It also plays a significant role in keeping your thyroid gland healthy, reduce asthma symptoms, and improve your immune system.

Selenium and the Immune System

Having an adequate daily intake of selenium can positively impact your immune responses. Studies show that selenium deficiencies can lead to reducing the ability of the immune cells to respond appropriately to viruses and bacteria. Also, selenium deficiency has been linked to increased incidence or progression of viral infections like influenza, HIV, and Coxsackie virus²⁴. Inversely, adequate levels of selenium in the body may increase the capacity of the immune system to respond to attacks from pathogenic organisms.

How Much Selenium Do I Need?

Note: As you review the table, keep in mind that your daily nutrient requirements might need to be adjusted based on your situation. Talk to your Medical Doctor or Registered Dietitian regarding your daily nutrients needs .

Daily Requirements of Selenium by Age Group				
Age Groups	Male	Female	Pregnant Women	Lactation
0 to 6 Months	15 mcg*	15 mcg*		
7 to 12 Months	20 mcg*	20 mcg*		
1 to 3 Years	20 mcg	20 mcg		
4 to 8 Years	30 mcg	30 mcg		
9 to 13 Years	40 mcg	40 mcg		
14 to 18 Years	55 mcg	55 mcg	60 mcg	60 mcg
19 to 50 Years	55 mcg	55 mcg	60 mcg	60 mcg
51 and Older	55 mcg	55 mcg		
Note*: Adequate Intake				

Source: <https://ods.od.nih.gov/factsheets/SeleniumHealthProfessional/>

Food Sources of Selenium

The table below displays a non-exhaustive list of food sources of selenium.

 **Table of Selected Foods High in Selenium**

Food Descriptions	Amounts of Selenium per Serving	Percentage of Daily Value
Brazil nuts, 1 ounce (6-8 nuts)	544 mcg	989
Tuna, yellowfin, cooked, dry heat, 3 ounces	92 mcg	167
Halibut, cooked, dry heat, 3 ounces	47 mcg	85
Sardines, canned in oil, drained solids with bone, 3 ounces	45 mcg	82
Ham, roasted, 3 ounces	42 mcg	76
Shrimp, canned, 3 ounces	40 mcg	73
Macaroni, enriched, cooked, 1 cup	37 mcg	67
Beefsteak, bottom round, roasted, 3 ounces	33 mcg	60
Turkey, boneless, roasted, 3 ounces	31 mcg	56
Beef liver, pan-fried, 3 ounces	28 mcg	51
Chicken, light meat, roasted, 3 ounces	22 mcg	40
Cottage cheese, 1% milkfat, 1 cup	20 mcg	36
Rice, brown, long-grain, cooked, 1 cup	19 mcg	35
Beef, ground, 25% fat, broiled, 3 ounces	18 mcg	33
Egg, hard-boiled, one large	15 mcg	27
Bread, whole-wheat, one slice	13 mcg	24
Baked beans, canned, plain or vegetarian, 1 cup	13 mcg	24

Source: <https://ods.od.nih.gov/factsheets/SeleniumHealthProfessional/>

My Selection of Selenium Food Sources

Brazil Nuts

One (1) ounce or 6 to 8 Brazil Nuts provides 544 mcg or 989 percent of the daily value for Selenium. (See pages 51 - 52 for more information).

Tuna, Fresh

Three (3) ounces of Fresh Tuna provides 92 mcg or 167 percent of the daily value for Selenium. (See pages 63 - 64 for more information).

Yogurt, Plain, Low Fat

One (1) cup of yogurt provides 8 mcg or 15 percent of the daily value for Selenium. (See pages 130 - 131 for more information).

CHAPTER TEN

Herbs to Help Boost Your Immune System

People around the world have used herbs as medicine since the beginning of humanity. Researchers have found multiple written documents recording how the ancient world used plants to cure illnesses. For example, in 2,500 BC, Emperor Shen Nung circa wrote the Chinese herbal book.

When used correctly, many herbs may provide a natural alternative to prescription drugs. The World Health Organization reports that “some 80% of the world’s inhabitants rely chiefly on traditional medicine for their primary health care²⁵ .”

What Makes Certain Herbs Effective Remedies Against Illnesses

The nutrient and phytochemical content of some herbs have turned them into powerful remedies against many medical conditions like infectious diseases, hypertension, high cholesterol, high blood sugar, heart disease, and some forms of cancer.

Phytochemicals

Phytochemicals are the components that give plants their color, flavor, preventive, and healing effects against many diseases. Below is a list of a few phytochemicals that you find in many herbal remedies:

- **Acemannan** : An antioxidant that can help fight tumor cells, support the immune system, and promote wound healing.
- **Alpha-Lipoic Acid** : An organic antioxidant that has many great health benefits. It is known to help manage diabetes, fight inflammation, slow the aging process, and improve nerve functions.
- **Anthocyanins** : These pigments give fruits and vegetables the beautiful colors that they have. Anthocyanins help manage diabetes, fight inflammation, and prevent heart disease.

- **Campesterol** : A natural plant compound that may help control blood cholesterol and fight inflammation.
- **Coumarin** : This natural compound can help fight HIV, tumor, hypertension, pain, and asthma.
- **Ferulic Acid** : A phytochemical that can protect the cells against damaging activities of free radicals, prevent and fight cancers, high blood cholesterol, and heart disease.
- **Flavonoids** : Powerful antioxidants that help protect plants against parasites, bacteria, and injuries. They can help prevent and fight heart disease, certain cancers, and neurodegenerative disorders.
- **Gallic Acid** : An antioxidant that protects the cells against oxidative activities, fight cancers, and helps manage diabetes.
- **Glutamic Acid** : An antioxidant that may protect the body against free radicals, manage hypoglycemia, and prevent nerve damage.
- **Oligomeric Proanthocyanidins** : A powerful antioxidant that participates in increasing the effect of vitamin C, protecting the brain and spinal nerves, and supporting the immune system.
- **Silymarin** : This ingredient is mainly found in milk thistle. It is known for its antiviral qualities and may help fight liver cell damage and manage diabetes.
- **Tannins** : The type of tannins content varies from one herbal plant to the other – Each providing specific health benefits.

Tips & Cautions

It is important to note that most herbal remedies might not produce the immediate effects that we often see in prescription medications. Also, be cautious when selecting and using herbs as medicine. Here are some tips to using herbs:

- Always talk to your healthcare professional before taking any herbal remedies.
- Do not attempt to use herbal remedies in case of life-threatening medical situations.
- Before using any type of herbs, inform yourself on the appropriate dosage and length of use.
- Do not buy herbs from companies that you do not know or trust. Research the company before making any purchase.
- Avoid taking herbal remedies if you are pregnant and nursing a baby.
- Avoid giving herbal remedies to your children. Discuss with your child's health care professional.
- If you are using herbal remedies, always use the recommended parts of the herbs. If you are not sure which part of the herbs to use, call the company and ask.
- Due your due diligence before using any herbal remedy.

In the next section of the book, you will find twenty-two (22) herbs that have gained a strong reputation in strengthening the immune system and fighting off viral infections.

We organize this section as follow:

1. The name of the herb.
2. A brief history of the herb.
3. The nutrient content of the herb.
4. The potential medical use of the herb.
5. Tips and Cautions when using the herb.

1. Aloe Vera



A brief history of Aloe Vera

- The oldest clay written document of Aloe Vera is dated as far back as 2,200 BC.
- The ancient Egyptians used aloe vera several thousand years ago.
- Cleopatra and Alexander the Great used it as a nutritious juice, a skincare product, herbal remedy for many illnesses.
- Its antibacterial and antifungal properties led many ancient nations to use it to embalm their dead bodies.

Other Names Used for Aloe around the World

Aloe is also known as Lalwa (in Haiti), Aloe Africana, Uitenhage Aloe, Lú huì, and Vera d'Aloès

Nutrient Content of Aloe Vera

Aloe Vera is packed with a variety of nutrients like beta-carotene, beta-sitosterol, coumarin, acemannan, campesterol, lignins, amino acids, calcium, folate, iron, zinc, vitamins A, C, and E.

Possible Medical Use of Aloe Vera

Aloe Vera is well-known for its antiviral, antibacterial, and antifungal properties. It has been used to treat mouth sores, lower blood cholesterol,

support digestive health, keep skin healthy, and improve the immune system.

Part to Use : The pulp.

Tips & Cautions when Using Aloe Vera

- Beware of allergic reactions from Aloe Vera.
- Avoid using Aloe Vera if you are pregnant or nursing a baby.
- Always speak to your health care provider before taking any herbal remedy.

2. Anise

A Brief History of Anise

- Anise or Pimpinella Anisum originated in Egypt, Greece, and Asia more than 2,000 years ago.
- People in England, Russia, Bulgaria, Germany, Spain, Italy, North Africa, and Greece cultivated anise for hundreds of years.



Other Names Used for Anise around the World

Anise is known under many other names like Huíxiāng zhǒngzǐ, Sementes de Anis, семена аниса, Anisi Fructus, Graine d'Anis Vert, and Huile Essentielle d'Anis.

Nutrient Content of Anise

Anise is rich in the following nutrients: umbelliferone, squalene, myristicin, limonene, caffeic acid, alpha-pinene, apigenin, chlorogenic acid, eugenol, calcium, folate, iron, zinc, vitamins A, C, and E.

Possible Medical Use of Anise

Anise or Pimpinella Anisum is used to fight respiratory infections like sinusitis, support digestive health, and boost the immune defense. It is also used as a flavoring agent in many dishes.

Parts to Use : The seeds or seed oil.

Tips & Cautions when Using Anise

- Anise may cause allergic reactions in some people.
- Avoid taking anise if you have diabetes. Monitor your blood sugar carefully if you decide to use it.
- Do not use anise if you have cancer or ovarian cancer.
- Anise may lower the effectiveness of birth control medications.
- Always talk to your healthcare provider before using any herbal remedy.

3. Astragalus

A Brief History of Astragalus

- Astragalus originated in Asia, where it was used for more than 2,000 years.
- The USDA brought the plant in the United States in 1925.



Other Names Used for Astragalus around the World

Astragalus is also known as Astragale à Feuilles de Réglisse, Astragale Réglissier, Astragali, Astragalo, Beg Kei, Chinese Astragalus, Huang Se, Huangqi, Mongolian Milk, and Réglisse Bâtarde.

Nutrient Content of Astragalus

Astragalus contains Beta-sitosterol, Betaine, Formononetin, Isoliquiritigenin, calcium, iron, potassium, and zinc.

Possible Medical Use of Astragalus

Astragalus is well-known for its content of antioxidants and its multiple health benefits. It is commonly used to protect the immune system, fight upper respiratory infections, heart disease, hepatitis.

Astragalus also supports the digestive system, fights fatigue, stress, colds, and flu.

Part to Use : Root.

Tips & Cautions when Using Astragalus

- Avoid using astragalus if you have a fever.
- Do not take astragalus if you are taking immunosuppressant drugs.
- Do not use this herbal remedy if you are pregnant or nursing a baby.
- Avoid taking a hefty dose of astragalus as it may negatively impact your immune system.
- Always talk to your healthcare provider before taking any herbal remedy.

4. Burdock

A Brief History of Burdock or Arctium Lappa

- Burdock originated in Northern Asia and Europe.
- Many people around the world have used it as an herbal remedy for thousands of years.



Other Names Used for Burdock around the World

Burdock is also known as Arctium Lappa, Bardana, Burr Seed, Great Burdocks, Gobo, Harebur, Herbe du Teigneux, Love Leaves, and Niu Bang Zi.

Nutrient Content of Burdock

Burdock is rich in the following nutrients: acetic acid, arctigenin, arctiin, beta-carotene, butyric acid, caffeic acid, isovaleric acid, lauric acid, propionic acid, sitosterol, stigmasterol, calcium, potassium, selenium, zinc, and vitamin C.

Possible Medical Use of Burdock

Burdock contains high amounts of antioxidants. It possibly helps against cancer, eliminate excess body fluid, and keep the blood clean. It also supports the digestive and the immune systems in their functions.

Parts to Use : Plant, roots, and seeds.

Tips & Cautions when Using Burdock

- Do not use burdock if you are dehydrated, pregnant, or nursing a baby.
- Burdock may inhibit or decrease iron absorption.
- Avoid taking burdock if you have diabetes or heart diseases.
- Burdock may cause allergic reactions.
- Avoid taking burdock with certain medications like anticoagulants.
- Always talk to your healthcare provider before taking any herbal remedy.

5. Chuchuhuasi

A Brief History of Chuchuhuasi

- Chuchuhuasi originated in the Amazon Rainforest and South America.
- The indigenous people widely used chuchuhuasi as medicines to treat pain and digestive disorders.

Other Names Used for Chuchuhuasi around the World

Chuchuhuasi is also known as Chucchu huashu, Chuchasha, Chuchuhuasca, Brazilian Ginseng and Maytenus krukoviti.

Nutrient Content of Chuchuhuasi

Chuchuhuasi contains anthocyanidins, catechin, maytensine, and tannins.

Possible Medical Use of Chuchuhuasi

People commonly use chuchuhuasi to treat inflammation, strengthen the immune system, control menstrual cycles, fight arthritis, rheumatism, bronchitis, and reduce fever.

Parts to Use : Root, bark, and leaves.

Tips & Cautions when Using Aloe Vera

- Avoid taking chuchuhuasi if you are pregnant or nursing a baby.
- Always talk to your health care professional before taking any herbal remedy.

6. Chickweed

A Brief History of Chickweed

- Chickweed originated in Europe.
- It has long been known as a potent and herbal remedy.



Other Names Used for Chickweed around the World

Chickweed is also called *Stellaria media*, Chicken wort, Maruns, and Tongue grass.

Nutrient Content of Chickweed

Chickweed contains beta-carotene, genistein, rutin, calcium, fatty acids, iron, potassium selenium, zinc, vitamins C and E.

Possible Medical Use of Chickweed

Chickweed is commonly used as a treatment for bronchitis, circulatory disorders, skin disorders, coughing, and colds.

Part to Use : Stems and Leaves.

Tips & Cautions when Using Chickweed

- Chickweed might cause allergic reactions in some people.
- Avoid taking a large dose of chickweed.

- Avoid taking chickweed if you are pregnant or nursing a baby.

7. Echinacea

A Brief History of Echinacea Species

- Echinacea is grown mainly in the Rocky Mountains, Canada, and Europe.
- The Indian tribes used echinacea as traditional herbal remedies.



Other Names Used for Echinacea Species around the World

Echinacea is also known as Black Sampson, Black Susans, and American Cone Flower.

Nutrient Content of Echinacea Species

Echinacea is rich in alpha-pinene, arabinogalactan, beta-carotene, beta-sitosterol, borneol, caffeic acid, caryophyllene, chlorogenic acid, cichoric acid, cynarin, ferulic acid, kaempferol, luteolin, rutin, stigmasterol, vanillin, calcium, iron, magnesium, potassium, selenium, zinc, and vitamin C.

Possible Medical Use of Echinacea Species

Echinacea species are used to treat inflammation, boost the immune system, fight bacterial and viral infections, colds, and flu.

Part to Use : Roots and Leaves.

Tips & Cautions when Using Echinacea Species

- Avoid using echinacea species for more than three weeks.
- Echinacea may cause allergic reactions to people who are allergic to ragwood.
- Avoid using echinacea if you are nursing a baby.

8. Elderberry

A Brief History of Elderberry

- The history of Elderberry goes back as far as the Middle Age. During that time, the plant was used for wellbeing and longevity.
- Elderberry is a relative of black elder, which is widely used in Europe, and Northern Africa.



Other Names Used for Elderberry around the World

Elderberry goes under many other names like Boor Tree, Common Elder, Ellanwood, European Black Elder, European Elder, Fruit de Sureau, Hautbois, Sambucus nigra, etc.

Nutrient Content of Elderberry

Elderberry contains alpha-amyrin, beta-carotene, beta-sitosterol, caffeic acid, ferulic acid, oleanolic acid, rutin, calcium, vitamins A, and C.

Possible Medical Use of Elderberry

Elderberry is mainly used as an antioxidant that fights free radicals. It also helps against cough, congestion, constipation, fever, skin issues. Also, it is widely used to strengthen the immune system.

Parts to Use : Roots, Leaves, Inner Bark, Fruit, and Flowers.

Tips & Cautions when Using Elderberry

- Do not Elderberry during pregnancy and nursing.
- Avoid using the stems of this herb.
- Avoid using Elderberry if you suffer from any autoimmune disorder or on immunosuppressant medications.

9. Eucalyptus

A Brief History of Eucalyptus

Eucalyptus, also known as gum tree, is a famous tree around the world. Throughout history, people have used it for multiple purposes like furniture, herbal remedy, paper, and furniture. Eucalyptus originated in Australia thousands of years ago.



Other Names Used for Eucalyptus around the World

Eucalyptus goes under several different names. It is also known as Gum Tree, Blue Mallee, Eucalipto, Eucalyptol, Eucalyptus globulus, Huile d'Eucalyptus, and Stringy Bark Tree.

Nutrient Content of Eucalyptus

Eucalyptus contains the following elements: alpha-pinene, beta-pinene, carvone, ellagic acid, ferulic acid, gallic acid, hyperoside, quercitrin, and rutin.

Possible Medical Use of Eucalyptus

Eucalyptus is commonly used as a decongestant and antiseptic. People also use it to treat the common colds, coughs, mucus, asthma, bronchitis, and nail fungus.

Part to Use : Leaves, Bark, and Essential Oil.

Tips & Cautions when Using Eucalyptus

- Avoid taking undiluted eucalyptus oil by mouth is not safe.
- Do not use undiluted eucalyptus oil directly on your skin.
- Do not give eucalyptus oil to children or use them on their skins.
- Do not use eucalyptus if you are taking diabetic medications.
- Always speak to your healthcare provider before using any herbal remedy.

10. Garlic

A Brief History of Garlic or Allium Sativa

Garlic or Allium Sativa possibly originated in Asia and Siberia. Historically, people from ancient Egypt, India, and Pakistan used it to treat many illnesses.



Other Names Used for Garlic around the World

Garlic is also known as Russian Penicillin, Plant Talisman, Snake Grass, Ail Blanc, Allium sativum, and Allium Sativa.

Nutrient Content of Garlic

Garlic is a powerhouse of many phytochemicals and nutrients such as allicin, beta-carotene, beta-sitosterol, diallyl-disulfide, ferulic acid, linalool, p-coumaric acid, rutin, calcium, folate, iron, phosphorus, selenium, zinc, and vitamin C.

Possible Medical Use of Garlic

People use garlic for a variety of reasons like a cooking ingredient, as well as an herbal remedy to enhance the immune system, improve blood pressure, circulation, and blood lipid numbers. It also helps manage blood sugar levels and fight arteriosclerosis, asthma, arthritis, colds, and flu.

Part to Use : Bulb.

Tips & Cautions when Using Garlic

- Garlic may lead to internal bleeding. Do not use it if you are taking anticoagulant medications.
- Never use raw garlic on your skin.
- Avoid taking garlic if you are on diabetic medications and if you have low blood pressure.
- Avoid taking garlic a couple of weeks before and after surgery.
- Always talk to your healthcare provider before using any herbal remedy.

11. Ginseng

A Brief History of Ginseng

Ginseng originated in China about 5,000 years ago. Since then, people from around the world have used it as both a food ingredient and herbal remedy.



Other Names Used for Ginseng around the World

Ginseng is known under several different names like Anchi Ginseng, Ginseng à Cinq Folioles, Ginseng Americano, Ginseng Rouge, Racine de Vie, Red Berry, Shi Yang Seng, and Panax Coréen.

Nutrient Content of Ginseng

Ginseng is rich in the following ingredients: beta-sitosterol, campesterol, cinnamic acid, ferulic acid, oleanolic acid, panaxic acid, panaxin, vanillic acid, calcium, fiber, folate, iron, zinc, and vitamins B2, B3, and C.

Possible Medical Use of Ginseng

People around the world use ginseng as an herbal remedy to strengthen the immune system, enhance lung functions, treat bronchitis, circulatory disorders, and diabetes.

Part to Use : Roots.

Tips & Cautions when Using Ginseng

- Do not use ginseng if you suffer from high blood pressure.
- Do not use ginseng if you are pregnant or nursing a baby.
- Avoid using ginseng for more than six months.
- Ginseng might lead to insomnia.
- Do not give ginseng to infants and children.
- Always speak to your healthcare provider before using any herbal remedy.

12. Goldenseal

A Brief History of Goldenseal

Goldenseal or *Hydrastis Canadensis* originated in North America, where the Indians used to treat many illnesses.



Other Names Used for Goldenseal around the World

Goldenseal is also known as *Hydrastis Canadensis*, Indian Dye, and Eye Root.

Nutrient Content of Goldenseal

Goldenseal contains many healthful ingredients like berberine, beta-carotene, canadine, calcium, iron, potassium, selenium, zinc, and vitamin C.

Possible Medical Use of Goldenseal

Goldenseal is commonly used to treat infectious and inflammatory diseases. Also, it is well-known for strengthening the immune system, supporting the respiration and digestive systems.

Parts to Use : Roots and Rhizomes.

Tips & Cautions when Using Goldenseal

- Do not use goldenseal for more than one week at a time.
- Avoid using goldenseal if you are pregnant or nursing a baby.

- Do not give this herb to children.
- Always speak to your healthcare provider before using any herbal remedy.

13. Green Tea

A Brief History of Green Tea

The history of green tea goes back more than 5,000 years. It originated between Northern Burma and Southern China. There are more than 20,000 types of camellia around the world.



Other Names Used for Green Tea around the World

Green tea is also known as Camellia Sinensis, Camellia Theifera, Extrait de Camellia Sinensis, Extrait de Thé Vert, Japanese Tea, Té Verde, Thé, and Thé Vert.

Nutrient Content of Green Tea

Green tea is rich in the following nutrients: astragalin, benzaldehyde, beta-carotene, beta-sitosterol, carvacrol, catechins, farnesol, gallic acid, lutein, lycopene, myrcene, polyphenols, caffeine, tannic acid, amino acids, calcium, iron, potassium, zinc, and vitamin C.

Possible Medical Use of Green Tea

People use green tea worldwide as an herbal remedy to manage blood cholesterol, strengthen the immune system, reduce the incidence of blood clotting, and control blood sugar levels. Studies have shown that green tea may help fight certain forms of cancer.

Part to Use : Leaves.

Tips & Cautions when Using Green Tea

- Avoid taking large dose of green tea. Limit your intake to no more than eight (8) cups a day.
- If you are pregnant or nursing a baby, talk to your doctor before using green tea.
- Avoid drinking green tea if you suffer from low blood count, anxiety, diabetes, high blood pressure, IBS, liver disease, heart problems, and osteoporosis.
- Always talk to your healthcare provider before using any herbal remedy.

14. Horehound

A Brief History of Horehound

- Horehound originated in Asia and Europe.
- Ancient Rome used Horehound for coughs and respiratory issues.



Other Names Used for Horehound around the World

Horehound is also known as Marrube Blanc, Bonhomme, Mastranzo, Marrubio Blanco, and Marrubium vulgare.

Nutrient Content of Horehound

Horehound is rich in the following phytochemicals and nutrients: citric acid, escin, caffeic acid, gallic acid, luteolin, pectin, tannins, iron, vitamins A, C, E, and B-complex.

Possible Medical Use of Horehound

Horehound is commonly used to help clear up the lungs from mucus, improve the immune system, stimulate appetite, fight breathing issues like asthma and bronchitis

Parts to Use : Leaves and Flowers.

Tips & Cautions when Using Aloe Vera

- Avoid using horehound if you are pregnant or nursing a baby.
- Do not take horehound if you have diabetes, cardiovascular disease, or blood glucose medications.
- Avoid taking large dose.
- Always talk to your healthcare provider before taking any herbal remedy.

15. Milk Thistle

A Brief History of Milk Thistle

Milk thistle originated in Europe, the Middle East, and parts of Africa more than 2,000 years ago.



Other Names Used for Milk Thistle around the World

Milk thistle is also called, Mary thistle, Holy thistle, Blessed Milk Thistle, Chardon de Marie, Chardon Marbré, Lait de Notre-Dame, Silybum Marianum, and St. Mary Thistle.

Nutrient Content of Milk Thistle

Milk thistle is a powerhouse of many nutrients like beta-carotene, fumaric acid, silandrin, silymarin, silymonin, calcium, healthy fats, iron, potassium, phosphorus, selenium, and zinc.

Possible Medical Use of Milk Thistle

People commonly use milk thistle as an herbal remedy to fight liver disease, inflammatory bowel disorders and boost the immune system.

Part to Use : Leaves, Fruit, and Seeds.

Tips & Cautions when Using Milk Thistle

- Milk thistle extract may lead to diarrhea, nausea, and loss of appetite in certain people.
- Avoid taking milk thistle if you are pregnant or nursing a baby.
- If you have diabetes, monitor your blood sugar when taking milk thistle.
- Always talk to your healthcare provider before taking any herbal remedy.

16. Puncture Vine

A Brief History of Puncture Vine

Puncture vine originated in Europe, Asia, and Africa.

Other Names Used for Puncture Vine around the World

Puncture vine is also called Bendy-eye, Double Gee, Cachito, Torito, Croix de Malte, Gutiba, kurakito, Rasha, Puncture Weed, and Tribulus Terrestris.

Nutrient Content of Puncture Vine

Some of the ingredients of puncture vine are beta-sitosterol, chlorogenin, diosgenin, kaempferol, ruscogenin, rutin, calcium, iron, and vitamin C.

Possible Medical Use of Puncture Vine

Puncture vine is commonly used as a treatment to help correct low sex drive, strengthen the immune system, boost endurance, fight inflammation, and bacteria.

Part to Use : Leaves, Fruit, Flowers, and Stems.

Tips & Cautions when Using Puncture Vine

- Avoid taking puncture vine if you are pregnant or nursing a baby.
- Do not take puncture vine for an extended period.
- Avoid taking puncture vine if you have diabetes or taking blood sugar medications.
- Always talk to your healthcare provider before taking any herbal remedy.

17. Red Clover

A Brief History of Red Clover

Red clover possibly originated in Central Europe, Asia, and Russia. It was brought to England around 1650 to be finally landed in North America. Historically, people have used red clover to treat respiratory issues.



Other Names Used for Red Clover around the World

Red clover also known as Beebread, Daidzein, Isoflavone, Miel des Prés, Phytoestrogen, Trebol Rojo, Trèfle des Prés, Trèfle Pourpre, Trèfle Violet, Wild Clover, and Trifolium Pratense.

Nutrient Content of Red Clover

Red clover is rich in many nutrients like beta-carotene, biochanin, caffeic acid, coumarin, daidzein, eugenol, methyl salicylate, p-coumaric acid, calcium, iron, phosphorus, potassium, selenium, zinc, vitamins C and E.

Possible Medical Use of Red Clover

People use red clover to treat a variety of medical conditions like infectious diseases, menopausal symptoms, coughs, bronchitis, asthma, inflammatory lungs, IBD, kidney problems, prevention against cancer, and immune system weakness.

Part to Use : Flowers.

Tips & Cautions when Using Red Clover

- Red clover may lead to bleeding. Avoid taking large doses.
- Always talk to your healthcare provider before using any type of herbal remedy.

18. Slippery Elm

A Brief History of Slippery Elm

Slippery elm or *Ulmus rubra* originated in the United States. It has been widely used to treat the common colds, coughs, and other bronchial issues.



Other Names Used for Slippery Elm around the World

Slippery Elm is also known as Indian Elm, Orme Roug, and Sweet Elm.

Nutrient Content of Slippery Elm

Slippery elm is rich in beta-carotene, starch, tannin, calcium, iron, phosphorus, potassium, selenium, zinc, and vitamin C.

Possible Medical Use of Slippery Elm

People commonly use slippery elm to treat diarrhea, ulcers, colds, flu, sore throat, Crohn's disease, UC, IBS, and diverticulitis.

Part to Use : Inner bark.

Tips & Cautions when Using Slippery Elm

- Monitor for allergic reactions when using on skin.
- Do not use slippery elm if you are pregnant or nursing a baby.
- If you are on any type of prescription drug, avoid having slippery elm less than one hour after taking your medications.
- Always talk to your healthcare provider before taking any herbal remedy.

19. Thyme

A Brief History of Thyme

Thyme has been around for several thousand years. People of the ancient world used it as prevention against poison and contagious diseases, as well as a popular cooking ingredient.



Other Names Used for Thyme around the World

Thyme is also known under several other names like Farigoule, French Thyme, Mignotise des Genevois, Oil of Thyme, Red Thyme Oil, Serpolet, Thym des Jardins, Thyme Oil, Thymi herba, Thymus zygis, Tim, Vanya Yavani,

Nutrient Content of Thyme

Thyme contains many nutrients like apigenin, beta-carotene, caffeic acid, caprylic acid, cinnamic acid, citral, ferulic acid, limonene, oleanolic acid, tannin, amino acids, calcium, iron, phosphorus, potassium, selenium, zinc, and vitamin C.

Possible Medical Use of Thyme

Thyme is commonly used to fight asthma, bronchitis, fever, coughs, mucus, sore throat, high blood cholesterol, and worm infections.

Part to Use : Leaves, Flowers, and Berries.

Tips & Cautions when Using Thyme

- Avoid taking large amount of thyme if you are pregnant or nursing a baby.
- Taking too much thyme may lead to bleeding.
- Always talk to your healthcare provider before taking any herbal remedy.

20. Turmeric

A Brief History of Turmeric

Turmeric is a well-known herbal remedy worldwide. People have used it for more almost 4,000 years. As history shows, turmeric has reached Asia and Africa between the years 1,200 and 700 AD.



Other Names Used for Turmeric around the World

Depend on which part of the world that you live, turmeric may be known under many other names like Haldi, Anestha, Bhadra, Uqdah Safra, Halud, Geung Wohng, Šafrán, Terre-mérite, Curcuma, Curcumă, kurkumy, and Azafrán Arabe²⁹ .

Nutrient Content of Turmeric

Turmeric is rich in the following nutrients: alpha-terpineol, beta-carotene, borneol, caffeic acid, cinnamic acid, curcumin, limonene, turmerone, calcium, iron, zinc, and vitamin C.

Possible Medical Use of Turmeric

Turmeric is known to treat arthritis, conjunctivitis, UTI, preventing Alzheimer's, lower blood cholesterol, and strengthen the immune system. It may also be used to avoid certain forms of cancer.

Part to Use : Rhizomes.

Tips & Cautions when Using Turmeric

- Avoid using a hefty dose of turmeric.
- Do not use turmeric if you have diabetes or stomach ulcers.
- Always speak to your medical care team before using any type of herbal remedy.

21. White Willow

A Brief History of White Willow

The use of white willow as herbal medicine dates as far as 500 BC. People in ancient Greek, China, and Egypt have used it as a pain reliever.



Other Names Used for White Willow around the World

White willow is known under many other names like Bay Willow, Black Willow, Écorce de Saule, Knackweide, Salix alba, Saule Blanc, and Saule Noir.

Nutrient Content of White Willow

White willow contains many vital nutrients like apigenin, beta-carotene, lignin, rutin, salicin, tanning, calcium, iron, phosphorus, selenium, zinc, and vitamin C.

Possible Medical Use of White Willow

White willow is commonly used as a painkiller against headaches, back pain, and joint pain. It is also used to fight inflammation, toothache, and boost the immune system.

Part to Use : Bark.

Tips & Cautions when Using White Willow

- Avoid using white willow if you are pregnant or nursing a baby.
- Do not give this herbal medicine to children.
- White willow may lead to bleeding.
- Do not use white willow if you suffer from kidney disease.
- Discuss the use of any herbal remedy with your healthcare provider.

22. Wild Oregano

A Brief History of Wild Oregano

Oregano originated in the Mediterranean region and Asia, where people have used it to treat digestive and cough problems.



Other Names Used for Wild Oregano around the World

Oregano is called many other names like Dostenkraut, Huile d'Origan, Marjolaine Vivace, Mountain Mint, Origan, Phytoprogestin, Thé Sauvage, Thym des Bergers, and Wild Marjoram.

Nutrient Content of Wild Oregano

Wild oregano is rich in many healthful nutrients like apigenin, beta-carotene, caffeic acid, carvacrol, catechol, cinnamic acid, eugenol, geranial, linalool, luteolin, p-coumaric acid, rutin, tannins, vanillic acid, calcium, iron, potassium, zinc, vitamins A and C.

Possible Medical Use of Wild Oregano

Wild Oregano is used to treat inflammatory diseases, viral and bacterial infection, acne, arthritis, asthma, bronchitis, colds, coughs, flu, diarrhea, digestive issues, heartburn, UTI, and toothache.

Part to Use : Leaves, Shoots, and Stems.

Tips & Cautions when Using Wild Oregano

- Do not use oregano if you are pregnant or nursing a baby.
- Monitor your blood sugar if you have diabetes.
- Oregano might lead to allergic reactions in some people.
- Always talk to your healthcare provider before using any herbal remedy.

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