

# Top 12 Immune Support Strategies to Thrive in Life

---

DJ [drjockers.com/immune-support-strategies/](https://drjockers.com/immune-support-strategies/)

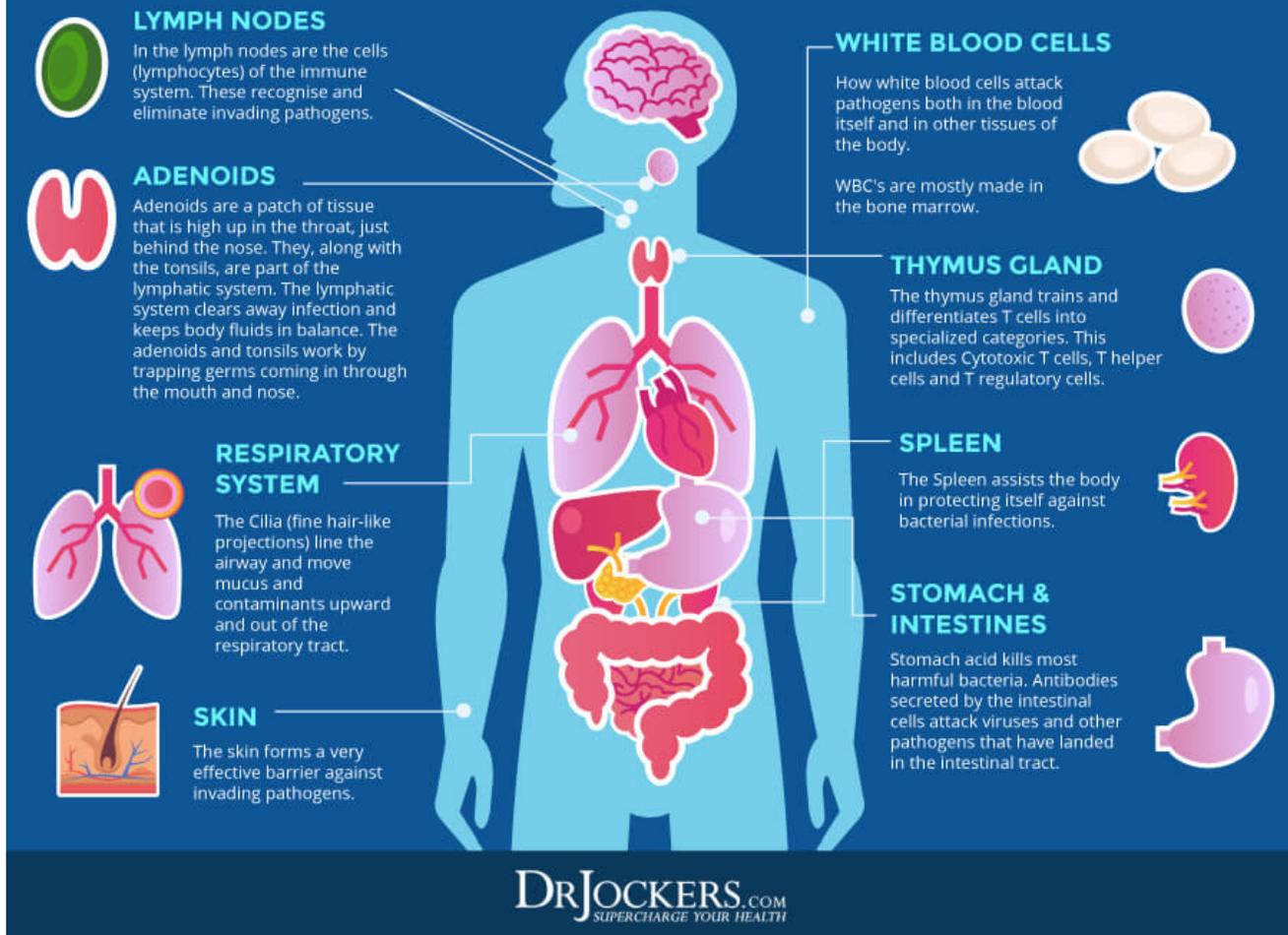
November 12, 2020



Your immune system is a complex system that protects you from viruses, bacteria, parasites, and other pathogens. It is a complex system that's essential for your health and survival. Optimal immune support is important for your health at all times. As we face more stressful experiences it is even more important to strengthen your body with good immune support strategies.

In this article, you will learn more about the immune system and the importance of supporting a balanced immune response. While these 12 strategies are not supported by the FDA as a treatment for any health condition, they can be highly supportive for your body's overall wellness.

# THE BODY'S IMMUNE DEFENSE SYSTEM



## What is the Immune System

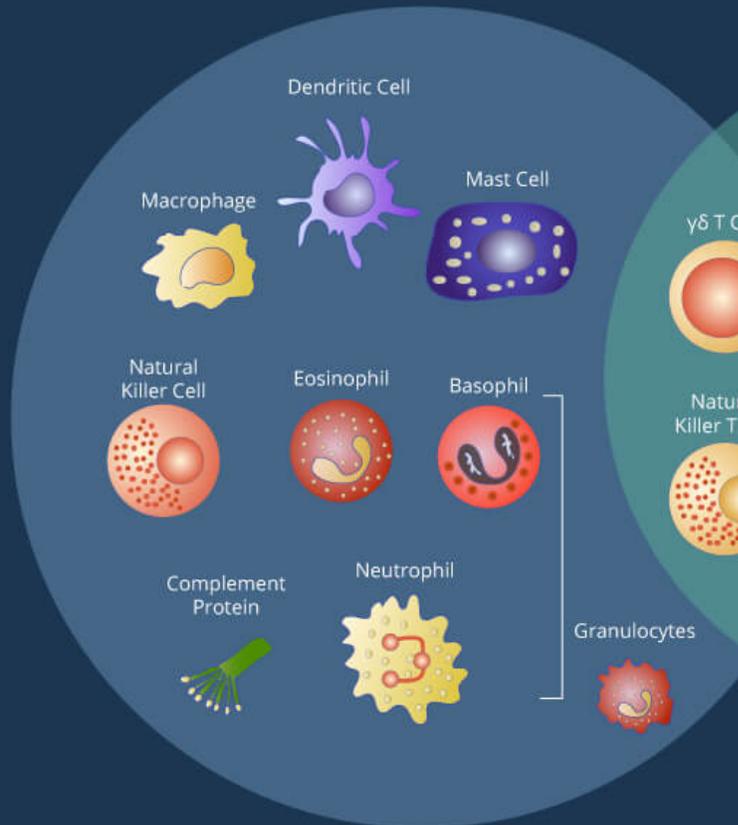
Your immune system is critical to your overall health and survival. Your immune system keeps you healthy and protects your body from viruses, bacteria, parasites, fungi, and other pathogens.

If you want to understand your immune system, imagine a network of cells and tissues spread throughout your body involving your cells, tissues, and organ. Your immune system is on a constant lookout for invaders and ready to attack and protect you through a so-called immune response. It is your defense system and inner-army of protection (1, 2, 3, 4).

# THE BODY'S NATURAL IMMUNE RESPONSE

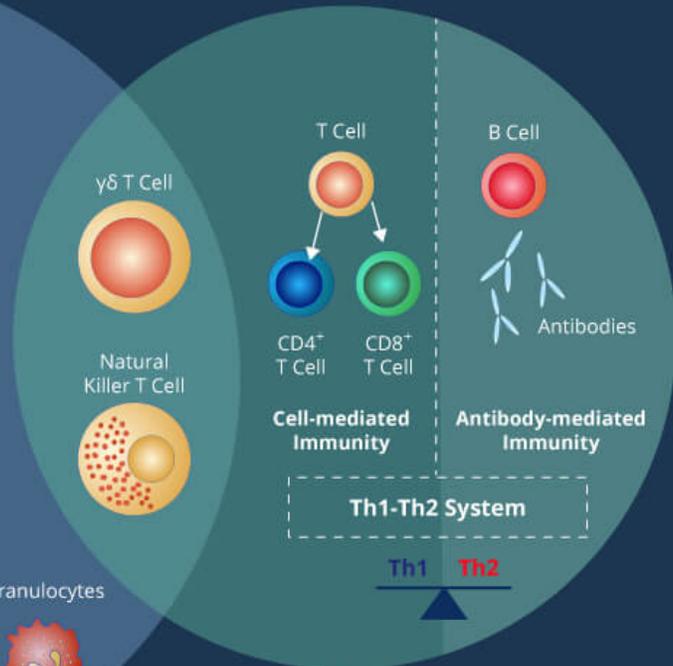
## INNATE IMMUNITY

(Rapid Response)



## ADAPTIVE IMMUNITY

(Slow Response)



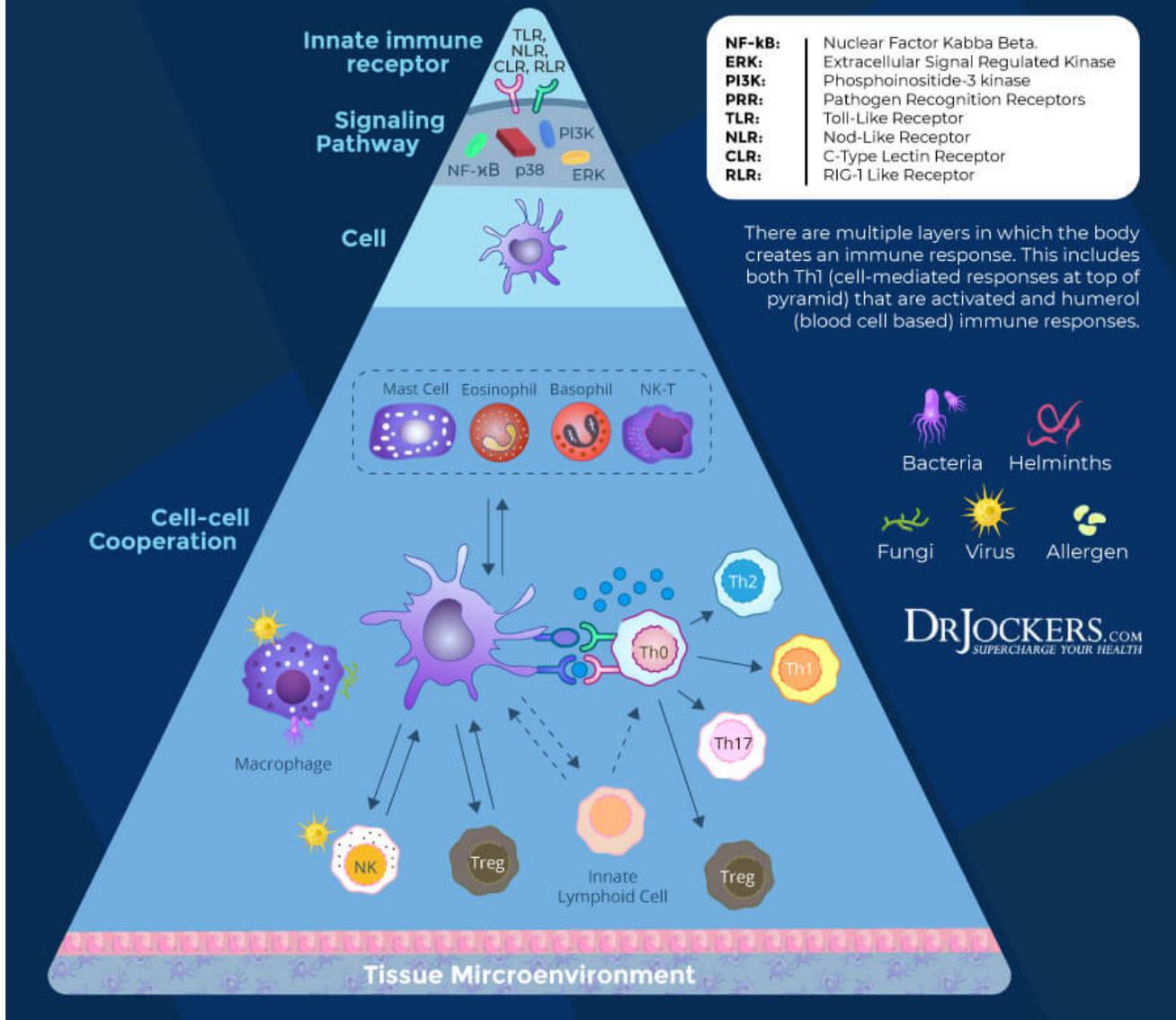
DRJOCKERS.COM  
SUPERCHARGE YOUR HEALTH

## Parts of the Immune System

White blood cells, or leukocytes, are some of the main characters in your immune system. They are found in various lymphoid organs, including your thymus, spleen, bone marrow, and lymph nodes. They circulate across your body through blood vessels and lymphatic vessels. They are on the look-out for pathogens, and when noticing one, they multiply and urge others to do the same.

There are two kinds of leukocytes. Phagocytes, including mast cells, monocytes, macrophages, and neutrophils, absorb and break down pathogens by eating them. Lymphocytes recognize previous invaders and attack them if they show up. B lymphocytes make antibodies and let the T lymphocytes know when pathogens show up. T lymphocytes kill compromised cells and alert other leukocytes for help (1, 2, 3, 4).

# THE PYRAMID OF IMMUNE RESPONSE



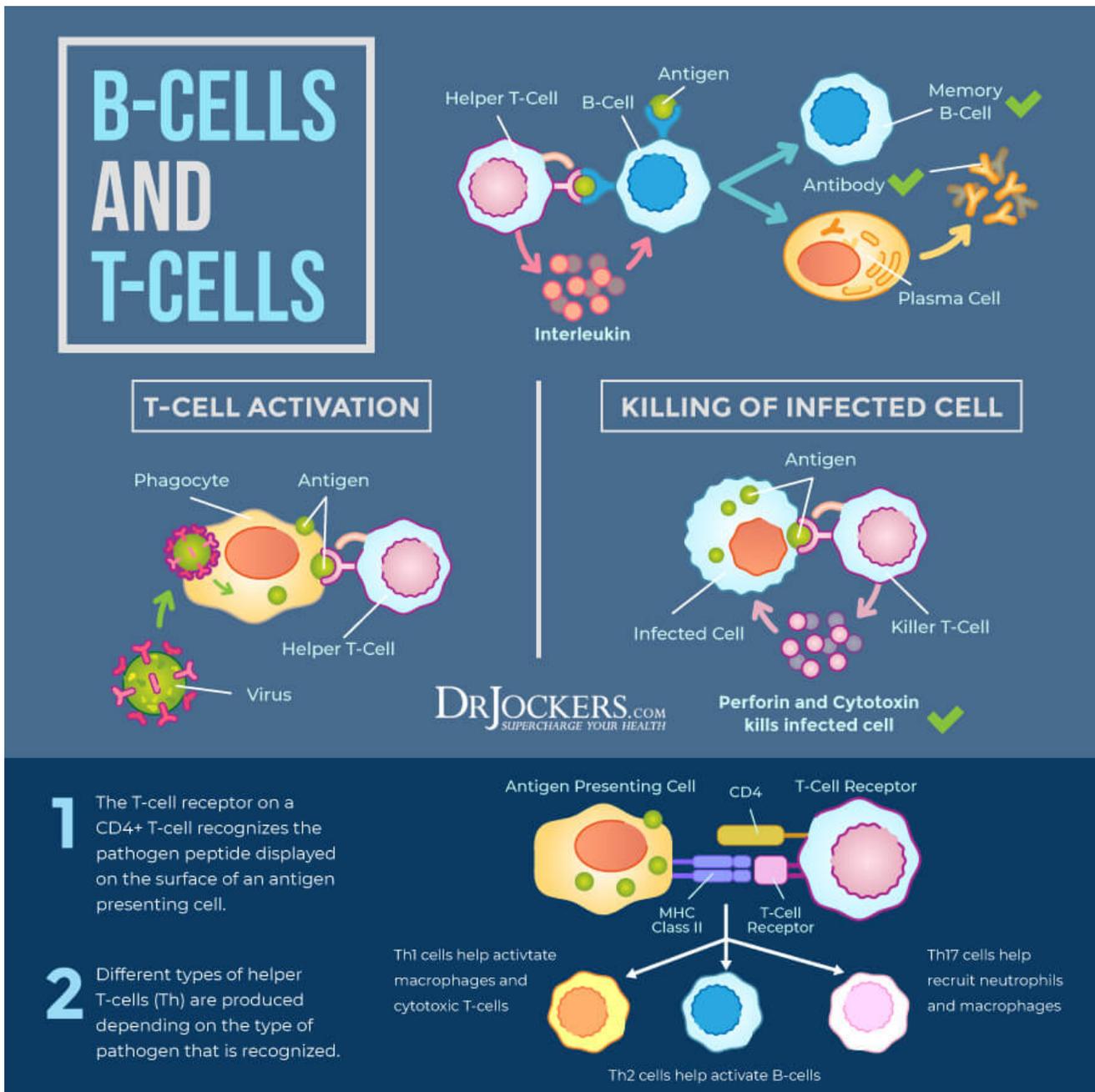
## Immune Response Process

Antigens are any substances that are considered to be an invader. They prompt an immune response. They include viruses, bacteria, fungi, toxins, or other foreign materials. When your B lymphocytes, or B cells, spot an antigen, they release antibodies. Antibodies are part of the immunoglobulin family and are a type of protein that can lock antigens.

Each antibody has a special function and can help to protect you from a specific antigen. For example, you have different antibodies for the common cold than for the flu or pneumonia. If we encounter a new virus, we don't have antibodies to it, so it can potentially cause more

harm until our body adapts and creates appropriate antibodies is that because it is a new virus. Antibodies attach to antigens and mark them as cells called phagocytes in order to kill them.

T lymphocytes, also called T cells or Th cells help to coordinate the immune response. They communicate with cells, prompt B cells to produce antibodies and phagocytes to kill antigens. Killer T cells or cytotoxic T lymphocytes can also fight other cells and are especially important for fighting viruses and destroying cells infected by a virus (1, 2, 3, 4).

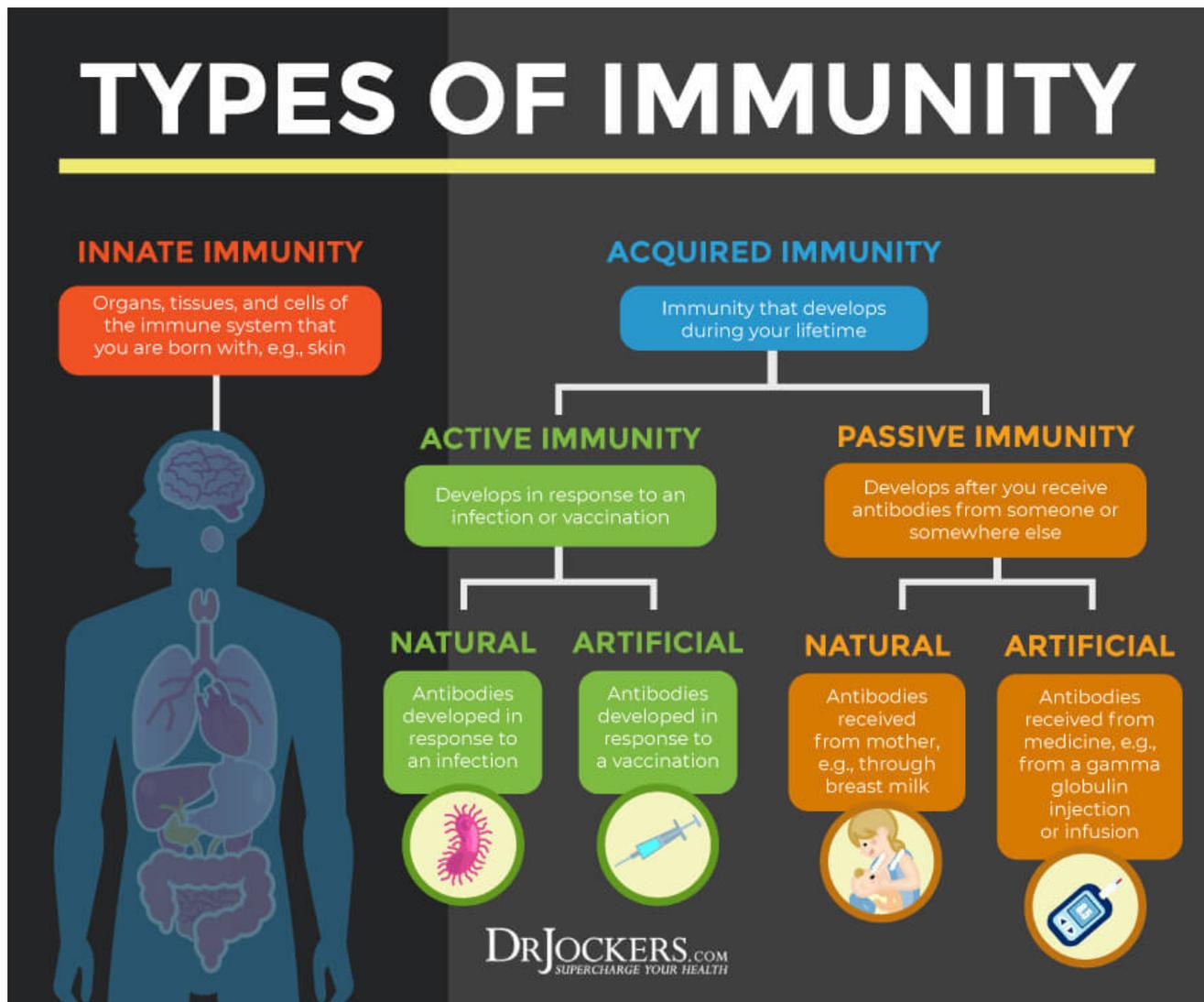


## Types of Immunity

Once your body creates an antibody it stays in your body forever. This storage is the reason why you cannot get the chickenpox twice and helps your body fight other infections and illnesses. This protection from your immune system is called immunity.

**There are several types of immunity:**

- **Innate immunity:** This is the immunity you are born with that allows your body to fight pathogens until you develop adaptive immunity.
- **Adaptive immunity:** This form of immunity is also called acquired immunity. It is a library of antibodies that your body develops through being exposed to and fighting off pathogens throughout your life.
- **Passive immunity:** This is a form of immunity that includes a baby's protection through the placenta or breast milk and lasts for a certain period to protect the body until it can defend itself.
- **Immunization:** Immunization exposes your body to antigens and weakened pathogens to protect your body from specific infections and illness in the future.



## Immune System Problems

---

Your immune system is a very complex system, hence there are various ways it can get out of balance and become compromised.

### Immunodeficiency

---

You may develop an immunodeficiency that means that one or several parts of your immune system cannot function optimally. Immunodeficiencies may develop for a variety of reasons, including genetic defects from birth, age, obesity, malnutrition, infections and alcoholism. AIDS is a form of immunodeficiency acquired from an infection with the HIV virus.

### Autoimmunity

---

You may develop autoimmunity or an autoimmune condition. This means that your immune system attacks and destroys cells in your body mistaking them for pathogens or compromised cells. Autoimmune conditions include Celiac disease, Hashimoto's disease, rheumatoid arthritis, type 1 diabetes, and lupus.

### Hypersensitivity

---

Hypersensitivity means that your immune system overreacts to something and damages healthy cells. Anaphylactic shock due to an allergen is one example of this.

Even if you don't have any of these immune system problems, unhealthy lifestyle and dietary choices, toxins, and stress can weaken your immune system and thus compromise your immune system response making you more vulnerable to illness and making recovery more difficult.

# A BALANCED IMMUNE SYSTEM

## Internal Threat

**Autoimmune problem**  
(Hashimoto's Thyroiditis, Rheumatoid Arthritis, Lupus, Inflammatory bowel disease, Type 1 Diabetes)

## External Threat

**Allergic Reaction**  
(Food sensitivities, allergies, eczema, asthma, sinusitis)

**Immune Over-reaction**

**Balanced Immune System = Optimal Effectiveness**

**Immune Under-reaction**

**Cancer**  
(Hepatitis, HIV, Shingles, TB)

**Infection**  
(Bacteria, Mold/Fungus, Parasites, Viruses)

DRJOCKERS.COM  
SUPERCHARGE YOUR HEALTH

## Supporting a Balanced Immune Response

Your immune system is a complex entity that works hard every moment of every day to protect you from infections and illnesses. When it is out of balance, suppressed, or overstimulated, it cannot function optimally.

Your T cells help to coordinate immune regulation and kill compromised cells. However, T cell function decreases as you age and lowers immunity, especially in older adults. This is why respiratory infections, influenza, and pneumonia cause more risk and are among the leading causes of death in those over 65. Unhealthy lifestyle choices, including an inflammatory diet, lack of exercise, smoking, inadequate sleep, chronic stress, and improper hygiene can also compromise your immunity and make you more prone to disease.

Supporting a balanced immune response is critical for your health and well-being. The good news is that it is never too late to start making dietary and lifestyle changes to support proper T cell function and immune regulation (5, 6, 7, 8).



## Top 12 Immune Support Strategies

Supporting your immune system is important no matter what. You want your body to be strong and healthy so that it can protect you from infections, illness, and disease. There are certain strategies that promote optimal immune system expression.

It is important to remember that none of these strategies are supported by the FDA for treatment or prevention of any health condition. With that said, it is my personal opinion and the opinion of many other health experts that they support and improve your immune response.

## Be Grateful & Positive

Chronic stress can be detrimental to your immune system, increase inflammation, and make you more vulnerable to infections and illness. Being grateful and keeping a positive mindset is more important than ever before to lower your stress level and protect your immune system. Keep a daily gratitude journal. Stop several times a day to be thankful for the good things. You can even set a timer on your phone to remind you to practice a moment of gratitude.

Engage in uplifting activities, such as dancing in your living room, playing with your kids or pets, watching a comedy, listening to music, or reading your favorite book. Say a prayer or practice any spiritual activities that feel right for you. If you need help in developing a positive mindset, seek help from a counselor, therapist, or life coach. Many are available online.

# GIVE THANKS

## Grateful People

-  Have More Energy and Optimism
-  Are Less Bothered By Life's Hassles
-  Are More Resilient in the Face Of Stress
-  Are Healthier
-  Have a Positive Mood
-  Are More Compassionate
-  Are More Likely to Help Others
-  Are Less Materialistic
-  Are More Satisfied with Life

*"I would maintain that thanks are the highest form of thought, and that gratitude is happiness doubled by wonder."*

- Gilbert K.Chesterton



## TIPS TO BECOME MORE GRATEFUL

Keep a daily journal of 3 things you're thankful for.

Tell someone in your life something you appreciate about them everyday.

Silence the negative. Make an effort not to complain.

**DRJOCKERS**.COM  
SUPERCHARGE YOUR HEALTH

## Prioritize Good Sleep For Immune Support

Getting poor sleep on a regular basis can lead to increased stress, high inflammation, and lower immunity. Make sleep a priority. Make sure to go to bed and wake up around the same time each day to help your circadian rhythm. Develop a nighttime routine that supports relaxation.

Avoid electronics and instead try board games, reading, relaxing music, crossword puzzles, crafts, coloring, meditation, and journaling. Make sure your bedroom is a safe sanctuary with a comfortable bed, bedding, and pillows **(9)**.



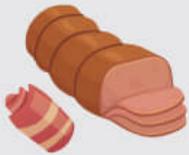
## Avoid Sugar & Processed Foods

Sugar and processed foods are extremely inflammatory to your body. Chronic inflammation can lead to poor immune function which increases your risk of infection and disease.

Avoid processed foods and foods that are high in refined sugar, refined oils, gluten, conventional dairy, artificial ingredients, coloring, and additives. Choose an anti-inflammatory diet rich in greens, vegetables, fruits, clean protein, and healthy fats **(10)**.

## Top Foods and Food Ingredients That Promote Inflammation

DRJOCKERS.COM  
SUPERCHARGE YOUR HEALTH

 <p>Gluten</p>	 <p>Sugar</p>	 <p>Refined Carbohydrates</p>	 <p>Conventionally Raised Meat and Dairy</p>	 <p>Farm Raised Fish and Seafood</p>
 <p>Processed Conventional Meats</p>	 <p>Trans Fats (Partially Hydrogenated Oils)</p>	 <p>Food Additives and Preservatives</p>	 <p>Highly Processed Vegetable and Seed Oils</p>	 <p>Artificial Sweeteners</p>

## Practice Intermittent Fasting For Immune Support

Intermittent fasting is a strategy that involves fasting (not eating) for a period of time followed by a period of feasting (eating). Intermittent fasting increases autophagy, cellular rejuvenation, immune system function, and genetic repair. It reduces inflammation and the risk of disease (11, 12, 13, 14, 15, 16, 17, 18, 19).

I recommend that you start out with a Simple Fast that involves 12 hours of fasting including your overnight sleep. Slowly increase your fasting time and graduate to Strong Fast or 16:8 Fast with a 16-hour fasting window. I explain different fasting strategies and how to get started with intermittent fasting in [this article](#).

You may even want to go to eating 2 meals in a 6-hour window, with an 18 hour fasting window. Even if you only do this one or two days a week, it can be extraordinarily helpful. I think a sweet spot is a 16-18 hour fast, 4-5 days a week and one day where you do a 20-24 hour fast.

# 7 WAYS TO DO DAILY INTERMITTENT FASTING



Simple Fast:	12 hours
Brunch Fast:	14 hours
Crescendo Fast:	16 hours - 2 days per week
Cycle Fast:	16 hours - 3x weekly
Strong Fast:	16-18 hours daily
Warrior Fast:	19-21 hours daily
1 Day Fast:	Full 24 hour fast each week

DRJOCKERS.COM  
SUPERCHARGE YOUR HEALTH

## HOW FASTING IMPACTS THE IMMUNE SYSTEM

- Autophagy
- Reduces Inflammation
- Improves Microbiome
- Regenerates Immune Cells



DRJOCKERS.COM  
SUPERCHARGE YOUR HEALTH

**Consume Immune Support Enhancing Foods**

Eat an immune-supporting, anti-inflammatory, nutrient-dense diet. Focus on organic greens including chard, kale, and spinach, vegetables, including cucumber, celery, and broccoli, herbs and spices including turmeric, ginger, basil, and mint, low glycemic index fruits including lemon, lime, and berries, healthy fats including avocado, coconut oil, extra virgin olive oil, grass-fed butter, and ghee, clean protein including grass-fed beef, free-range poultry and eggs, wild-caught seafood, fermented foods including kimchi, sauerkraut, and kefir, and medicinal mushrooms including reishi, cordyceps, and turkey tail.

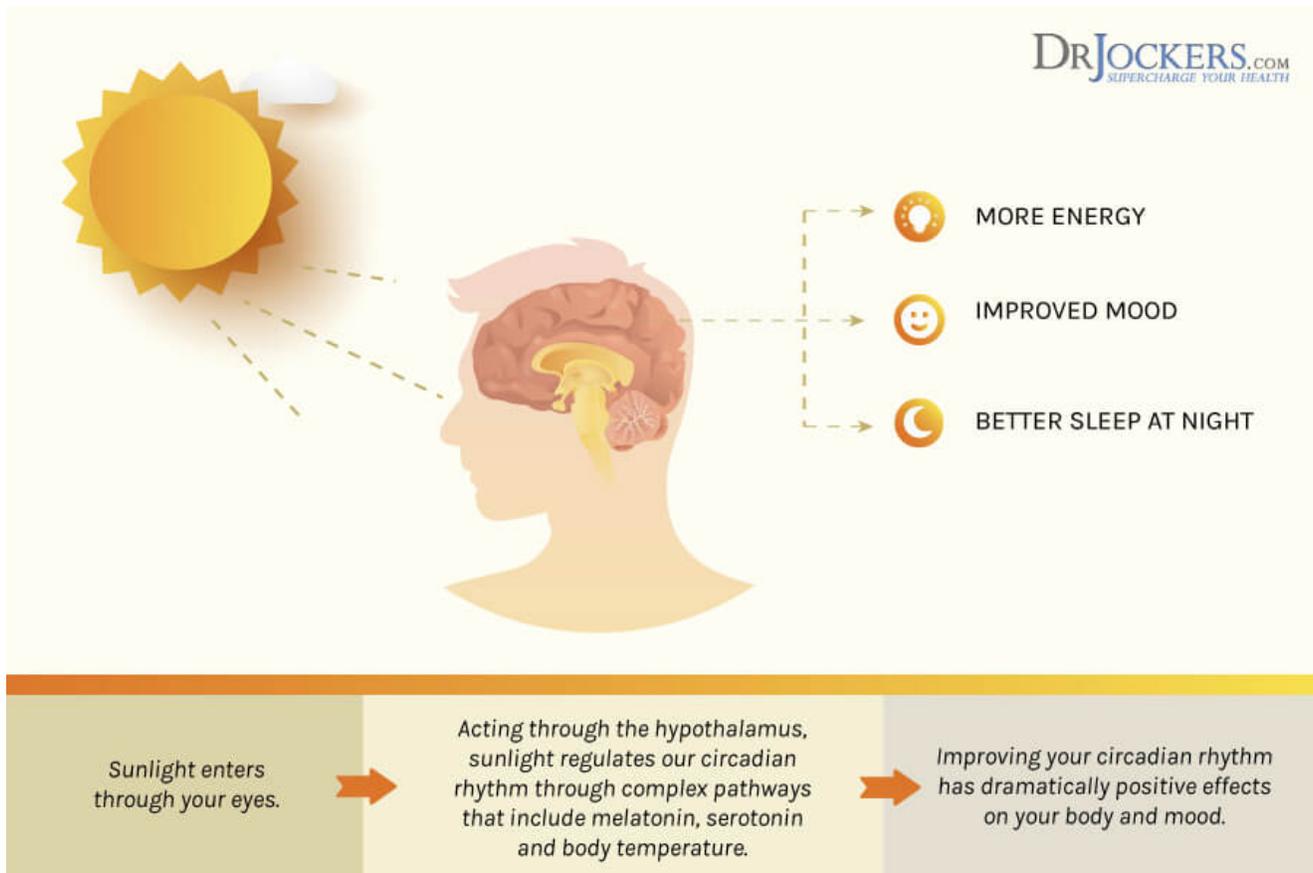
Choose home-cooked meals whenever possible. I would highly encourage you and your family to start cooking more and to try new recipes that support the immune system. My [recipe directory](#) is full of delicious, immune-supporting options that you and your family will love (10).



## Fresh Air, Sunshine, and Grounding

Being outdoors has endless benefits. Being in the sunshine can increase your vitamin D levels which are important for optimal immune function. Sunshine can also improve your mood, reduce stress, and elevate depression and anxiety. Breathing the fresh air helps to clear your lungs. Grounding, standing or walking on dirt, grass, or sand, can help you connect you to the earth and improve your physical and mental health (20, 21).

Be sure to step outside and spend time in your garden, yard, balcony, or street in front of your house or apartment as much as you can. Open the windows to let the fresh air in. Grow some plants to allow nature to be present inside. Go for a walk or a jog while keeping the recommended social distance in order to uplift your spirit and improve your immune system during this time.



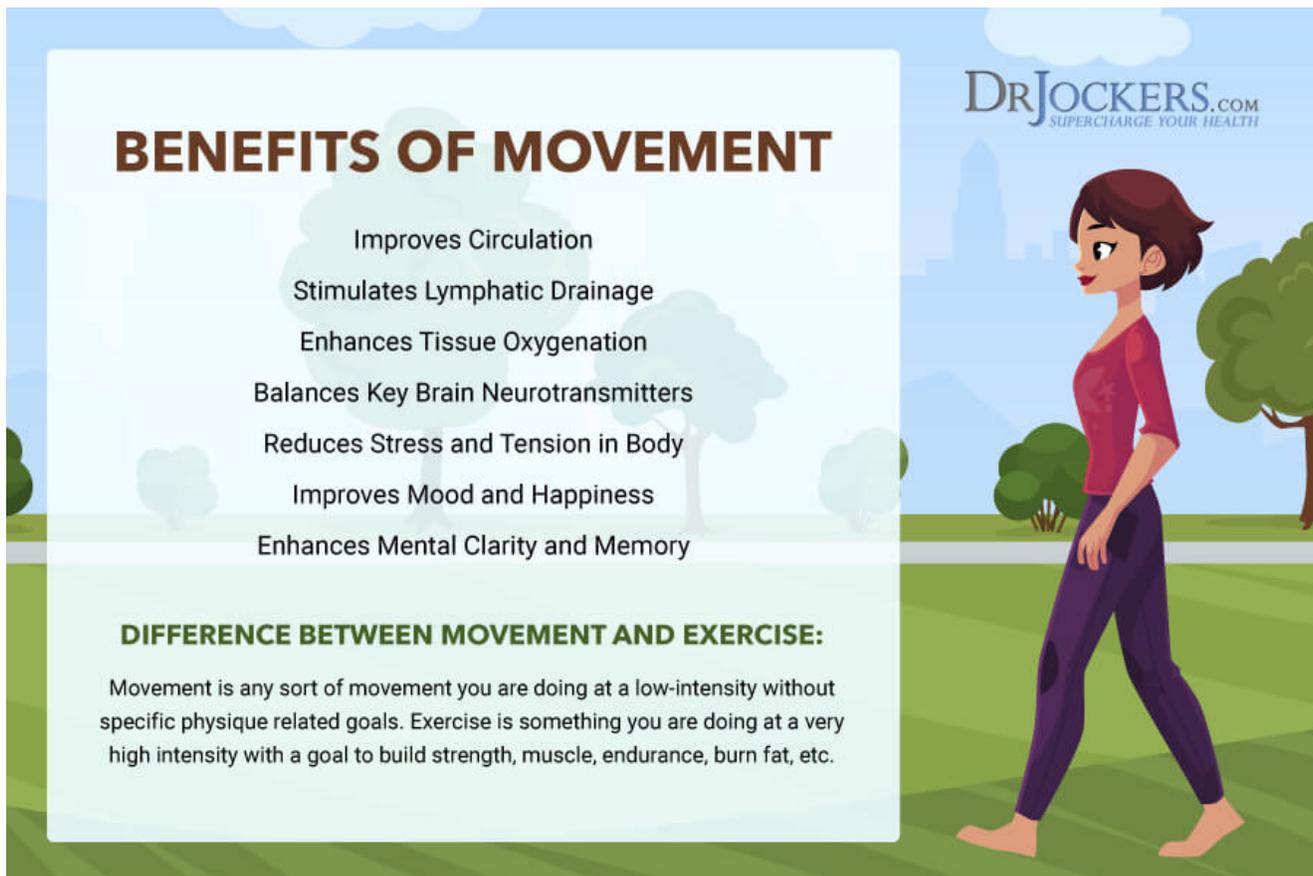
## Regular Movement & Exercise

Regular movement and exercise are particularly important for a healthy immune system. It improves your lung function, cardiovascular health, mood, and energy levels while reducing inflammation and building strength and muscle. Make sure to exercise 20–30 minutes a day.

I am a huge advocate of resistance training because it helps to optimize your hormones, build lean body tissue, and burn fat. Strengthening your lean body tissue will help you the most with your metabolic health. I recommend doing some form of resistance training three to five times weekly.

You may also mix up cardiovascular exercises, such as walking, running, biking, or dance, as well as body training exercise routines like yoga, Pilates, kettlebell, etc.

Even if you are home, make sure to take time throughout the day to stretch, do a yoga sequence, walk around the room, dance for your favorite songs, or if possible, go outside for a short walk or try gardening.



## Good Hydration & Drink Herbal Teas

Good hydration is essential for a healthy immune function. I recommend that you drink 8 to 10 glasses of clean water minimum a day. If you are exercising, spend time outside in the sun. If you are recovering from an illness or infection, or otherwise feeling dehydrated, drink more. Listen to your body.

I recommend systems like [Aquatru](#) or the [Berkey system](#) for low cost filtration. The best water is the [Synergy Science hydrogen water](#) which is what I use at home, as it is powered by molecular hydrogen which reduces oxidative stress in the body and improves immune function. Add a slice of lime for some extra flavor. Additionally, I recommend drinking herbal tea as well. Echinacea, ginger, and peppermint are fantastic options for immune support (10).

# Key Tips for Optimal Hydration

## Get Pure Filtered Water

Use reverse osmosis or distilled water or some sort of very good filtration to get toxins and impurities out of the water.

## Use High Quality Salts

Use a really good sea salt like Redmond's Real Salt, Celtic Sea Salt and Himalayan Sea Salt

## Wake Up With Water

Drink at least 8-16 oz of water within the first 20 minutes of waking and aim for 32 oz of water before eating anything.

## Think Water First

Before you think about snacking, always consider water and drink at least 8 oz and see if the hunger, cravings or desire for food goes away.

## Drink Continuously

Drink at least 4 oz every 30 minutes throughout the day. Stop drinking about 15 minutes before a meal, drink very little with the meal and then pick up your hydration beginning 30-60 minutes after your meal.

## Reduce Alcohol and Caffeine Consumption

You can use these in moderation but overdoing it, such as more than 2 servings combined of alcohol and caffeine per day can easily dehydrate you.

## Flavor Your Water with Stevia

Add stevia drops which have no calories, no chemicals, are natural and give a great flavor to your water. Most people find it much easier to hydrate with the stevia drops.

DRJOCKERS.COM  
SUPERCHARGE YOUR HEALTH

## Optimize Vitamin D Levels

Vitamin D is essential for healthy immune function. While the sun is your best friend for boosting vitamin D, chances are you don't spend enough time outside in the sun to meet your needs.

Vitamin D-rich foods, including fatty fish, beef liver, and egg yolks offer some support, but not enough to optimize your vitamin D levels (**22**). Pairing vitamin D3 with vitamin K2 helps improve calcium absorption and inflammation control.

I recommend taking a vitamin D3 supplement with at least 3,000-5,000 IU's of vitamin D3 and at least 90 mcg of vitamin K2. I highly recommend this **Vitamin D3/K2 Power**. This supplement support your immune, skin, cardiovascular, and bone health.

Typically, taking 1,000 IU per 25 lbs. of body weight will help you get your levels into a healthy range. You want to test your vitamin D levels at least 1-2 times each year and get your levels between 50-100 ng/ml. It has been hypothesized that a therapeutic level for major health conditions is going to be between 70-100 ng/ml.

## 10 Signs That You May Need More Vitamin D



### Greater Pain Sensitivity

Insufficient levels of vitamin D have been linked to chronic pain.



### Mood Issues

Before you blame your grouchiness on PMS, know that D affects the levels of serotonin in your brain – which also impacts your mood.



### Depression

Women with low levels of D are twice as likely to suffer with depression



### Sleepiness

Lower levels of vitamin D were linked to higher levels of daytime sleepiness.



### Muscle Weakness

Decreased muscular size can be the result of not enough vitamin D in muscle and nerve tissue.



### High Blood Pressure

Vitamin D plays a role in heart health, helping to regulate blood pressure. So when you don't get enough, your blood pressure can creep up.



### Decreased Endurance

Some studies have shown reduced aerobic capacity and overall endurance in athletes with low vitamin D levels.



### Stress Fractures

When you're low in the nutrient, your bones become weakened, meaning your risk for stress fractures increases.



### Frequent Illness

Vitamin D is very important for healthy immune response. People with vitamin D deficiency get colds and flu's more often.



### Learning Disorders

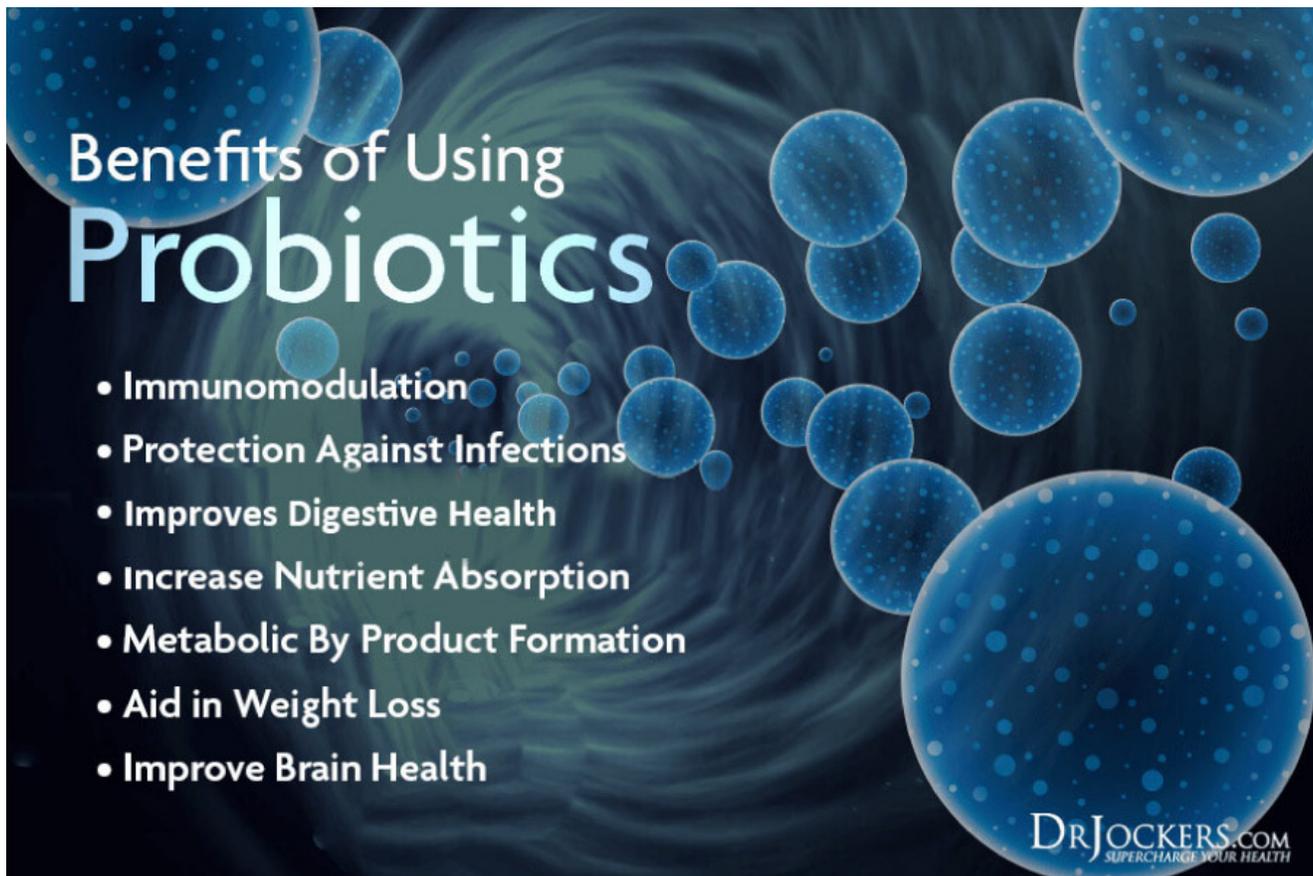
Vitamin D plays an important role in childhood brain development. Individuals with learning disorders have a higher prevalence of vitamin D deficiency

DRJOCKERS.COM  
SUPERCHARGE YOUR HEALTH

Take Probiotics & Digestive Enzymes

Your gut health and immune health are interconnected. Keeping your gut microbiome balanced is absolutely critical for a healthy immune system. For digestive support, I recommend **Super D-Zyme**, a powerful digestive enzyme that benefits your digestion, enhances nutrient absorption and helps the breakdown of lactose and polysaccharides. Take it daily with each meal.

For microbiome balance, I recommend taking a good probiotic supplement such as [MegaSporeBiotic here](#). Take it daily for optimal gut and immune health benefits (23, 24).



## Use Vitamin C & Zinc For Immune Support

---

Vitamin C and zinc are both essential for immune health. Vitamin C-rich foods include lemon, lime, oranges, mandarins, grapefruits, guava, strawberries, papaya, pineapples, kiwi, sweet green pepper, broccoli, and brussels sprouts.

Foods that are rich in zinc include spinach, pumpkin seeds, salmon, and grass-fed dairy. Additionally, I use **Super C** and **Zinc Charge** to help support my immune system (25, 26, 27, 28).

# THE BENEFITS OF VITAMIN C

Supports Immune Health

Improves Energy and Adrenal Health

Supports Healthy Joints and Skin

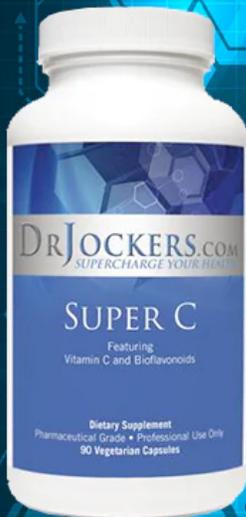
Improves Blood Flow and Heart Health

Supports Healthy Aging

Improves Histamine Response

DRJOCKERS.COM  
SUPERCHARGE YOUR HEALTH

## Key Benefits of Super C



- ✓ Adrenal Support
- ✓ Antioxidant Activity
- ✓ Cardiovascular Support
- ✓ Immune System Support
- ✓ Cell-Life Regulation

Use an Infrared Sauna For Immune Support

Infrared saunas have countless health benefits. They support detoxification, improve immune health, reduce stress, and improve energy. To learn more about the benefits of infrared saunas, read [this article](#).

For optimal immune support and health benefits, I recommend an infrared sauna by [Synergy Science](#) as a great affordable option with safe, deep penetrating, detoxifying, and immune-supporting benefits (29, 30, 31, 32).

## HOW SAUNA THERAPY IMPROVES HEALTH

- Activates Heat Shock Proteins (HSP's)**
  - HSP's act to break down damaged proteins and stimulate regrowth
  - Sauna therapy activates HSP's by up to 16 times the baseline.
- Increases Growth Hormone (HGH)**
  - Sauna therapy has been shown to increase HGH up to 5 times baseline levels
  - HGH acts to preserve lean body tissue, burn fat, improve cellular healing and immune response.
- Stimulates Autophagy**
  - Autophagy is when the body breaks down bad cells and recycles the components for cell renewal.
  - Sauna therapy activates HSP's which enhance autophagy and cell renewal
- Reduces Inflammation**
  - Sauna therapy improves the body's immune response and reduces inflammation
- Facilitates Detoxification**
  - Perspiration is one of the main ways we eliminate toxic chemicals.
- Improves Physical Endurance**
  - Increases blood plasma volume
  - Improves blood flow through body
  - Improves thermoregulation response
- Improves Insulin Sensitivity**
  - Studies have shown improvements in blood glucose and insulin sensitivity with sauna usage.
  - Improved insulin sensitivity enhances fat burning and reduces inflammation.

DRJOCKERS.COM  
SUPERCHARGE YOUR HEALTH

## Bonus Strategy: 3-Day Fast or Partial Fast

If you are not feeling well or simply want an extra immune system boost, I recommend that you do a 3-day fast or a partial fast. If you are embarking on a 3-day fast, I recommend reading [this article](#) to learn about the benefits and best strategies.

This sort of fast has been shown to stimulate deep levels of cellular healing and the breakdown of old senescent immune cells and the generation of new, healthy immune cells.

I only recommend 3-day water fasts if you are already experienced with and do well on

longer intermittent fasting strategies.

If you are not yet physically or mentally ready for a 3-day fast, a partial fast is a fantastic alternative. You may choose to do a 3-day green juice fast, as explained [here](#), or a bone broth fast, as discussed [here](#). Make sure to follow an immune-supporting, nutrient-dense diet as well as immune-supporting lifestyle strategies after your fast (33).

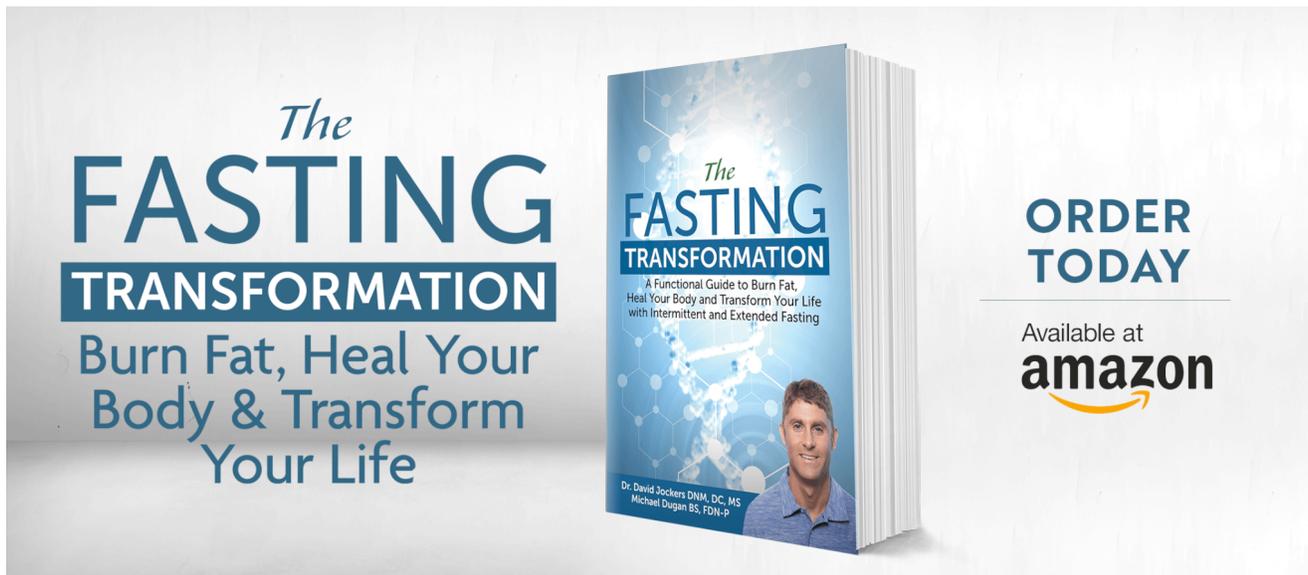


## The Fasting Transformation Book

---

I am super excited to introduce you to the book I have spent the past 18 months putting together. It goes into the most recent scientific research and strategies for implementing intermittent and extended fasting into your life.

I could not be happier with the content in this book that you can [review here](#). It is by far the best book on fasting the world has ever seen and I have read them all! It is now, my great honor to present this to you and I am deeply appreciative of your support!



## Final Thoughts on Immune Support

Our immune system protects us from various environmental challenges we encounter each day. It is important to think about what you can do to help take stress off of the immune system and allow it to function optimally.

In this article, I provided you with my top 12 immune support strategies to help protect your health and improve your body's wellness. If you want to work with a functional health coach, I recommend [this article](#) with tips on how to find a great coach. On our website, we offer [long-distance](#) functional health coaching programs. For further support with your health goals, just reach out—our fantastic coaches are here to support your journey.

**LONG-DISTANCE COACHING PROGRAM**

*"The doctor of the future will give no medication, but will interest his patients in the care of the human frame, diet and in the cause and prevention of disease."*  
Thomas Edison

We are on a mission to educate and empower as many people as possible to reach their full potential in life and health.

**Dr. David Jockers**  
DNM, DC, MS

**Melissa Nohr**  
JD, CHC

**Dr. Ivonne Boujaoude**  
ND, MS, MA, CFMP,  
CFSP, CGP

**Hampton Young**  
CFHC, CPT, BS

## Sources in This Article Include:

1. The immune system. Johns Hopkins Medicine. [Link Here](#)
2. How does the immune system work. NCBI. [Link Here](#)
3. Understanding the immune system: How it works. Science Education. [Link Here](#)
4. Overview of the immune system. National Institute of Allergy and Infectious Disease. [Link Here](#)
5. Kaminogawa S, Nanno M. Modulation of Immune Functions by Foods. Evid Based Complement Alternat Med. 2004 Dec;1(3):241-250. doi: 10.1093/ecam/neh042. Epub 2004 Oct 6. PMID: [15841257](#)

6. Salam N, Rane S, Das R, Faulkner M, Gund R, Kandpal U, Lewis V, Mattoo H, Prabhu S, Ranganathan V, Durdik J, George A, Rath S, Bal V. T cell ageing: effects of age on development, survival & function. *Indian J Med Res.* 2013 Nov;138(5):595-608. PMID: [24434315](#)
7. How to boost your immune system. Harvard Health Publishing. [Link Here](#)
8. Trends in causes of death among the elderly. Centers for Disease Control and Prevention. [Link Here](#)
9. How sleep affects immunity. Sleep Foundation. [Link Here](#)
10. Immune system boosters and busters. WebMD. [Link Here](#)
11. Sanchez A, Reeser JL, Lau HS, et al. Role of sugars in human neutrophilic phagocytosis. *Am J Clin Nutr.* 1973;26(11):1180-4. PMID: [4748178](#)
12. Godínez-victoria M, Campos-rodriguez R, Rivera-aguilar V, et al. Intermittent fasting promotes bacterial clearance and intestinal IgA production in *Salmonella typhimurium*-infected mice. *Scand J Immunol.* 2014;79(5):315-24. PMID: [24612255](#)
13. Alirezaei, M., Kembal, C. C., Flynn, C. T., Wood, M. R., Whitton, J. L., & Kiosses, W. B. (2010). Short-term fasting induces profound neuronal autophagy. *Autophagy*, 6(6), 702–710. PMID: [20534972](#)
14. Collier, R. (2013). Intermittent fasting: the next big weight loss fad. *CMAJ : Canadian Medical Association Journal*, 185(8), E321–E322. <http://doi.org/10.1503/cmaj.109-4437>
15. Amigo, I., & Kowaltowski, A. J. (2014). Dietary restriction in cerebral bioenergetics and redox state. *Redox Biology*, 2, 296–304. <http://doi.org/10.1016/j.redox.2013.12.021>
16. Martin, B., Mattson, M. P., & Maudsley, S. (2006). Caloric restriction and intermittent fasting: Two potential diets for successful brain aging. *Ageing Research Reviews*, 5(3), 332–353. <http://doi.org/10.1016/j.arr.2006.04.002>
17. Marinac, C. R., Sears, D. D., Natarajan, L., Gallo, L. C., Breen, C. I., & Patterson, R. E. (2015). Frequency and Circadian Timing of Eating May Influence Biomarkers of Inflammation and Insulin Resistance Associated with Breast Cancer Risk. *PLoS ONE*, 10(8), e0136240. <http://doi.org/10.1371/journal.pone.0136240>
18. Patterson, R. E., Laughlin, G. A., Sears, D. D., LaCroix, A. Z., Marinac, C., Gallo, L. C., ... Villaseñor, A. (2015). INTERMITTENT FASTING AND HUMAN METABOLIC HEALTH. *Journal of the Academy of Nutrition and Dietetics*, 115(8), 1203–1212. <http://doi.org/10.1016/j.jand.2015.02.018>
19. Rothschild J, Hoddy KK, Jambazian P, Varady KA. Time-restricted feeding and risk of metabolic disease: a review of human and animal studies. *Nutr Rev.* 2014;72(5):308-18. PMID: [24739093](#)
20. Cold Weather Outdoor Play Boosts Immune System! Pennsylvania University of Health. [Link Here](#)
21. Health benefits of grounding. [Link Here](#)
22. Aranow C. Vitamin D and the immune system. *J Investig Med.* 2011 Aug;59(6):881-6. doi: 10.2310/JIM.0b013e31821b8755. PMID: [21527855](#)
23. Yan F, Polk DB. Probiotics and immune health. *Curr Opin Gastroenterol.* 2011 Oct;27(6):496-501. doi: 10.1097/MOG.0b013e32834baa4d. PMID: [21897224](#)
24. Fields H. The Gut: Where Bacteria and Immune System Meet. Johns Hopkins medicine. [Link Here](#)
25. Hemilä H, Louhiala P. Vitamin C may affect lung infections. *J R Soc Med.* 2007 Nov;100(11):495-8. doi: 10.1177/014107680710001109. PMID: [18048704](#)
26. What are the best foods for vitamin C? Medical News Today. [Link Here](#)
27. Caulfield LA, and Black RE. Zinc Deficiency [Link Here](#)
28. Prasad AS, et al. Zinc in cancer prevention. *Nutr Cancer.* 2009; 61(6): 879-87. PMID: [20155630](#)
29. Hannuksela ML, Ellahham S. Benefits and risks of sauna bathing. *Am J Med.* 2001 Feb 1;110(2):118-26. PMID: [11165553](#)

30. Oosterveld FG, Rasker JJ, Floors M, Landkroon R, van Rennes B, Zwijnenberg J, van de Laar MA, Koel GJ. Infrared sauna in patients with rheumatoid arthritis and ankylosing spondylitis. A pilot study showing good tolerance, short-term improvement of pain and stiffness, and a trend towards long-term beneficial effects. Clin Rheumatol. 2009 Jan;28(1):29-34. PMID: [18685882](#)

31. Vatansever F, Hamblin MR. Far infrared radiation (FIR): its biological effects and medical applications. Photonics & lasers in medicine. 2012;4:255-266.

32. Crinnion WJ. Sauna as a valuable clinical tool for cardiovascular, autoimmune, toxicant- induced and other chronic health problems. Altern Med Rev. 2011 Sep;16(3):215-25. PMID: [21951023](#)

33. Fasting for 72 hours can reset the entire immune system. The Source. [Link Here](#)

**BRAIN REGENERATION GUIDE**

This image-rich 42-page, research-based guide can be read through in less than 1 hour and will show you the best strategies and protocols to regain control of your mood, memory and brain health.

**GET YOUR FREE GUIDE**

DRJOCKERS.COM  
SUPERCHARGE YOUR HEALTH

Was this article helpful?

YesNo