

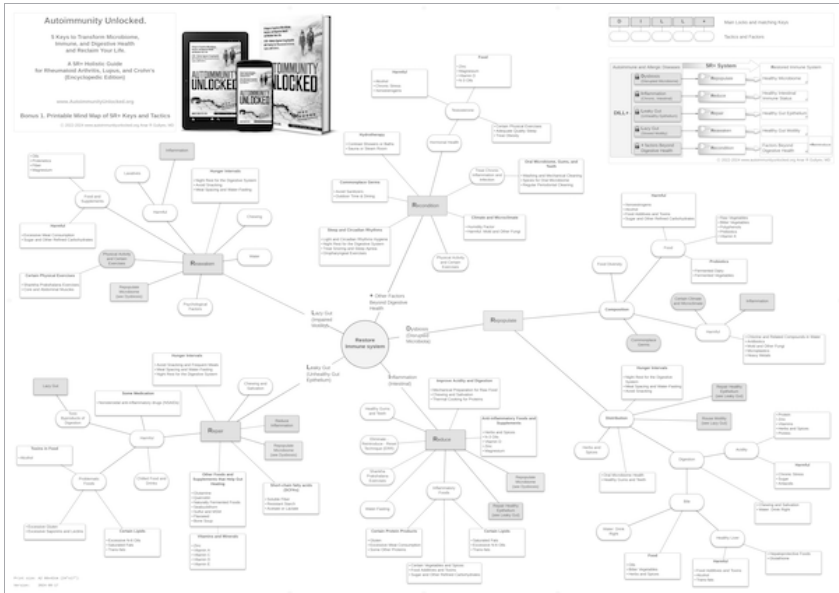
IMMUNE SYSTEM – THE GOOD, THE BAD, AND THE UGLY





+ BONUS 1. COMPLETE MIND MAP OF 5R+ KEYS AND TACTICS

Download the full-color, comprehensive mind map of All 5R+ Keys and Tactics: <https://bonus.autoimmunityunlocked.org/>





THE UGLY: AN AILING IMMUNE SYSTEM

DISEASES RELATED TO IMMUNE SYSTEM DISORDERS

Let's begin with the ugly side of autoimmune disease, which is just one kind of immune system dysfunction. Most patients suffer from one dominant condition, but it is seldom their only concern—related issues often follow. Immune system problems typically fall into one of these categories:

- Autoimmune diseases (Lupus, Rheumatoid Arthritis, Hashimoto Thyroiditis, etc.)
- Allergies
- Susceptibility to infections
- Increased risk of certain cancers

Though this book focuses mainly on autoimmune diseases, the method outlined for restoring the immune system can help with all of these conditions.

THE IMMUNE SYSTEM AND CANCER — A HIDDEN LINK

It is obvious that chronic inflammation exhausts the immune cells,

leading to a greater risk of infections. The link between the immune system and cancer, however, needs more clarification.

Cell mutations occur regularly in our bodies. A healthy immune system recognizes and destroys these mutated cells early. However, a compromised immune system is less efficient, missing the target and letting some cells escape and spread. This is an oversimplified explanation—there are various ways cancer hides from the immune system, which are beyond the scope of this book.

Fortunately, advancements in *immunotherapy* in oncology are showing great promise. This link between the immune system and cancer only solidifies my belief that the principles outlined in this book can greatly benefit those living with tumors and can be used as a preventative tool for those who want to reduce their risk significantly.

Lymphocytes are a type of white blood cell, a large family of immune cells with two main classes: T-lymphocytes control your body's immune response and directly attack and kill infected and tumor cells. B-lymphocytes produce antibodies—proteins that target viruses, bacteria, and toxins.

We know there is a strong link between cancer and chronic inflammation, and people with an autoimmune disease are more likely to develop malignancies. For example, rheumatoid arthritis (RA) patients have a higher risk of being diagnosed with lymphomas. You can see why, then, it is crucial to work on restoring a healthy immune system. True healing only begins when you address the root cause instead of masking your symptoms with immunosuppressants.

AUTOIMMUNE DISEASES — A MODERN EPIDEMIC

Autoimmune diseases are not only becoming more common, but they are also affecting younger people. Before the mid-20th century, cases of autoimmune disorders were relatively rare. Today, in the United States, about 8% of the population is officially diagnosed with an autoimmune disease, a rate higher than that of heart disease or cancer. And that doesn't account for undiagnosed cases. When including mild and

undiagnosed cases, the number is estimated to be as high as 16-22%. This means that at least one in five women and one in seven men are living with an autoimmune disorder.

There are many contributing factors. Genetics is one of them, but scientists are also unraveling the strong connection between the microbiome and immune health.

In this book, we take a holistic approach to restoring your microbial community and offer tactics to improve other areas affecting immune function. Since 70% of the immune system is located in the gut, many of our strategies target the gut microbiome and digestive health. They may require significant adjustments to your routine, but they can substantially improve your overall health. Considering roughly 20% of the population has some form of food intolerance, it is clear that some diet and lifestyle changes are necessary.

See also:

- Appendix 1 > Figures 2.1, 2.2, 2.3, 2.4

IMMUNE ILLNESS ON THE RISE

Historical data shows that food allergies and intolerances were rare up until the mid-20th century. Since the 1950s, however, rates of multiple sclerosis, Crohn's disease, type 1 diabetes, and asthma have soared by over 300%. I believe these trends are linked to changes in our microbiome, driven by modern lifestyle choices. In fact, the microbiome is the only human organ that has significantly changed over the past century, and it is closely linked to the immune system.

The impact of lifestyle becomes more apparent when we compare the prevalence of autoimmune diseases between Western nations and other countries. For instance, *ulcerative colitis*, a form of *inflammatory bowel disease (IBD)*, is more than twice as prevalent in Western Europe than it is in Eastern Europe (6.5 vs. 3.1 per 100,000 people). Similarly, in Turkey, the incidence of allergies among teenagers is 20 times lower than in Western Europe (4.2% in Germany vs. 0.15% in Turkey.) Unfortunately, as Westernized diets and lifestyles spread globally, we are seeing a rise in these conditions worldwide.

See also:

- Appendix 1 ➤ Figure 2.1, 2.2

WHEN THE BODY ATTACKS ITSELF

Autoimmune disease occurs when the immune system mistakenly attacks the body's own healthy cells—unable to distinguish them from foreign invaders. Depending on which organs and tissues are targeted, this can lead to one of the multitude of autoimmune diseases we now know. Here are some of the most common:

- Addison's Disease
- Celiac Disease (Gluten-Sensitive Enteropathy)
- Dermatomyositis
- Grave's Disease
- Hashimoto Thyroiditis
- Inflammatory Bowel Disease (IBD) (Crohn's Disease, Ulcerative Colitis, etc.)
- Multiple Sclerosis
- Myasthenia Gravis
- Pernicious Anemia
- Reactive Arthritis
- Rheumatoid Arthritis (RA)
- Sjögren Syndrome
- Systemic Lupus Erythematosus
- Type I Diabetes

According to the American Autoimmune Related Diseases Association (AARDA), there are over 150 recognized autoimmune diseases. A full list is available in *Appendix 1*. Although each disease requires specific treatments (as your doctor would have explained), the basic approach to restoring a healthy immune system through changing its ecosystem remains the same.

See also:

- Appendix 1 ➤ Figure 2.3, 2.4

THE BAD: WHY CONVENTIONAL TREATMENTS ARE LIMITED

The standard approach to treating autoimmune diseases is to suppress the immune system. But what happens when this strategy reaches its limit? Routinely increasing the dosage of immunosuppressants is not a sustainable solution—you can't shut down your immune system entirely. Also, prolonged use of these medications increases the risk of side effects. Since the drugs suppress proliferating cells, patients are likely to develop anemia, fertility problems, ulcers (especially with the use of NSAIDs), and more. Additionally, a weakened immune system makes you more vulnerable to cancer and infections, as mentioned previously.

The epithelium is a thin layer of cells covering body surfaces that acts as a protective barrier. The gut epithelium lines the inside of the digestive tract. It prevents harmful substances from entering the body while allowing the absorption of nutrients. It is an essential component of the digestive system and is crucial in maintaining overall health and wellness.

One critical issue is how these medications negatively affect the regeneration of the *intestinal epithelium*. The natural function of gut bacteria—an essential part of the immune system—is also disrupted,

worsening leaky gut and chronic inflammation and, in some cases, causing ulcers.

The main classes of drugs used to suppress the immune system in autoimmune diseases include: Nonsteroidal anti-inflammatory drugs (NSAIDs), Corticosteroids (hormonal drugs), Disease-modifying antirheumatic drugs (DMARDs).

You've probably read about your medication's side effects; maybe you've even experienced some. I remember being prescribed *Methotrexate*, *Hydroxychloroquine*, *Diclofenac*, *Meloxicam*, etc, when I was only 20 years old, fearing what my forties would bring. Thankfully, with God's help, I found a better way, and I've been medication-free for over 12 years.

Important: Do not change or stop any prescribed medications without consulting your doctor. The system in this book will gradually help rebuild your immune health and reduce disease activity. As your health improves, your doctor may consider reducing or discontinuing medication based on clinical and laboratory results. Collaboration with your doctor is critical; always be open about your plans. If needed, seek a second opinion from another doctor. This process is gradual—it may take months or even years. (It took me many years. However, being equipped with the 5R+ System roadmap, your journey should be faster.) The longer you have been sick, the longer it may take you to return to health, so be patient.

WHY THE AUTOIMMUNE PROTOCOL (AIP), ELIMINATION DIETS, AND PROBIOTIC SUPPLEMENTS ARE SHORT-TERM SOLUTIONS

Many people try natural healing methods but often see inconsistent and temporary improvements. The disease may "hibernate"—go into remission—only to "reawaken" when triggered by stress, an infection, or small changes to your diet. Most naturopathic approaches address only a few aspects of a multi-faceted problem—typically the most obvious ones, such as inflammation. When isolated, they yield unreli-

able results. What's truly needed is a strategic combination of multiple techniques working synergistically to attack the problem from every angle.

The most common naturopathic method is the Autoimmune Protocol diet (AIP). It works to a degree because it excludes foods known to cause sensitivities. However, it only addresses part of the intestinal ecosystem. Removing some of what you eat is not enough to eliminate inflammation when you are dealing with a disrupted microbiome, compromised epithelium, and poor *motility*. In fact, your body may start reacting to even more foods over time, and avoiding all of them is impossible. Unfortunately, this happens to many patients.

Gastrointestinal (GI) Motility refers to the muscle movements that help pass food through the digestive tract. At the same time, they ensure the absorption of essential nutrients, the removal of by-products and toxins, and the regulation of the colonization of the gut microbiome. The synchronized contraction of these muscles is called peristalsis.

In *Key 2, Inflammation: Reduce*, we'll explore why simply cutting out foods (as in the AIP) is not a long-term solution for reducing inflammation. Although the basic principles of the AIP are sound, they need to be part of a broader strategy for lasting results. That's why, in one of our key strategies, the AIP is combined with additional tactics to tackle inflammation effectively.

Probiotics are another useful tool for restoring your microbiome. Still, they won't work unless you address other factors like digestive juices, bile, inflammation, and motility as well. In some cases, like *small intestinal bacterial overgrowth (SIBO)*, taking pre- and probiotics can even be harmful if these other issues aren't resolved first. Probiotics are one of the tactics we use in *Key 1: Microbiome: Repopulate*. We'll cover how to include these in your food and maximize their efficacy. In addition, I share delicious recipes of naturally fermented foods. Check them out in *Bonus 2*.

Most advice focuses only on diet, eliminating foods that trigger

immune responses. They don't address the root cause of the problem, so the effects are temporary and limited. Meanwhile, immunosuppressive medications have detrimental side effects. What, then, is the answer?

We need to treat the **whole ecosystem** by addressing these three elements **simultaneously**:

- Immune system
- Digestive health
- Microbiome

In the next chapter, we will paint the big picture of this holistic approach.

THE GOOD: THE HOLISTIC WAY TO RESTORE IMMUNE HEALTH

IMMUNE CELLS IN YOUR BODY'S ECOSYSTEM

An *ecosystem* is the entire environment and its community—the landscape, climate, plants, and animals. If one thing changes, the rest changes, too. Think of a forest: if you cut down trees, different animals will inhabit the space. Remove the rabbits, and soon the foxes disappear. Add more rain, and the vegetation changes, causing some animals to become extinct while others thrive. I've oversimplified the concept, but you get the idea.

The same is true of your body—it is an ecosystem, and your immune system is an important part of it. Roughly 2 trillion lymphocytes—the immune cells that keep you healthy—coexist with about 39 trillion bacteria of your microbiome. They affect and interact with each other. Together, they rely on the "landscape and climate"—the work of all other organs and tissues and the type and quality of food you feed them. With this in mind, autoimmune disease is not your immune system attacking your body's cells without reason; it is a problem *in and of* the ecosystem. So, to overcome autoimmune disorders, you must restore the entire system.

As mentioned earlier, the three main areas to address in the body's ecosystem are: digestive health, the microbiota, and the immune system. The Keys 1 through 4 focus on repairing these central pillars.

Other factors influence the ecosystem as well, which we'll cover in *Key 5. Factors Beyond Digestive Health: Recondition*.

THE FIVE PILLARS OF A HEALTHY IMMUNE SYSTEM

One of the most important parts of the digestive system is its *epithelium*. Besides its digestive function, it plays a crucial role in maintaining the health and stability of the microbiome. The combination of an intact gut lining, healthy intestinal walls, effective digestion, and gut motility creates a stable environment for your immune system. In this balanced ecosystem, your microbiome and your immune cells can live together in harmony.

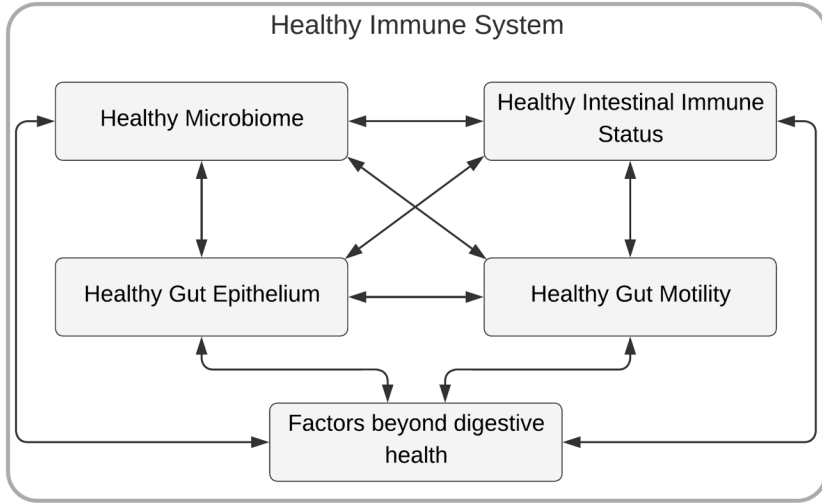
With a healthy gut as the foundation, I consider the five main factors for a healthy immune system to be:

- Healthy microbiome
- Healthy immune conditions in the intestine (no chronic inflammation)
- Healthy gut epithelium
- Healthy gut motility
- + Factors beyond digestive health

These components influence and support each other, as shown in Figure 2.5. Like an arch, all the bricks need to be in place for the structure to stay up. Also like an arch, once that happens, it's a powerful structure that can support other things.

Scientists have recently begun to see the *microbiome* as a unique organ in the human body. It is a community of microorganisms that continually challenge and compete with your immune cells, affecting how they function. Gut bacteria also synthesize substances we need for a healthy gut epithelium and proper gut motility.

A healthy *epithelium* is the barrier separating the outside of your body from your internal tissues. It prevents large molecules from entering your bloodstream and contacting your immune cells. The epithelial cells also secrete substances that support the microbiome's normal functioning.



© 2022-2024 Anar R Guliyev, www.autoimmunityunlocked.org

Appendix 1: Figure 2.5 - Healthy immune system factors supporting each other

Effective *motility*, the ability to move food and waste efficiently through the digestive system, is also essential. It prevents the buildup of harmful bacteria and toxins, supporting a healthy microbiome and gut lining.

We'll go into more detail about each of these aspects later.

Almost 70% of your immune system is located in the intestinal wall. Around 80% of your plasma cells are also found here. Therefore, the *immune status* of your gut defines the immune health of your entire body.

The activity level of the immune cells in the gut should be "just right"—busy but not overworked, combined with periods of relative rest and restoration. This balance of stress and rest is essential for every organ in your body. Just as your heart, muscles, and brain need time to recover after exertion, so does your immune system and gut epithelium. We'll cover more about this balancing act later.

See also:

- Appendix 1 > Figure 2.5

DILL+: LOCKS AND VICIOUS CYCLES

Just as all the parts of a robust immune system support each other, so the system can collapse when something goes wrong. A problem in one area can cause a chain reaction, leading to multiple issues. Instead of a collection of *healthy* factors, you end up with a group of harmful ones that feed into each other, creating vicious cycles.

The main factors in this breakdown are:

- **Dysbiosis** (Disrupted microbiota)
- **Intestinal Inflammation** (often subclinical, without symptoms)
- **Leaky Gut** (Unhealthy gut epithelium)
- **Lazy Gut** (Impaired motility)
- **+ Other Factors** (Beyond the digestive system)

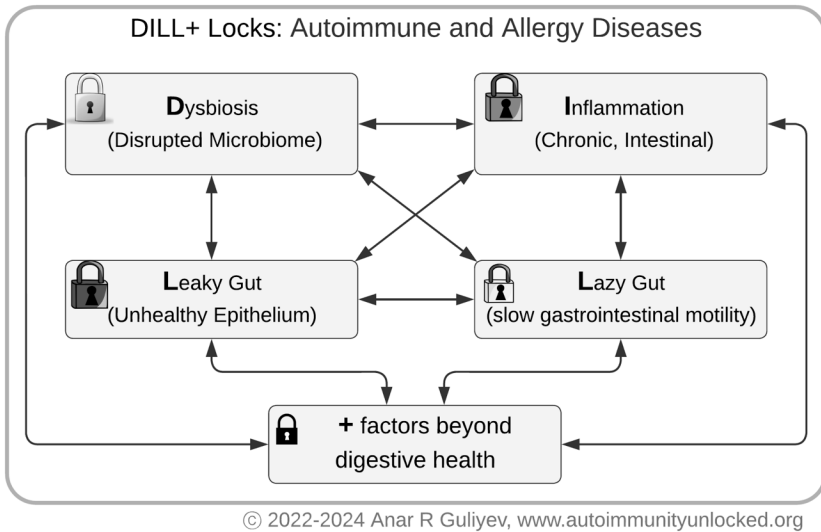
Dysbiosis is an imbalance in the microbial community (microbiome), where healthy bacteria are outnumbered by harmful ones, or the distribution of the bacteria shifts in an unhealthy way. Dysbiosis is most commonly reported as a medical condition in the gut microbiome.

I call the four main pathological factors **DILL**. The + (plus) refers to the additional minor factors unrelated to the digestive system. Together, these are the five locks you need to "open" to resolve your autoimmune disease.

The DILL+ system views the main components of disease as five "locks" that, when opened, free you from the "shackles" of the condition. If you have arthritis, it's easy to imagine autoimmune sickness as restraints holding you captive. I remember my inflamed joints from 20 years ago and how difficult it was to simply walk from room to room. It truly felt like being locked up.

Your microbiota—whether healthy or unhealthy—largely determine the state of your immune system. Harmful bacteria trigger immune responses, gradually changing your body's defense mecha-

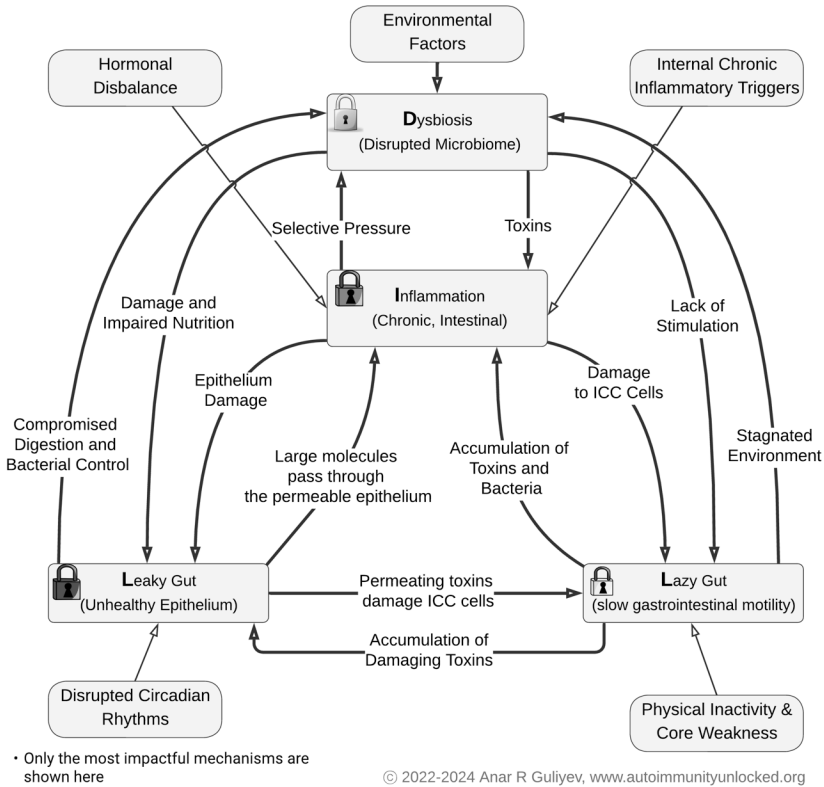
nisms, much like a chronic infection leads to ongoing inflammation. This relationship between the microbiome and immune cells is a two-way street; when one changes, so does the other. Just as animals in an ecosystem rely on each other for their survival needs, so do the microbiota and the immune system—their health and function are interdependent. We will discuss this and more in *Key 1. Dysbiosis: Repopulate.*



Appendix 1: Figure 2.6 - Sick immune system factors: DILL+ "locks"

As previously mentioned, most of the immune system resides in the gut, usually making digestive problems the primary concern. That's why 80% of the DILL+ system concentrates on food and digestive health. An exhausted immune system cannot effectively fight infections, allowing them to become long-term health issues. The result is chronic inflammation, which wears out the immune system, gut epithelium, and intestinal nerve cells, further slowing down motility. Most people with autoimmune diseases have a degree of symptomless, weak, but lingering inflammation in the digestive system. This creates a vicious cycle: a chronically fatigued immune system leads to impaired function, which results in continuous damage. We will cover this further in *Key 2. Inflammation: Reduce.*

Most Important Vicious Cycles of DILL+



Appendix 1: Figure 2.7 - Vicious cycles of DILL+

Increased gut permeability—often called *Leaky Gut*—together with lesions on the epithelium allows incompletely digested food molecules to be absorbed. This wreaks havoc on your immune system, especially as these conditions can go unnoticed for years. Such close contact between immune cells and undigested particles triggers an abnormal immune response, leading to food sensitivities and ongoing inflammation. With increased permeability, chronic gut inflammation becomes an issue that can progress to the rest of the immune system. In addition, a damaged epithelium cannot control the digestive process well nor function as an effective barrier. Together, these factors contribute to adverse changes in the microbiome, leading to further epithelial damage. Once again, we are back to the vicious cycle of inflammation,

dysbiosis, and slowed motility. We will talk about this in *Key 3. Leaky Gut: Repair*.

An inflamed gut struggles to move its contents effectively, leading to destructive stagnation. Your gut always contains some toxins—by-products of food digestion and microbial activity. An unhealthy microbiome means even more toxins. That's why active motility is vital. Slower movement causes food, toxins, and harmful bacteria to stay in the gut longer, worsening the problems. Certain bacteria grow excessively in areas they don't belong. The prolonged contact of toxins with the gut lining and immune cells triggers more irritation and inflammation. These effects further disrupt microbial populations, fueling the vicious cycle of inflammation, bacterial overgrowth, and continued damage. We'll discuss this in *Key 4. Lazy Gut: Reawaken*.

You can see how each of the DILL+ parts affects the others. One defective component impacts the rest, creating a cycle of problems.

“ **Chronic inflammation goes hand-in-hand with microbiome changes, gut lining damage, and decreased motility.**

That is why fixing just one issue won't work—you must address them all at the same time. This holistic approach is usually missing in various healing systems. True healing requires a comprehensive strategy; there is no single miracle food you can eat or avoid to solve everything.

See also:

- Appendix 1 > Figure 2.6, 2.7

DANGERS BENEATH THE SURFACE

You might live with these conditions for years without noticeable symptoms. It's like a car with a minor oil or transmission leak—it runs fine for a while, so you don't worry about repairs. But over time, major components wear out, and one day, your car won't start. Similarly, this is how many people develop autoimmune diseases as they age. The

underlying issues go unnoticed for years until something finally breaks.

That’s why I recommend this system even for generally healthy people. The 5R+ principles are not a medication to take only when sick; they are a way to restore and maintain a healthy body, with a focus on immunity, the microbiome, and digestive health.

5R+: UNDERSTANDING THE HEALING STRATEGY

We’ve discussed what the DILL+ 'locks' are, but how do you unlock them? This book gives you the 'keys' to address each lock through the 5R+ method. See Appendix 1, Table 2.8, for how the key strategies match the problems.

Locks (DILL+)	Keys (5R+)
Dysbiosis	Repopulate the microbiome with healthy bacteria
Inflammation	Reduce inflammation
Leaky gut	Repair the intestinal epithelium
Lazy gut	Reawaken intestinal motility
+ Other pathological factors	Recondition factors beyond the digestive system
	<p><i>As Your Healing Progresses:</i></p> <p>+ Reintroduce (gradually) healthy foods removed during the active healing phase</p> <p><i>These steps lead to:</i></p> <p>Restored immune system</p>

Appendix 1: Figure 2.8 - DILL+ "locks" and corresponding 5R+ "keys"

All of this should be done simultaneously, not one step at a time.

“ Because all DILL+ factors are interconnected, you cannot change one without changing the others.

Many natural healing systems don't work because they target only part of the ecosystem—it's like changing the animals in a habitat without altering the plants or climate. The ecosystem always reverts to its previous state.

See also:

- Appendix 1 > Table 2.8

5R+ IN A NUTSHELL

Throughout this process, we will work to restore your microbiome and immune system concurrently. These are the factors we'll address:

- **Key 1. Dysbiosis: Repopulate the Microbiome.** This involves improving two key aspects: the *composition* of bacterial species and the *distribution* of their populations throughout the digestive system.
- **Key 2. Inflammation: Reduce Inflammatory Processes in the Intestine.** By eliminating the chronic load on gut immune tissue, we allow it to restore normal function and structure.
- **Key 3. Leaky Gut: Repair Leaky Gut and Unhealthy Gut Epithelium.** Increased permeability, or "leakiness," is just one of many issues with an unhealthy gut lining that we must address.
- **Key 4. Lazy Gut: Reawaken Active Motility.** This focuses on promoting healthy muscle and nerve function in the digestive system to ensure efficient movement, removal of toxins, and maintenance of a healthy environment.
- **Key 5. Factors Beyond the? Digestive System: Recondition.** We address multiple factors, including environmental conditions, hormones, physical exercise, sleep and circadian rhythms, hydrotherapy, and oral health.

Each key strategy involves various tactics; some will overlap as they are relevant to several keys. Therefore, we'll explain certain tactics thoroughly in one section and refer to them again in another. This ensures you understand the *why* and *how* of each aspect before moving on to the practical *what*: to-do list. In my coaching, I have found that people heal more effectively when they understand how things work, building a new lifestyle rather than just following a list of rules. When you understand what is going on "under the hood," it becomes easier to make the necessary changes.

The exciting part is that once you have repaired all these factors, you can reintroduce some foods you had to cut out during the active healing process (like nuts, in my case). Plus, a healthy microbiome is more forgiving, allowing for the occasional cheat day.

This system requires time and discipline, although nothing extreme or overwhelming. It's about adopting an unusual healthy lifestyle. Best of all, unlike many other systems, you don't need to buy any expensive products. This is not a commercial system—I am not selling anything!