

# YOUR PERSONAL ROOT CAUSE ANALYSIS FROM



**COMPLEX  
HEALTH  
SOLUTIONS**

## RootFinder<sup>TM</sup> Analysis Report

produced on Tue May 25 2021 for info@complexhealthsolutions.com

### **Demographics:**

**Gender: Female, Age: 50-59**

**Smoking: None/never, Alcohol: 1 drink/day**

**Invoice #1621905304411**

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For more information about Complex Health Solutions and a variety of topics that might be of interest and relevance to your condition, please visit our website complexhealthsolutions.com. If you have any questions or feedback, please contact us at: [basic-report@complexhealthsolutions.com](mailto:basic-report@complexhealthsolutions.com)

**Thank you for completing the RootFinder™ questionnaire and congratulations on taking the first step on your path to a healthier you!**

The body is an interconnected system that requires balance for optimal function. When any part of this system is out of balance, your body sends out signals that you experience as symptoms.

Analyzing the combination of symptoms that you reported, our expert RootFinder tool, backed by over a decade of the most current scientific research and clinical evidence to-date, has identified the following most likely root causes of your current health issues.

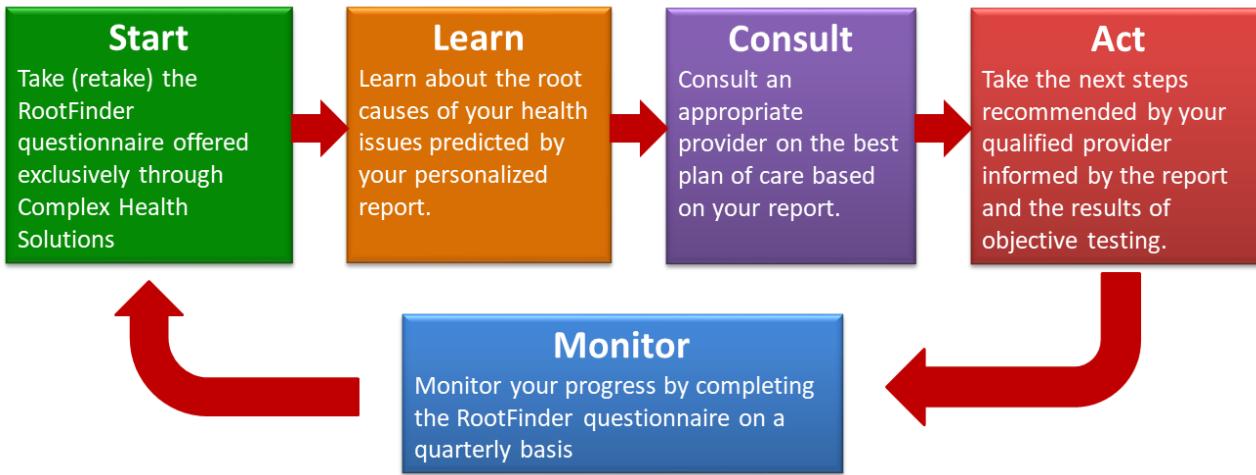
Whenever possible, it is best to verify these as active problems through objective testing. This personalized report will help you work with your healthcare provider to identify potential tests you may wish to pursue. As you work with your provider to address the true root causes of your health concerns, it will be critical to repeat the RootFinder questionnaire to monitor your improvement over time and adjust your treatment plan accordingly.

It is important to understand that the goal of Complex Health Solutions is to identify and prioritize potential root causes that are not typically pursued comprehensively or at all by mainstream practitioners. Sometimes, the #1 root cause in your report is not the area that needs the most attention, and each root cause is interrelated, requiring a coordinated approach to your treatment plan. Therefore, this report is not a substitute for working with a qualified healthcare professional, because it does not provide you with any medical diagnoses, advice or management of your medical condition. However, the results from this report empower you to regain control of your health and arm you with important insight into your current health concerns so that you are better prepared to seek meaningful and effective medical care.

## **How does Complex Health Solutions determine your Root Causes?**

We have harnessed the power of computing and advanced software algorithms to create an analytical engine. This engine takes into account over one hundred symptoms, their relationship with various root causes, and information about the strength of such relationships. Under the supervision of our founder, Andrew Lenhardt, M.D., our team of professionals curates the information and the knowledge provided to our analytical engine, on an on-going basis. Our technology experts ensure that these on-going updates are used by the engine correctly and completely.

# The Path to a Healthier You



**Armed with new knowledge from this report, you can learn more about the root causes of your health issues.**

**Next, consult a healthcare provider to establish a plan of care.**

Some general considerations when choosing a practitioner to support you in your journey to a healthier you:

It is important to note that most primary care physicians are not familiar with functional medicine or focus on addressing the root causes of an illness. An appropriate and qualified practitioner who could help you might come from a variety of backgrounds including a medical doctor (M.D.), a doctor of osteopathic medicine (D.O.), a naturopathic doctor (N.D.), a doctor of philosophy (Ph.D.), a registered pharmacist (R.Ph.), a doctor of chiropractic medicine (D.C.), a licensed acupuncturist (LAc), and others.

We encourage you to research as much as possible to try to find someone with experience in managing the potential root causes identified by our analysis. For some of these areas, it may be more challenging to find a person knowledgeable in that particular area. Even so, it is strongly recommended that you find a qualified practitioner to help you navigate this complicated path.

While remote visits are increasingly popular, we encourage you to try and find someone local if possible, as there is no substitute for a visit in person. Some sources that can help find someone local to you:

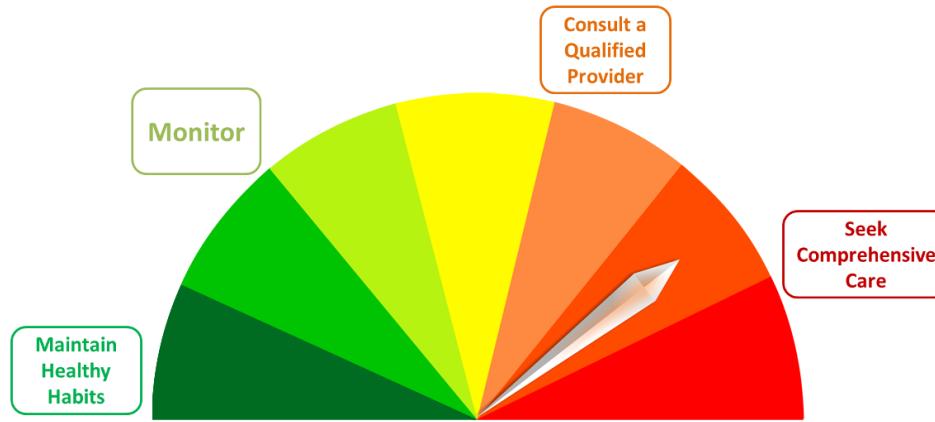
- The Institute for Functional Medicine: <https://www.ifm.org/find-a-practitioner/>
- The Functional Forum: <https://functionalforum.com>
- Internet search for “functional provider/practitioner”, “naturopathic provider/practitioner”, or “holistic provider/practitioner”

# ILLNESS INDEX™



The RootFinder analysis has calculated a score that represents the severity of your chronic health issues. Your current Illness Index Score is:

## ILLNESS INDEX: 51



This score ranges from 0 to 100 and can be used as a reference point going forward to assess whether the management plan recommended by your healthcare practitioner is showing benefit and, if so, to what extent. It can be highly beneficial to complete this survey every 3-4 months to monitor your progress and work with your provider to adjust your care plan as needed.

Additionally, there is a foundation of health and wellness we all need to pursue. Some of the most important determinants of health include:

- Strong relationships with others and connections to the world
- Maintaining a healthy, varied, nutrient-dense diet
- Regular exercise
- Stress management, adequate sleep and mindfulness
- Weight management
- Avoidance of toxins through your food, environment, smoking and minimizing the intake of alcohol



# ROUTE CAUSE ANALYSIS RESULTS

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## TOP FIVE LIKELY ROOT CAUSES

The analysis completed through the RootFinder has predicted the following as your top 5 most likely underlying issues. These issues require the opinion of a qualified healthcare professional who will put them in the context of your symptoms and other relevant factors. Objective testing is often necessary as a next step to clarify the extent to which these underlying issues are active problems that require management.

Along with the predicted root cause, the RootFinder determines the Likelihood of each root cause as it relates to your personal situation. These Likelihood indicators fall into five distinct categories: Very Unlikely, Unlikely, Possible, Likely and Very Likely. The table below is a sorted list of your most likely root causes in the decreasing order of likelihood.

Rank	Root Cause	Likelihood
#1	Chronic Oxalate Problems	Very Likely
#2	Low Thyroid	Likely
#3	Mast Cell Activation	Likely
#4	Low DHEA	Likely
#5	Low Cortisol	Likely

### Next Steps

The higher your Illness Index and/or the Likelihood of a root cause, the greater the need for you to discuss this potential underlying root cause with a qualified healthcare professional who understands the subject matter, and take appropriate action.



# Root cause #1 Chronic Oxalate Problems (Likelihood: Very Likely)



*RootFinder* predicts that you might have an issue with Oxalates.

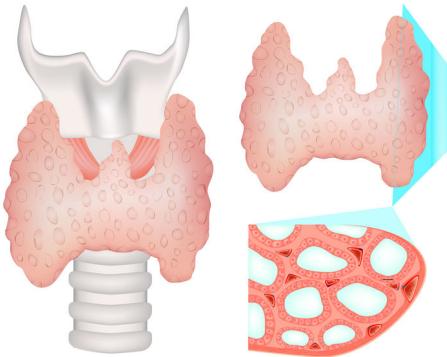
The traditional medical world links oxalates to the most common form of kidney stone, but research shows that oxalates can also cause or contribute to a much wider group of chronic health problems including interstitial cystitis of the bladder, Hashimoto's thyroiditis, fibromyalgia and chronic kidney disease. Oxalates are compounds found in many healthy foods including spinach, swiss chard, beets, potatoes, sweet potatoes, black tea, tomatoes, rhubarb, cola, cocoa/chocolate, nuts, peanuts and others. They can build up in tissues of the body triggering inflammation in that tissue. Also, oxalates are negatively charged so they tend to bind up positively charged minerals like potassium, magnesium, calcium and iron. This causes mineral deficiencies in tissue that can impair normal function.

Besides high dietary intake, there are other reasons why people can have problems with oxalates including poor hydration, genetic susceptibility and increased absorption via a "leaky gut". Oxalates are also a byproduct of the mitochondria within the cells and a deficiency of vitamin B6 can increase our natural endogenous production. Certain mold, yeast and fungal species also produce oxalates so fungal overgrowth can also play a role.

The **next step** to evaluate this potential root cause would be to:

- Review previous urine analysis (U/A) reports for evidence of inflammation (without the positive culture showing an active urinary tract infection) and especially to see if any U/A reports show the presence of calcium oxalate crystals. There are many other tests that can be done to clarify this complex subject.
- Should you be advised to follow a Low Oxalate Diet, we suggest that you check out our free handout, [Low Oxalate Dietary Guidelines](#) from Personal Remedies.

## Root cause #2 Low Thyroid (Likelihood: Likely)



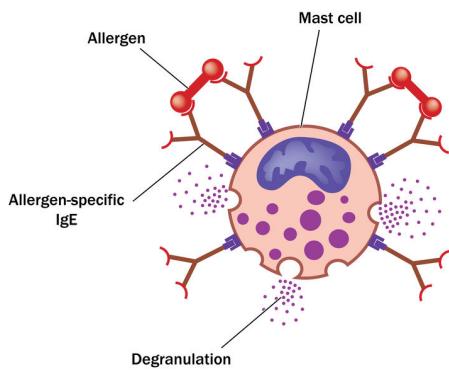
*RootFinder* predicts that you might have an issue with Low Thyroid. This can also be referred to as hypothyroidism, an underactive thyroid or thyroid hormone deficiency.

Thyroid function is a complex topic that involves the brain, thyroid gland, liver, immune system and the gastrointestinal system. Standard work-up by mainstream practitioners often focuses on the thyroid stimulating hormone (TSH) level in the blood. Many other laboratory tests are typically required to determine if the thyroid is playing a role in a person's chronic health issues. One of the most important questions for a person with hypothyroidism is whether they have Hashimoto's autoimmune thyroiditis. Some of the most common signs and symptoms of thyroid hormone deficiency include chronic fatigue, unexplained weight gain, puffiness and fluid retention, hair thinning, feeling cold with a low basal body temperature, dry skin and/or constipation out of proportion to age and lifestyle.

The **next step** to evaluate this potential root is to:

- Many times the TSH blood test is done as the only test to check for an underactive thyroid. To get a more complete picture of your thyroid hormone status, it is preferred to at least add a free T4 and free T3 level to laboratory testing. For many, those individual thyroid hormone levels need to be on the higher side of the normal range for optimal health.

## Root cause #3 Mast Cell Activation (Likelihood: Likely)



*RootFinder* predicts that you might have an issue with the Mast Cell Activation.

Mast cells represent the first line of defense of the immune system. They populate any part of the body that can interact with the outside world including skin, mucous membranes, the gastrointestinal tract, the lining of the bladder and the external genital tissue. The majority of those with chronic, complex health issues likely have dysfunctional, hyperactive mast cells that can release up to 200 or more different chemicals (cytokines) including histamine, heparin, enzymes and prostaglandins that mediate part of the inflammatory process. Because the mast cells are found in so many types of tissue and can release so many different chemicals, there are a wide variety of signs and symptoms. Some of the more classic, common symptoms include: allergic issues that are out of proportion to the trigger and difficult to control; unexplained itching or hives with elements of dermatographism; chronic abdominal pain and other gastrointestinal symptoms with minimal correlation to specific foods; flushing to the face; chronic headaches and low blood pressure. Postural orthostatic tachycardia syndrome (POTS) is likely mediated by mast cells. Limbic system dysfunction and mast cell disorders often coexist.

The **next step** to evaluate this potential root cause would be:

- A blood histamine level and a serum tryptase level. Much of the time, these labs would be falsely normal for those with ongoing mast cell activation. There are other more sophisticated tests available and often the working diagnosis of mast cell activation is made on clinical grounds rather than based on test results.
- Should you be advised to follow a Low Histamine Diet, we suggest that you check out the following app, [low histamine](#) diet app from Personal Remedies

## Root cause #4 Low DHEA (Likelihood: Likely)



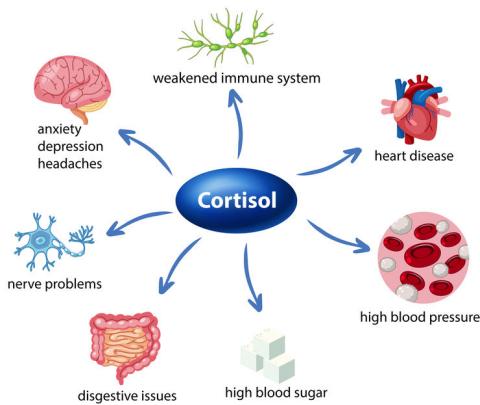
*RootFinder* predicts that you might have an issue with Low DHEA (dehydroepiandrosterone), a form of male hormone or androgen.

DHEA and DHEA-S are precursors to other hormones including testosterone and certain forms of estrogen, but also have action themselves within the body. There are potential benefits of DHEA in terms of mood, energy, bone density with other impacts on quality of life and long-term health.

The **next step** to evaluate this potential root cause would be to:

- Check a DHEA and/or DHEA-S level in the blood. DHEA is a precursor to testosterone, so checking testosterone levels would likely have value as well.

## Root cause #5 Low Cortisol (Likelihood: Likely)



*RootFinder* predicts that you might have an issue with Low Cortisol. Cortisol is a steroid hormone produced by the adrenal glands and is often described as the "stress hormone."

Cortisol, as with other hormones, should not be considered good or bad. Stress, caffeine, lack of sleep, excessive amounts of vigorous exercise, stimulant medications for ADD and other factors can all affect adrenal function and cortisol output. Additionally, it is possible to exhibit symptoms of both high and low cortisol at the same time. Cortisol serves a variety of important functions in the body and helps regulate blood sugar, metabolism and inflammation. If a person has inadequate production of cortisol, they tend to be sluggish with brain fog and often feel worse after vigorous exercise.

The **next step** to evaluate this potential root cause might be to:

- Get a salivary cortisol profile from a lab like Great Plains. Checking a random or even a fasting blood cortisol level is of minimal value because they don't provide enough information about the adrenal cortisol output.

# About Complex Health Solutions

Complex Health Solutions (CHS) is dedicated to improving the lives of those with complex health issues, a group that continues to be drastically underserved. Developed by a physician and enabled by AI technology, the RootFinder tool from CHS can identify the most likely root causes of a patient's symptoms and illnesses – in minutes. CHS is the first in its industry to offer Functional Medicine professionals this unique and powerful tool to perform their job more accurately and more efficiently, saving time, money and frustration for providers and patients alike.

**About Andrew Lenhardt, MD:**



Andrew Lenhardt, MD, is a board-certified family physician working in the field of integrative and functional medicine. He has served as an Assistant Professor of Medicine at Tufts Medical School for over 10 years. He also works with nurse practitioner students from Endicott College and Yale University. He is the author of two books available on Amazon: *The Best of All Worlds – A Family Doctor's Path to Integrative Medicine* and *Emotional Intelligence in a Complex World*.

Dr. Lenhardt's primary goal is to target the root causes of illness and provide patients with the tools to achieve optimal health. With a focus on prevention rather than treatment, he incorporates the principles of functional medicine, naturopathy, ancestral health, nutrition and longevity in caring for his patients. Intensive research has been done over his 20+ year medical career to understand the underlying root causes that explain chronic illness. That ongoing work is the basis for the RootFinder tool available at [complexhealthsolutions.com](http://complexhealthsolutions.com). You can also watch informative videos at the Complex Health Solutions Youtube Channel and review blogs and protocols at [drlenhardt.com](http://drlenhardt.com).

Connect with us: [Andrew@ComplexHealthSolutions.com](mailto:Andrew@ComplexHealthSolutions.com) & on social media!

