

BACK TO THE BASICS - **WHAT IS FUNCTIONAL MEDICINE?**

Your Weekly Newsletter

by Dr. Nick Sieveking

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Real Patient Stories That Explain Everything

Nearly every week over the past year, we've shared newsletters covering plastic surgery, aesthetic medicine, and—more often than not—functional medicine. We've discussed hormones, inflammation, gut health, nutrition, longevity, weight loss, and dozens of other topics.

But there's one question we've never really answered:

What exactly is functional medicine?

More importantly...

How is it different from the way most medicine is practiced today?

Before I share 2 real patient stories that illustrate the power of this approach, I'd like to explain how we practice functional medicine at **The Clinic of Ageless Solutions**.

What Is Functional Medicine?

Functional medicine is a patient-centered, science-based approach that focuses on identifying and treating the **root causes** of disease rather than simply managing symptoms.

For example, if you visit your primary care physician because your blood pressure has suddenly become elevated, you may leave with an effective prescription medication to lower it. That medication may be entirely appropriate and sometimes lifesaving.

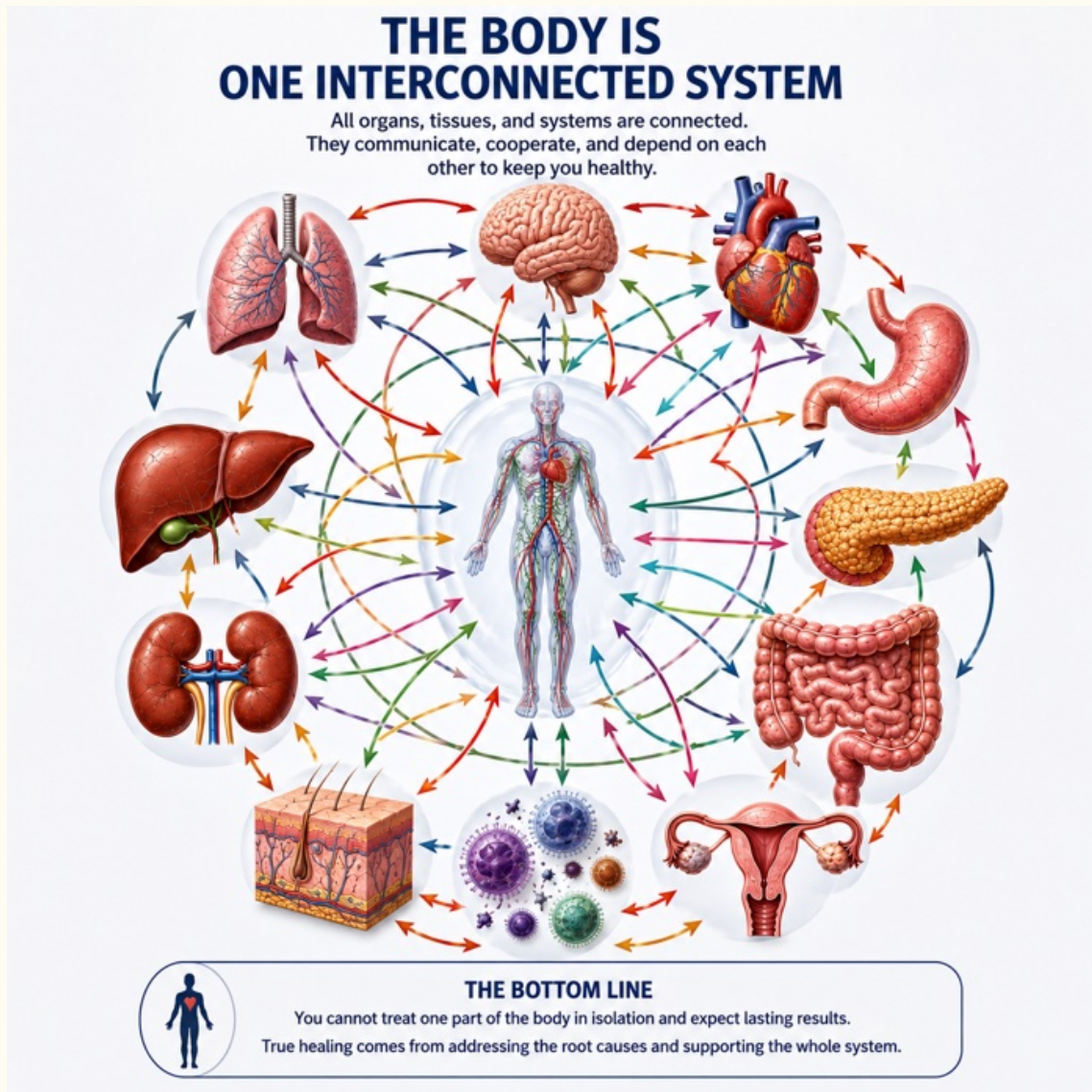
But many patients naturally ask another question:

"Why did my blood pressure become high in the first place?"

Could it be related to weight gain? Insulin resistance? Poor sleep? Sleep apnea? Chronic stress? Elevated cortisol? Nutritional deficiencies? Hormonal changes? Inflammation? Excess alcohol? Environmental toxins? Genetics? Often, the answer isn't just one thing—it's a combination of several factors interacting over time.

Functional medicine asks those deeper questions.

Rather than looking at the body as a collection of unrelated organs, it views the body as an interconnected system.



Genetics, nutrition, sleep, exercise, stress, gut health, environmental exposures, hormones, and lifestyle all influence one another. When one system begins to fail, others frequently follow.

The goal is to identify these underlying imbalances before they progress into chronic disease.

Sometimes correcting just one or two foundational problems—improving sleep, restoring hormone balance, correcting nutrient deficiencies, healing the gut,

reducing inflammation, or improving insulin sensitivity—can positively affect multiple body systems simultaneously. Patients often experience improvements in energy, mood, cognition, body composition, cardiovascular health, immune function, and overall longevity.

Functional medicine combines the best of conventional medicine with evidence-based lifestyle medicine. We use traditional laboratory testing, advanced biomarkers, imaging when appropriate, and detailed discussions about nutrition, exercise, sleep quality, stress, toxin exposure, gastrointestinal health, and other lifestyle factors to understand why someone became ill—not simply what diagnosis they have.

The result is an individualized treatment plan that may include nutrition, exercise, targeted supplements, bio-identical hormone optimization, stress management, sleep improvement, prescription medications when appropriate, and—most importantly—a partnership with the patient. Unlike traditional medicine, where prescriptions and surgery often become the primary treatment, functional medicine requires patients to become active participants in their own health. That partnership is often what produces the most meaningful and lasting results.

My Journey into Functional Medicine

My journey into functional medicine began about 15 years ago.

After four years of medical school followed by six years of general surgery and plastic surgery training, I began practicing plastic surgery in Nashville in 2000.

Like most plastic surgeons, I love solving structural problems using precision and an aesthetic common sense.

Whether it's straightening a crooked nose, rejuvenating tired eyes, restoring youthful facial contours, tightening an aging neck, repairing abdominal changes after pregnancy, or restoring breast shape and proportion, I enjoy combining anatomy, surgical judgment, and meticulous craftsmanship to help patients look like the best version of themselves.

It is an incredible privilege to do this work, and I remain deeply grateful that my patients entrust me with it every day.

But around 2010, I began to feel there was something more I could offer.

Patients came to me wanting to look younger, healthier, and more vibrant. Surgery could certainly transform what they saw in the mirror—but what if I could also transform how they actually felt?

What if I could help revitalize their energy, sharpen their thinking, optimize their metabolism and hormones, reduce inflammation, prevent chronic disease, and give them more healthy years to enjoy the results we created together?

I began asking myself a simple question: What if I could restore my patients' health on the inside as effectively as I enhance their appearance on the outside? After all, I became a physician and surgeon to diagnose and correct underlying problems—not just to change how people look, but to help them become healthier, happier, and whole.

That single question completely changed the direction of my career.

What began as countless hours of reading medical literature and teaching myself functional medicine eventually evolved into a formal academic pursuit. I spent the next three years studying functional and regenerative medicine, ultimately becoming board certified in the field.

Today, I consider plastic surgery and functional medicine to be complementary disciplines.

Plastic surgery changes what people see.

Functional medicine changes how people feel.

When combined, they allow us to help patients become healthier, stronger, more energetic, and more confident—from the inside out.

A Special Note

It's important to emphasize that the vast majority of patients who undergo cosmetic surgery in my practice do **not** first complete our Functional Medicine program at Ageless Solutions. In most cases, their concerns are appropriate, their expectations are realistic, and they are excellent candidates to proceed directly with surgery.

However, there are times when I meet a patient whose symptoms, medical history, physical examination, or overall appearance suggest that significant underlying inflammation, hormonal imbalance, metabolic dysfunction, or nutritional deficiencies may be contributing to their concerns. In those situations, I believe it is my responsibility to look beyond the surface.

Rather than proceeding immediately to surgery, I may recommend a focused functional medicine evaluation with appropriate laboratory testing to assess key biomarkers. The goal is not to delay or deny surgery—it's to determine whether correcting underlying health issues first will help the patient achieve a better surgical result, recover more quickly, and, most importantly, feel as good on the inside as they hope to look on the outside.

Sometimes surgery is exactly the right answer. Sometimes optimizing a patient's health first leads to an even better outcome. My responsibility as a physician is to recommend the approach that I believe will provide each individual patient with the safest procedure, the best result, and the greatest long-term benefit.

The following two patient stories demonstrate exactly what I mean.

Patient Story #1: Looking Beyond the Surgical Consultation

One of the most common misconceptions about functional medicine is that it replaces traditional medicine or surgery. It doesn't. In our practice, it often makes surgery **safer, more effective, and more durable** by optimizing the patient's health before entering the operating room.

This patient is a perfect example.



The Initial Consultation

A healthy-appearing 45-year-old mother of three (one delivered by Cesarean section), standing 5'6" and weighing 155 pounds (BMI ~ 25), came to our office seeking cosmetic surgery. She exercised regularly with a personal trainer, ate what she described as a healthy organic diet, and consumed alcohol only two to three times per week.

Her goals were straightforward. She wanted to lose the final 10–15 pounds she had struggled with for years and was interested in liposuction, a tummy tuck, and breast rejuvenation.

During our consultation, however, another story began to emerge.

She complained of:

- Persistent fatigue
- Low energy
- Decreased sex drive
- Dry, crepey skin
- Thinning hair
- Difficulty losing weight despite consistent exercise and healthy eating
- Acid reflux and bloating after certain meals requiring daily Prilosec®

Her blood pressure measured **130/85 mmHg**.

On examination, she demonstrated exactly what most plastic surgeons would consider an excellent surgical candidate:

- Localized fat deposits of the hips, flanks, abdomen, and axilla
- Moderate abdominal skin excess with stretch marks
- Rectus diastasis following pregnancy
- A well-healed Cesarean scar
- Moderate breast ptosis with loss of skin elasticity

From a purely surgical standpoint, she was an excellent candidate for:

- Liposuction
- Abdominoplasty with rectus diastasis repair
- Mastopexy (breast lift)

Twenty years ago—and even in many practices today—the consultation would have ended there.

Surgery would have been scheduled.

Instead, we asked a different question.

Why was a woman who exercised, ate well, and appeared highly motivated still unable to lose weight, lacking energy, and noticing significant changes in her skin, hair, and overall sense of well-being?

That question led us to investigate further.

What the Laboratory Evaluation Revealed

Comprehensive laboratory testing uncovered several important abnormalities.

Abnormal Finding	Clinical Significance
Elevated hs-CRP (3.2 mg/L)	Ongoing systemic inflammation
Elevated TSH with low Free T4	Hypothyroidism
Positive TPO antibodies	Hashimoto's autoimmune thyroiditis
Low estradiol and progesterone with FSH of 60	Menopausal transition
Very low total and free testosterone	Contributing to fatigue, low libido, decreased muscle maintenance, and poor skin quality
Negative tTG-IgA	Celiac disease unlikely
Food sensitivity testing suggesting reactivity to wheat-associated proteins	Possible non-celiac wheat sensitivity contributing to reflux and bloating

Root-Cause Diagnoses

Instead of seeing one cosmetic problem, we identified several underlying medical conditions contributing to her symptoms:

- Hashimoto's thyroiditis with hypothyroidism
- Perimenopause/early menopause
- Chronic systemic inflammation
- Possible non-celiac wheat sensitivity

None of these conditions would have been corrected with liposuction or a tummy tuck.

The Treatment Plan

Before committing to surgery, we agreed to optimize her overall health.

Treatment included:

- Thyroid hormone replacement for hypothyroidism
- Bio-identical hormone replacement therapy using estrogen, progesterone, and testosterone
- Low-dose naltrexone to help address autoimmune activity and systemic inflammation
- A 60-day elimination of wheat-containing foods to evaluate for non-celiac wheat sensitivity

Results After Only 60 Days

The transformation was remarkable.

- Blood pressure improved from 130/85 to 120/70 mmHg => no need for antihypertensive pharmaceuticals
- Weight decreased by 10 pounds

- Sleep significantly improved
- Irritability diminished
- Brain fog largely resolved
- Energy increased substantially
- Libido improved
- Acid reflux completely resolved
- She discontinued Prilosec®
- Overall quality of life improved dramatically

Did She Still Need Cosmetic Surgery to Achieve Her Goals?

Yes.

Optimizing her internal health did not eliminate loose abdominal skin, stretched abdominal muscles, or breast ptosis resulting from pregnancy and aging.

She still desired—and remained an excellent candidate for—a tummy tuck, breast lift, and selective liposuction.

The difference was that she approached surgery in a much healthier physiologic state.

By addressing inflammation, thyroid dysfunction, hormonal deficiencies, and possible food sensitivities before surgery, we improved her overall health while positioning her for:

- Better wound healing
- Lower surgical risk
- Greater energy during recovery
- Improved skin quality
- Better long-term maintenance of her surgical results

This illustrates one of the core principles of functional medicine.

After 60 days of getting this patient on a more healthy trajectory, she successfully completed her cosmetic surgical procedures. Now she looks amazing and feels incredible!

Plastic surgery can reshape the outside. Functional medicine helps optimize the inside. Together, they allow us to achieve results that neither approach can accomplish alone.

Patient #2: “I Work Out Four Days a Week...So Why Can’t I Lose My Belly?”

Patient Profile

A 56-year-old male attorney presented requesting liposuction of his abdomen and love handles.

He reported exercising regularly, performing weight training and CrossFit three to four days per week, yet despite his efforts he could not lose the “tire” around his waist. His goal was to lose at least 20 pounds, but he felt he had reached a plateau and simply did not have time to spend additional hours in the gym because of his demanding legal practice.

He worked long hours and admitted that he ate restaurant meals four to five nights each week. He consumed two to three alcoholic drinks on most evenings. He was divorced with two children in college.

His primary care physician had prescribed:

- A statin drug for elevated LDL cholesterol
- Lisinopril for mild hypertension

Despite exercising regularly, he complained of:

- Chronic fatigue
- Low libido
- Difficulty losing weight
- Increasing abdominal fat

Physical Examination

- **Age:** 56 years
- **Height:** 6'0"
- **Weight:** 225 pounds
- **BMI:** 30.5 kg/m²
- **Blood Pressure:** 125/75 mmHg
- **Pulse:** 88 bpm

Although he possessed good muscle mass in his chest, shoulders, and thighs, his body composition told a different story.

His face appeared full and puffy. He demonstrated marked **central obesity** with excessive **visceral abdominal fat**, while surprisingly having relatively little subcutaneous fat over the abdomen. Moderate lipodystrophy/excess fat was present over the hips and love handles.

This is an important distinction.

The fat located around his internal organs (visceral fat) is metabolically active and strongly associated with:

- Insulin resistance
- Fatty liver disease
- Chronic inflammation
- Cardiovascular disease
- Low testosterone

Unlike superficial fat, visceral fat cannot be removed with liposuction.

Laboratory Evaluation

Test	Result	Optimal Goal	Interpretation
ALT	30 U/L	<30	Early fatty liver/metabolic dysfunction
AST	45 U/L	<30	Liver inflammation; alcohol and/or fatty liver likely contributing
hs-CRP	2.2 mg/L	<1.0	Increased systemic inflammation
Fasting Glucose	108 mg/dL	<90	Prediabetes
Hemoglobin A1c	5.9%	<5.5%	Prediabetes
Fasting Insulin	12 µIU/mL	3–5	Significant insulin resistance
HOMA-IR	2.8	<1.5	Insulin resistance
Total Testosterone	400 ng/dL	Variable	Appears “normal” but incomplete assessment
Free Testosterone	4.5	Age- and assay-dependent	Clinically deficient
LDL Cholesterol	90 mg/dL	<100	Acceptable, but incomplete risk assessment
Lipoprotein (a)	80 mg/dL	<30	Markedly elevated inherited cardiovascular risk
ApoB	120 mg/dL	<80	High atherogenic particle burden

The Functional Medicine Perspective

Many plastic surgeons would have simply scheduled liposuction of the love handles.

Unfortunately, that approach completely misses the bigger picture.

From the outside, this gentleman appeared to be someone who exercised regularly and simply could not eliminate stubborn fat. But when you listened carefully to his history and evaluated his laboratory studies, a very different story emerged.

He had nearly every hallmark of **metabolic syndrome**:

- Prediabetes
- Significant insulin resistance
- Chronic systemic inflammation
- Elevated liver enzymes consistent with fatty liver disease
- Excess visceral fat

- Low free testosterone
- Elevated ApoB and Lipoprotein(a), placing him at increased cardiovascular risk

This patient was not suffering from a lack of liposuction.

He was suffering from metabolic dysfunction.

Removing fat from his love handles would not treat insulin resistance, fatty liver disease, inflammation, or cardiovascular risk.

In my opinion, proceeding directly to cosmetic surgery would have addressed his appearance while ignoring the underlying disease process that created it.

He simply was **not yet an ideal surgical candidate**.



Our Treatment Plan

1. Reduce Cardiovascular Risk

Rather than focusing solely on LDL cholesterol, we addressed his overall cardiovascular risk profile.

- Transitioned from statin therapy to **ezetimibe** after discussing benefits and potential risks in the context of his symptoms
- High-quality **omega-3 fish oil**
- Coronary artery calcium (CAC) scan to assess for existing coronary artery disease

2. Reverse Insulin Resistance

We focused on treating the underlying metabolic disease.

- Eliminated processed and ultra-processed foods
- Reduced restaurant meals
- Emphasized whole foods, lean protein, vegetables, and high-fiber complex carbohydrates
- Significantly reduced alcohol consumption
- Initiated the latest GLP **Retatrutide** for weight loss and improvement in insulin sensitivity

3. Optimize Hormones

Although his total testosterone measured 400 ng/dL, his **free testosterone was profoundly low**, which correlated well with his symptoms of fatigue, reduced libido, difficulty losing fat, and impaired exercise recovery.

Treatment:

- Oral bioidentical testosterone replacement therapy (**KYZATREX®**)

The Results

Within several months, the transformation was remarkable.

Cardiovascular Health

A coronary artery calcium scan demonstrated only early plaque formation, allowing continued aggressive risk-factor modification without evidence of advanced coronary disease.

The patient was able to stop the blood pressure medication Lisinopril.



Body Composition

The patient lost **25 pounds**.

More importantly, he experienced a dramatic reduction in **visceral abdominal obesity** and waist circumference.

Although he still had some residual fullness of the love handles, he now had much less metabolically dangerous internal fat.

Liver Health

Reduced alcohol consumption and weight loss normalized his liver enzymes, suggesting significant improvement in fatty liver disease.

Hormonal Health

His free testosterone increased from 4.5 to 12, and he reported:

- Increased energy
- Improved libido
- Greater gains from resistance training
- Increased lean muscle mass
- Improved overall well-being

Inflammation and Metabolic Health

Marker	Before	After
Weight	225 lb	200 lb
Fasting Glucose	108	90
Fasting Insulin	12	5
Hemoglobin A1c	5.9%	5.6%
HOMA-IR	2.8	1.5
hs-CRP	2.2	1.0
Lipoprotein(a)	80	58
ApoB	120	79
Free Testosterone	4.5	12

The Take-Home Message

This case perfectly illustrates why functional medicine and plastic surgery should work hand in hand.

Instead of rushing into surgery, we first corrected the internal metabolic dysfunction that was driving his outward appearance.

By treating insulin resistance, reducing inflammation, improving liver health, optimizing hormone balance, and helping him lose visceral fat, he achieved many of his aesthetic goals without an operation.

Only after restoring his metabolic health did he become an excellent candidate for liposuction of his residual love handles.

Interestingly, after losing 25 pounds, he also developed facial and neck skin laxity and ultimately requested a face and neck lift—procedures that could now be performed in a significantly healthier patient with a lower surgical risk and a with optimal aesthetic results.

SPECIAL PROMO:

Receive your first injection of Retatrutide (GLP-3) FREE*

**Medical eligibility questionnaire must be completed.*

Offer expires August 6, 2026.

Call to Schedule!

STAY TUNED!

Be on the lookout for next week's newsletter, *"Red Light Therapy: Real Medicine, Modern Hype - or Both? Part 1."*

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Sieveking Plastic Surgery

1200 Old Hillsboro Rd., B2,
Franklin, TN 37069
info@sievekingplasticsurgery.co
m
615-321-1010

[Unsubscribe](#)

Ageless Solutions

615-678-7784