

Functional Diagnostic Medicine- The Next Paradigm Shift in Healthcare

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Dear Friends,

As you know, healthcare is on the verge of a major paradigm shift! The world is on the brink of witnessing an important revolution in the history of modern medicine!

As you read this special report, you will soon discover that you are very fortunate to have found a doctor who is on the cutting edge of the most advanced form of healthcare.

Americans are Getting Sicker-What's the Problem?

Every year, the number of Americans who seek out alternative healthcare increases. The latest study on consumer health spending found that more than 37% of Americans use alternative medicine regularly (according to a 2006 survey conducted by Thomson Medstat, a business of The Thomson Corporation).

People are spending billions of dollars on Chiropractic Physicians, Naturopathic Physicians, acupuncturists, and so on. Yet disease rates are increasing. Obesity is on the rise. Diabetes, auto-immune diseases, and cancer rates are soaring. The willingness of people to seek non-drug solutions is a step in the right direction, but the paradigm needs to shift before people will see a true improvement in their health.

Doctors must focus their attention on the right places. Here are a few of the areas that need to be addressed in every patient.

- 1. The role of what we call "The Toxic Load" in the development of chronic disease.**
- 2. An understanding of Biochemical individuality.**
- 3. The concept that medicine and health care must be patient focused and not disease focused**

Principle #1 The Total Load



As a man drove through the mountains one day, he stopped now and then to load rocks into the trunk of his car.

With each new rock his car got slower and slower, and sagged lower and lower.

Stopping again to toss in yet another rock, all of a sudden--BAMMM!!!--his suspension gave way.

The gas tank slammed to the pavement, sparks flew, gasoline ignited. By the time the authorities arrived on the scene nothing remained of the man's car but twisted metal and smoking ashes.

Rock (Stressors)

You are like that man's car.

You go through life accumulating various kinds of "rocks" (stressors), knowingly or not, that place a growing burden on your body's ability to function normally.

These are "toxic" stressors. In other words, anything that taxes the normal functioning of your body and pushes you away from optimal health can

rightly be called a toxin.

Along the road through life the **total load of toxic stressors** can become too much.

Physical breakdown occurs.

A major health crisis sets in--cancer and other degenerative conditions like heart attack, stroke, diabetes, Alzheimer's, multiple sclerosis, chronic fatigue syndrome, arthritis, allergies, and many, many other such crises.

They are conditions in which the normal functionings of the body's various systems, working together to fight disease and produce health, have **become compromised**.

Too many "rocks" in the trunk.

Understand the **Total Load** and you will *crack the code* to solving many chronic diseases.

Total load is the term for the build up of things that are disagreeable to your body's ability to function normally. You may be able to handle some of them, but as toxic stressors pile up, eventually your body can't keep pulling the load. It is hard to tell how much each factor is affecting you until you address it.

Let's assume each rock represents a *physiological, biochemical, metabolic, emotional and/or structural load* on the human body.

How many of the following are you suffering with? If you really want to turn your health around, you better be certain your physician carefully investigates the following.



- ✚ Environmental toxins
- ✚ Digestive/absorptive dysfunctions
- ✚ Emotional stress
- ✚ Spinal-neurological aberrations
- ✚ Dysglycemia
- ✚ Oxidative stress
- ✚ Poor detoxification
- ✚ Mitochondria dysfunction
- ✚ Viral, bacterial and parasitic pathogens
- ✚ Drug reactions
- ✚ Heavy metal toxicity
- ✚ Adrenal dysfunction
- ✚ Circulatory abnormalities
- ✚ Mineral Imbalances
- ✚ Sugar Handling Imbalances
- ✚ Allergies/food sensitivities
- ✚ Thyroid dysfunction
- ✚ Immune system imbalances
- ✚ Intestinal hyperpermeability
- ✚ Hormonal imbalances
- ✚ And more....

Understand the **Total load** and you will be in the unique position to appreciate the power of functional medicine in solving cases that have been considered unsolvable.

*"It is only when the total body burden of mental and physical stressors has been sufficiently reduced," observes Sherry Rogers, M.D., "that the body is able to reverse damages from years of overload, and heal....the lower the total load, **the higher your total health.**"*

Let's illustrate this by looking at a sample case:






CASE #1- Irritable Bowel Syndrome

23 year old female presents with alternating constipation and diarrhea. She complains of frequent stomach aches and feels bloated after meals. She is diagnosed with Irritable Bowel Syndrome (IBS)

Disease Specific Approach		Patient Specific Approach
Traditional Western Medicine Approach	Alternative Medicine Approach	Functional Medicine Approach
<p>Treat the symptoms by using drug therapy:</p> <ul style="list-style-type: none"> • Zelnorm • Levsin <p>Physician also recommended anti-depressants to deal with the psychosomatic nature of IBS.</p>	<p>Treat the symptoms by using alternative medicine.</p> <p>It is very difficult to effectively treat IBS by just treating the symptoms. However, the alternative "treatment" of IBS would include the following:</p> <ul style="list-style-type: none"> • Lactase • Caraway oil 	<p>Get to the underlying cause of why the patient has Irritable Bowel Syndrome by ruling out the following with functionally oriented diagnostic tools of assessment:</p> <ol style="list-style-type: none"> 1. Hypochlorhydria (low acid output in the stomach)- IBS has been referred to as a condition of hypochlorhydria extending to the colonic mucosa. 2. Rule out the parasitic pathogen Blastocytis hominis, & Dientamoeba fragilis with a thorough Ova and parasite test. 3. Comprehensive Digestive Stool Analysis (CDSA) to assess enzymatic output, especially lactase, and to provide a thorough functional assessment of the whole GI system. 4. Complete blood chemistry and CBC analysis with thyroid panel. 5. Lysosome testing to differentiate IBS from inflammatory bowel diseases. 6. Intestinal hyperpermeability. 7. Gluten panel to rule out celiac disease <p>Treatment is based on the functional diagnostic testing and is designed to treat the underlying cause and restore balance to the body.</p>

Commentary:

The most widely used method for the treatment of IBS consists of the symptom suppression model via a prescriptive or natural agent. Consideration of a well documented GI pathogen and the appropriate intervention to eradicate this bug is an *intelligent approach* to cracking this IBS health challenge.

- 1: [Ustun S, Turgav N.](#) Related ↓
 [Blastocystis hominis and bowel diseases]
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- 2: [Stark D, van Hal S, Marriott D, Ellis J, Harkness J.](#) Related ↓
 Irritable bowel syndrome: a review on the role of intestinal protozoa and the importance of their detection and diagnosis.
 Int J Parasitol. 2007 Jan;37(1):11-20. Epub 2006 Oct 12.
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- 3: [Tungtrongchitr A, Manatsathit S, Kesitchaiwat C, Ongrotchanakun J, Munkong N, Chinabutr P, Leelakusolvong S, Chaicumpa W.](#) Related ↓
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- 4: [Yakoob J, Jafri W, Jafri N, Khan R, Islam M, Beg MA, Zaman V.](#) Related ↓
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 Am J Trop Med Hyg. 2004 Apr;70(4):383-5.
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- 5: [Hussain R, Jafri W, Zuberi S, Baqai R, Abrar N, Ahmed A, Zaman V.](#) Related ↓
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What People Really Want from Their Health Provider

Discerning health consumers are ready and HUNGRY for real answers to chronic disease such as fibromyalgia, heart disease, arthritis, auto-immune diseases, obesity, etc..

As you know, traditional medicine focuses on end-point treatments and rarely gives thought to the **underlying biochemical glitches** that may lead to the disease in the first place. This outdated model is what got most of us interested in alternative medicine—we sensed a better way was possible. The trouble is, most alternative doctors and training programs use the exact same model, only substituting natural substances and techniques for drugs and invasive procedures.

Everywhere you turn you read and view advertisements on this or that drug that provides **symptomatic relief** for XYZ disease.

Got acid reflux? Take Nexium

Got constipation? Take some natural herbal remedy

Got high blood pressure? Take a calcium channel blocker

Got anxiety? Take Valerian Root



This is the **epitome** of cookbook healthcare.

This Isn't Working

It doesn't matter if the treatment is a prescriptive drug or some natural supplement or herb, the focus is still on seeking **temporary symptomatic relief** and **NOT** *identifying the underlying cause of the illness.*

Most physicians, whether they are medical physicians, naturopathic physicians and yes, even progressive chiropractic physicians, spend the majority of their time diagnosing and treating the gross appearance of disease.

This is akin to continually putting out fires without looking for the arsonist who is setting the fires.

Hmmm...

Symptoms are Signals

Just like the red warning light in your car that flashes when there is a problem with your engine, a physical symptom is a signal telling you that an underlying health problem needs to be corrected.

Treating a symptom without uncovering the real cause is like placing a piece of black tape over the blinking red warning light. The consequences of this action are obvious, an expensive engine overhaul.

Unfortunately, as we are finding out all too well in our patients, ignoring these chronic symptoms eventually leads to a serious illness.

THE ANSWER IS HERE

Through functional diagnostic medicine, physicians are able to help their patients restore normal body function, not only relieving symptoms but halting and reversing the progression towards life-threatening diseases such as arthritis, fibromyalgia, diabetes, auto-immune diseases, heart diseases, osteoporosis and many other chronic degenerative illnesses.

Unlike well meaning traditional and alternative physicians who tend to focus on what drug or herb to use to treat a symptom, doctors who practice functional diagnostic medicine give *serious thought* to identifying the physiological glitches that has led to the patient's failed health.

New Model in 21st Century Medicine

Functional medicine is the new health model of the 21st century. Functional medicine has been defined as "the field of healthcare which employs assessment and early intervention into the improvement of physiological, cognitive/emotional, and physical functioning."

Forward thinking practitioners who embrace functional diagnostic medicine commonly **ask different questions** about how to better treat the chronically ill patient who otherwise slips through the cracks of conventional medical diagnosis and treatment.

Principle #2 Biological Individuality

No two people are alike. Look around you and you will see a variety of sizes, shapes, personalities and levels of health. These represent the outward manifestations of internal chemical differences.

In other words, the physical, mental and emotional qualities expressed by people are a reflection of their individual body chemistries; and different body chemistries mean different treatment requirements to maintain metabolic and physiological balance. This in turn will enable individuals to fully express their true health potential.

When it comes to the **one size fits all** recommendation of medicine and nutrition, remember the old adage, what benefits one person may be another's poison.

Understanding the concept of **biological individuality** gives you a unique way to look at healthcare.

The next time you read an article or hear a lecture promoting a particular food as a "health food," certain to work wonders for the health and wellbeing of every man, woman and child, ignore it. Or, if a particular vitamin or mineral is being touted as good for this or that disease or condition, ignore it as well.

Any two people are likely to have a dramatically different reaction to a food, drug or to a nutritional supplement. The sad truth is, in both the lay and professional literature, **biological individuality is rarely considered**. All we are offered is vitamin B12 to cure this, the herb **saw palmetto** to cure that, and so on.

Functional Medicine testing verifies the concept of biological individuality. It sees that no two people, even if they present the same disease or condition, are alike.

As a Functional Medicine practitioner the simple message to get through to your patients is that **different people have different causes for the same exact health condition**.

Since everyone is different, we need a comprehensive diagnostic analysis of evaluating each individual's physiological biochemical function.

Unlike traditional medical testing that evaluates "end-point" disease, the strength of functional medicine tests lies in the fact that not only can it aid you in the detection of aberrant physiological processes but is a powerful way to help you identify pre-clinical disease entities before the disease becomes symptomatic.

This makes Functional Diagnostic Medicine not only great for early detection but stand alone as "**real**" Preventive Medicine.

Functional Medicine testing is in a **league of its own** and as more people around the world recognize the power of this new field of medicine, the demand for doctors specializing in it will go up exponentially.

Let's illustrate this by looking at another sample case:

CASE #2- Hypertension

55 year old female presents to clinic with high blood pressure. Her BP is 178/92 and has been elevated for over 3 months.

Disease Specific Approach		Patient Specific Approach
<p>Traditional Western Medicine Approach</p> <p>Treat the symptoms by using drug therapy:</p> <ul style="list-style-type: none"> • Diuretics- ACE inhibitors • Calcium-channel blockers • Beta blockers 	<p>Alternative Medicine Approach</p> <p>Treat the symptoms by using alternative medicine.</p> <p>The following is a typical protocol for treating hypertension with alternative medicine:</p> <ul style="list-style-type: none"> • EFAs: linoleic acid, fish oils, flax oil • Co Q 10 - 50 mgs BID or TID • Vitamin C - at least 2 grams a day • Magnesium - start at 400 mg QD • Potassium as diuretic 400-3000 mg QD, • Carnitine - 500 mg TID • Pantetheine - 900 mg QD • Taurine - 500 mg TID <p>This style of treatment just substitutes natural medicine for drug therapy.</p>	<p>Functional Medicine Approach</p> <p>Get to the underlying cause of why the patient has hypertension by ruling out the following with functionally oriented diagnostic tools of assessment:</p> <ol style="list-style-type: none"> 1. Renal insufficiency 2. Liver/Biliary Stasis 3. Heavy metal toxicity esp. cadmium 4. Adrenal dysfunction <ol style="list-style-type: none"> a. Hyper or Hypo 5. Circulatory abnormalities <ol style="list-style-type: none"> a. Arteriosclerosis b. Atherosclerosis 6. Mineral Imbalances <ol style="list-style-type: none"> a. Sodium/Potassium b. Calcium/ Phosphorous/ Magnesium 7. Sugar Handling Imbalances <ol style="list-style-type: none"> a. Dysinsulinism b. Diabetes c. Reactive hypoglycemia 8. Allergies/food sensitivities 9. Thyroid dysfunction <p>Once the underlying cause has been identified, create a treatment protocol that will treat and correct the imbalance in the body. This may in fact utilize a number of the nutritional factors on the left but they will be applied intelligently and with a respect for biochemical individuality.</p> <p>This approach will not only deal with the hypertension but will also "treat" the cause of the hypertension so the patient will return to a state of physiological balance. She will not need to be on long term treatment.</p>

Commentary:

The high blood pressure epidemic is treated via prescriptive and natural agents. The

real proof of success is what would happen to our high blood pressure patient if she stopped taking the prescribed treatment. In all likelihood the blood pressure would skyrocket. What if the underlying cause was thoroughly assessed using signs and symptoms analysis, physical exam techniques, blood chemistry analysis, and other advanced diagnostic tools such as a urine heavy metal screening or a liver detoxification panel? You would quickly find out what was causing the problem!

What if the hypertension was due to the existence of cadmium toxicity? And what would happen if the toxicity was eliminated via clinically proven detoxification methods? Not only would the blood pressure come down to normal but the patient would feel much better. We have now treated the *patient* and not her "disease" and we've brought her back onto the road to health and wellness. This is the beauty of functional medicine. *Pure genius!*

12: [Satarug S, Nishijo M, Ujjin P, Vanavanitkun Y, Moore MR.](#)



Cadmium-induced nephropathy in the development of high blood pressure. *Toxicol Lett.* 2005 May 16;157(1):57-68. PMID: 15795094 [PubMed - indexed for MEDLINE]

13: [Sirivarasai J, Kaojarem S, Wananukul W, Deechakwan W, Srisomeram P.](#)



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14: [Martynowicz H, Skoczynska A.](#)



[Cadmium toxicity. Cadmium and hypertension] *Pol Arch Med Wewn.* 2004 Feb;111(2):243-9. Review. Polish. No abstract available. PMID: 15230239 [PubMed - indexed for MEDLINE]



The Fatal Flaw of Most Scientific Studies

The failure to recognize biological individuality is the **fatal flaw** of most scientific studies referenced by traditional and even alternative medical journals. The statistically significant group whose condition benefits from

either a prescriptive or natural agent under study must have some quality which distinguishes it from the unresponsive group. This **unrecognized quality** is clearly revealed by Functional Medicine testing to be a difference in **body chemistry and other physiological aberrations**.



The Frustrated Doctor

When clinicians employ empirical methods they are directed in their therapeutic efforts **only by the subjective response of the patient**.

When you employ Functional Medicine methods you are directed in your therapeutic efforts by **objectively measured changes in your patient's body chemistry**.

Traditional medicine and many well meaning alternative health practitioners essentially practice a **disease-specific approach** to patient care.

In other words, it is known that a specific disease or condition has a certain probability of responding to a particular therapy.

The therapy is implemented and the patient's subjective response is observed. This approach may be a success, or may prove to be in error, in which case a second clinical trial is prescribed, and so on.

Principle #3 Patient-Specific vs. Disease-Specific

The **disease-specific approach** is the road taken by virtually all traditional

and alternative physicians and other healthcare specialists.

The goal apparently is to match each of the thousands of named diseases and conditions with some prescriptive, over-the-counter medication and/or some natural agent like a vitamin or herb.

There is a better approach – Functional Diagnostic Medicine

Whatever value empiricism has in the practice of medicine, it is neither the simplest nor the most effective way to manage the multitudes of diseases afflicting people around the world. For health professionals who are serious about helping patients get well, there is only one way that makes absolute sense and that is the **patient-specific approach**. This is what sets the Functional Diagnostic Medicine system apart from the standard approach to traditional diagnosis and treatment.

Functional Diagnostic Medicine offers a viable alternative to disease-specific empiricism, namely, a patient-specific scientific analysis.

The **patient-specific approach** embodied within the field of functional medicine allows doctors and other health professionals to do what has yet to be achieved with the traditional diagnostic model and that is *genuine science-based solutions* for the chronically ill.

Functional Medicine can be compared to hitting a *bull's-eye*.



Functional Medicine is a patient and *doctor's dream* to the mystery of solving some of the most challenging health conditions.

While most traditional and alternative health professionals claim to help with symptoms with vitamins, herbs and prescriptive agents, practitioners of the functional medicine model are working on a **unique and novel diagnosis platform**.

They understand that merely treating the outward expression of disease does not cut it and pride themselves in **cracking the case** and getting to the **heart** of the health condition. This is *true health care at its finest* and this is what Functional Medicine is all about!



If you enjoy *throwing mud on a wall* and seeing what sticks, then you may want to continue using the disease specific model.

However, on the other hand, if you desire to *step up and gain renown* as a medical detective, the **patient specific approach** is your calling.

The fascinating thing about Functional Medicine is that physicians will find themselves treating two patients having identical symptoms with **entirely different treatment programs**.

For instance, two patients with apparently the same osteoarthritis might test out as having entirely different physiological, biochemical and metabolic abnormalities predisposing them to arthritis. Anyone who tries an "arthritis treatment" on these two patients would necessarily fail in at least one of the cases. The reason for failure obviously is that no consideration is given to what might be the causative factors.

Functional Medicine has proved that discovering the underlying physiological, biochemical and metabolic glitches unique to the **patient** is one way to restore and maintain health, regardless of what symptoms the patient presents.

Let's illustrate this by looking at one last sample case:

CASE #3- Enlarged Prostate

67 year old male is diagnosed on digital rectal exam to have an enlarged prostate. He presented to clinic complaining of hesitancy of urination, post-voiding dribbling, and a sensation of incomplete emptying.

Disease Specific Approach		Patient Specific Approach
Traditional Western Medicine Approach	Alternative Medicine Approach	Functional Medicine Approach
<p>Treat the symptoms by using drug therapy:</p> <ul style="list-style-type: none"> • Proscar • Hytrin • Flomax 	<p>Treat the symptoms by using alternative medicine.</p> <p>The following is a typical protocol for treating BPH with alternative medicine:</p> <ul style="list-style-type: none"> • Zn up to 150-200 mg/day x 2 months then 50-10 mg/day • Pumpkin seeds • Herbal treatment with Saw palmetto, nettles and pygeum africanum • Lycopene • L-Alanine <p>This style of treatment just substitutes natural medicine for drug therapy.</p>	<p>Get to the underlying cause of why the patient has an enlarged prostate by ruling out the following with functionally oriented diagnostic tools of assessment:</p> <ol style="list-style-type: none"> 1. Screening blood tests to evaluate the kidneys, the liver, blood lipids, and electrolytes using normal and functional reference ranges 2. Mineral deficiencies, especially zinc 3. Comprehensive evaluation of Estrogen, Progesterone and Testosterone levels. 4. Evaluate for prostate cancer risk with advanced cancer markers <p>Treatment is based on the functional diagnostic testing and is designed to treat the underlying cause and restore balance to the body.</p>

Commentary:

The common approach to the treatment of BPH consists of the ill-fated symptom suppression model via a prescriptive or natural agent. Consideration of the physiological aberration of hormones, the presence of mineral deficiencies and the possibility of prostate cancer and the appropriate intervention to correct these aberrations is a *smart approach* to solving the BPH riddle.

Food for Thought

Estradiol increases a genetic product (Bcl-2) that leads to cell proliferation and delay in apoptosis, both of which increase cancer risk. Progesterone suppresses Bcl-2 action and increases another genetic control product (p53) that slows cell proliferation and restores proper apoptosis, both of which decrease cancer risk. Testosterone (but not the DHT) stops cancer cell growth.

□ 3: [Bartsch G, Rittmaster RS, Klocker H.](#)



[Dihydrotestosterone and the role of 5 alpha-reductase inhibitors in benign prostatic hyperplasia]
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Dihydrotestosterone and the concept of 5alpha-reductase inhibition in human benign prostatic hyperplasia.
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PMID: 10765065 [PubMed - indexed for MEDLINE]



Is Your Doctor a Scientist or a Gambler?



The gambler is hoping the odds are in his favor. Maybe they will and maybe they won't.

The health professional who follows the disease specific approach to patient management is in a similar boat. The treatment may work or it may be an utter failure. There is a degree of gambling involved and a high degree of uncertainty on the outcome of the recommended treatment. Yes, there is a chance of success but there is also a chance of failure.

The scientist carefully evaluates the data and formulates a clinical decision on what path to take to achieve a successful outcome.

There is not a disease in this world that you cannot help with Functional Medicine. In other words, while Functional Medicine may not be the sole answer to a patient's problem, every single sick patient that walks through your door has physiological, biochemical and metabolic abnormalities that are weakening them and predisposing them to disease. By correcting these glitches via Functional Medicine you will be getting directly to a major cause of their disease, and in doing so, improve not just their complaint but all other areas of health.

If, however, you take the traditional disease specific approach of giving a patient some popular remedy or drug of the month for whatever ails him, you are going to at best give him a temporary symptomatic boost, while actually exacerbating his body chemistry imbalances over time. In the long run, the patient is almost always worse after the doctor takes a disease specific approach to his symptoms.

With Functional Medicine you will never again feel the need to take an empirical shot in the dark. You will have objective tests to guide your therapeutic therapy.

Comprehensive and Objective Testing

If a patient-specific, scientific analysis is your goal, then what is the next action step? Clearly, prescription of a patient-specific therapeutic regimen must be dependent upon a comprehensive evaluation of that patient. Furthermore, the patient evaluation must be achieved via objective testing procedures.

The field of Functional Diagnostic Medicine offers an analytical system by which to achieve a comprehensive patient evaluation. That system is based upon objective clinical data. The data is derived from a number of different criteria:

1. Tests of vital signs and neuro-endocrine reflexes.
2. Comprehensive unique patient questioning
3. First line physical diagnostic testing
4. Urine and saliva chemistries.
5. Evaluation of clinical and sub-clinical blood tests
6. Stool Tests
7. Evaluation of emotional and environmental issues
8. Careful evaluation of the hormonal system
9. Measurement of the patient's toxic load

After years of clinical testing, patterns of aberrant test results have been identified allowing the practitioner the unique opportunity to zero in on the underlying physiological, biochemical and metabolic abnormalities associated with a multitude of disease entities.

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