

Comprehensive Cardio Lab Work

An Interview with Decker Weiss, NMD, FASA, and Christina Cowger

Dr. Weiss: As one of the few naturopathic cardiologists in the U.S., I've been very fortunate in my practice. Over the past 14 years, of the thousands and thousands of patients I've seen, only two have had fatal heart attacks under my care, and both were 88 years old.

That said, before I had access to comprehensive cardio testing, lab work was a real headache. If I was worried about immediate risk to a patient, I might order testing for cytokine levels. Each panel had to be ordered separately and charged individually through insurance. We know that neurotransmitters levels are also important, but if I suspected depression or some other affective disorder, I had to test for every neurotransmitter separately. With other patients, I would also do standard testing for myeloperoxidase/C-reactive protein, and in addition, have a blood draw sent to a different lab for the new oxidized-LDL marker.

Now, all this testing is available in one package in a series of panels, and that has become a complete game changer in cardio medicine. I can order any and all of these tests or a complete NeuroCardio panel from a single lab, NeuroScience. I run that entire panel on every patient at the first visit, and within one month I run the neurotransmitter and cytokine levels again to see how they are progressing with treatment. Patients also want to know if they're getting better, and they want to know that sooner rather than later.

NeuroCardio Markers from NeuroScience

A full NeuroCardio panel provides information on immediate risk, inflammatory issues, and endothelial function, as well as neurotransmitter levels:

- cytokines – interleukin 6, 8, 10, and 17(A), and TNF- α
- myeloperoxidase
- ApoB, ApoA1, and ApoB:ApoA1 ratio
- oxidized LDL
- high sensitivity C-reactive protein
- neurotransmitters – serotonin, norepinephrine, taurine, glycine, glutamate, and DOPAC

At one month, we do not have to re-run the tissue markers. We don't have to run the C-reactive protein or ApoB:ApoA1 ratio. They're not going to change that quickly. We do, however, need to see improvement in the cytokines and neurotransmitters within a month.

This gives me a very tangible way to motivate my patients. My rationale is something like: "This is doable – how much do you want to participate?" I can get their buy-in with the realistic promise of fast results. "I'm going to show you that within one month we can get this to improve," versus "In six months we'll re-look at the labs..."

Motivation and Compliance

Dr. Weiss: For my patients, the ability to get measurable feedback on their progress ties in to both their motivation and their compliance. I am asking them to change their life. That means they need to look at how they go about every day and change it. In some cases, I'm asking them to change everything about their life, even their relationships. They don't want to wait three months to learn whether it's working or not. They don't want to wait six months or a year to find out if they've actually accomplished anything. That's the beauty of tracking neurotransmitters and cytokines. These levels will change (and hopefully improve) within a month so you can quickly see whether your treatment is on the right track, and if the patient is being compliant. Occasionally you may be missing the mark altogether, and you need to take a new look at that patient. In those cases, you don't want to wait three months or six months to find out that this was the wrong approach to treatment (because they just had a second heart attack). With this testing, if what you are doing isn't working, you will know within one month.

Context

Ms. Cowger: Before you had access to the various NeuroCardio panels, how were you piecing this information together? What would the standard of care have been over

the last two decades, in terms of both laboratory testing and clinical care? Would you simply have run a cholesterol panel and seen the patient again in six months? And how is this making a difference in your practice clinically today?

Dr. Weiss: Most of the testing never strayed from a standard lipid panel. Even when C-reactive protein tests became available, most cardiologists never ran those levels because there wasn't really a drug for elevated CRP. They might opt to lower those levels with statins, but since statins were already considered first-line therapy, that particular result would not have changed clinical decision making. So they might include CRP, or they might not. The lab work never really varied from the gold standard of the lipid panel. Over time the lipid panel evolved from four or five different markers to a number of different subsets of cholesterol, but ultimately most patients ended up on statin therapy or cholesterol lowering therapy in general.

Sicker, Younger

Ms. Cowger: I imagine that the expanded lab work is going to identify a whole spectrum of the population that has been at risk and gone undiagnosed.

Dr. Weiss: We're seeing people at age 35 and 40 having heart attacks. In cardiology, patients are getting younger and younger as our food supply worsens. The economic pressure keeps going up, and stimulant use keeps going up.... With the expanded lab work, we are going to be able to look at these people and say, "You might not have elevated C-reactive protein because you're only 35, but I'm concerned about your neurotransmitter levels, and your cytokines are elevated. At this point it's a race between cancer and heart disease and you're way too young to have either one."

The lab work provides us with an early warning system that identifies the patient's current state of risk. The panels take us through every parameter that we need to know as cardiologists.

Gender Issues

Ms. Cowger: As a woman I have a special interest in cardiovascular disease and how it relates to women's health. When I look at the data, it seems that men far outweigh women statistically in cardiovascular disease until women enter mid-life and beyond. The rates almost equal out at that point.

Dr. Weiss: Yes, they do. Women go from a cardio risk that affects one in seven pre-menopausally, to a risk that affects *one in three* menopausally, or in post-menopause. We know that in low estrogen states the vascular walls and the endothelial lining can become damaged. We're not exactly sure at what stage that occurs. We don't know. That's why everyone thought that if we gave women estrogen, their hearts were going to be better. But rather than estrogen, we gave them dangerous synthetic copies of estrogen.

Estrogen and Serotonin

Dr. Weiss: Women need estrogen post-menopausally to maintain the lining of their blood vessels. But vascular health is also intimately related to serotonin levels. There are all sorts of arguments about how estrogen and serotonin link, and the science gets quite complex. What I can tell you is that we're not really settled on exactly the interaction, but we do know that you have to check the levels of both. If a doctor is going to use bio-identical hormones and look at estrogen, they have to be checking serotonin levels to make sure that the estrogen is going to be effective, or to see how much estrogen the patient really needs. Maybe by boosting serotonin they don't quite need as much estrogen or estradiol, and they can lower their exposure and risk.

Ms. Cowger: Consider the case of a slightly post-menopausal patient who comes to your cardiology practice with a family history of cardiovascular problems, but relatively normal weight. Would you look at doing something like the NeuroCardio panel and then adding in hormone lab work?

Dr. Weiss: Yes, and I'm going to take that a step further. We now know that serotonin is really important. If we don't run serotonin levels as part of a heart panel, within ten years that will be malpractice. The data coming out is unequivocal. Given that healthy estrogen levels maintain vascular linings, and its relationship to serotonin, it's so obvious. Women have been telling us this for a long time, "I don't feel well, and my moods are down." And we dismissed it.

Ms. Cowger: It seems that statistically, at this menopausal crossroad, not only does the cardiovascular incidence rate jump, but we also see a lot of inflammatory conditions arise. We see the fibromyalgia rates spike, we see other inflammatory issues like metabolic syndrome, arthritis, and asthma start to really crop up at mid-life. Yet somehow the cardiovascular piece wasn't factored in all that other literature. It seems like we need to integrate all the different pieces of the puzzle.

Dr. Weiss: We also need to begin treating menopause when women are 40 and 45, to get their bodies ready for the change. When we're looking specifically at women and heart disease, as you pointed out earlier, we need the entire panel: hormones, neurotransmitters, cytokines, ApoB's, myeloperoxidase, and the oxidized LDLs. With women, we always have to go to another level to truly assess health status, especially with the hormones, because they are so complex. Since many women are using bio-identical hormones, they are getting those levels checked every 3-6 months anyway (or they should be to make sure that those levels are safe and accurate). So the women's heart panel is going to have serotonin, but also estradiol, estriol, esterone, progesterone, and DHEA as part of that evaluation. Forewarned with that kind of information, we are in a much more proactive position relative to treatment and prevention.



Cardio Lab Work

➤

Tools for Evidence-Based Medicine

Ms. Cowger: So where do you see the NeuroCardio taking cardiovascular disease assessment and management?

Dr. Weiss: I believe the NeuroCardio panel will eventually replace every cardiovascular panel in the world. Beyond that, there is no other place to go but to look at immediate risk and at underlying central nervous system control. There is no place else to go now that we have finally recognized depression as a risk factor for coronary disorders. Clearly we are going to have to assess serotonin and norepinephrine levels. The data is here, and it's overwhelming.

In the past, my success in managing heart disease in thousands of patients required the use of my intuition, but the NeuroCardio panel takes the guesswork out of medicine. Now when I see a low serotonin level, I can target that with 5-HTP. I can target methylation issues. I can target high cytokines using natural botanical anti-inflammatories or lifestyle. I can target oxidized LDL with antioxidants such as alpha lipoic acid and vitamins D, E, and K. The test values enable me to target treatment across all of those parameters.

Throughout our lifespan the parameters change. Our entire body chemistry changes. At 35, patients test one way. All of a sudden at 45 they're coming out of a bad marriage, so I need to consider central nervous system support. And at 55 they're in a good marriage, and they don't need so much of that type of support – but they've gotten fat and stopped exercising, and now I have to look at their inflammation. I can target that very specifically as well. I'll be so much better a doctor.

Ms. Cowger: This NeuroCardio testing casts a fairly wide net. We can start earlier, monitor more effectively, and detect risk factors that we might have missed otherwise. How motivating for patients!

Dr. Weiss: It is completely motivating! And patients get excited. They feel better and their neurotransmitters are better. Compliance goes up. And then they're reporting back to me that they've stopped eating fast food and that going to the salad bar really *is* working. So you have to win patients. You have to win them one at a time, and the NeuroCardio panels allow me to do just that.

Nancy Faass, MSW, MPH

WRITING SERVICES in INTEGRATIVE MEDICINE

Writing by Phone • Editing • Consulting
Articles • Books • Manuals • White Papers • Web

415.922.6234 San Francisco
info@HealthWritersGroup.com

Case Study: Coronary Heart Failure

Dr. Weiss: Welcome to the office. What can I do for you today?

Patient: I've been told I have congestive heart failure. I had an episode of not being able to breathe at night.

Dr. Weiss: So when you lay down you had a hard time breathing?

Patient: Actually, when I first started to fall asleep I'd stop breathing.

Dr. Weiss: What happens is that the fluid in the lungs is very affected by gravity. Sometimes people feel kind of weak during the day and when they lie down, the fluid starts to move up and they get a drowning effect, like an apnea. Then what happened?

Patient: I was hospitalized for three days, but I didn't present with any of the typical risk factors, so I was released. Four days later I was back with the same condition, and then they kept me there and ran the labs and the echocardiogram and the scans and found that the left ventricle ejection fraction was about half of normal.

Dr. Weiss: Your eight cylinders were down to about four. And some people feel horribly sick at that point; they build up massive amounts of fluid. In your case, you only had one symptom: that odd breathing pattern when you lie down. However, that particular pattern is usually very typical of heart failure; we call it the fluid feathers. You can see it on X-rays that way too. So what happened? You had a hospital course the second time. Did they cath you? Did they echo you?

Patient: Yes, all of it.

Dr. Weiss: And did they find coronary artery disease?

Patient: No coronary artery disease...almost none. The echocardiogram was the only thing that showed the specifics.

Dr. Weiss: So your heart, instead of being shaped like a football, was it shaped like a basketball?

Patient: Like a gigantic pear.

Dr. Weiss: Right, usually these things are caused by viruses, and often it's the coxsackie family of viruses. The walls of the heart are under constant pressure, pushing out, so when the virus attacks those walls and that tissue gets weak, it blows up like a pear or a basketball. But there can be other causes: one is thiamine deficiency or the inability to convert thiamine to the active form, thiamine pyrophosphate. Low selenium can be another factor, and there are other reasons as well. What we probably want to do is consider an overall approach with botanical antivirals, looking at what will modify imperfect cyclic AMP levels, and we can do that with botanicals. And I believe you have a toxic exposure history from what you told me. Paint fumes were a lot of what set this off for you?

Cardio Lab Work

Patient: Paint fumes made it dangerous. The CHF seemed like it was going to be manageable, but when the paint fumes hit, then it got freaky.

Dr. Weiss: And it will. Your lungs are trying to blow out the fumes, your metabolism is trying to do this, but you require a full pump to do that. Your breath is increasing so your heart has to do more, and it cannot sustain the effort. When the heart starts to struggle that way and there is a little fluid on the lungs, that will irritate the heart, which tends to trigger some electrical problems like ventricle tachycardia.

Patient: I was showing doubles and triples.

Dr. Weiss: It's spooky. You're sick, and you have heart failure. Oddly enough the paint fumes may have saved your life, because if you had not been exposed to those fumes, maybe you wouldn't have gone in that second time or you would have waited another two to three weeks, and then we wouldn't have found out about your weak heart so that we can treat it.

Given your sensitivity to fumes, we might also want to look at systemic gut and liver function to see if we can reduce some of that sensitivity. When I smell paint fumes, I duck and walk away. When you do, it can be devastating. I have seen this kind of sensitivity in dozens and dozens of patients. I have patients that we would isolate for days due to chemical sensitivity. If someone down the hall had perfume on, they would start to react. This is very, very real. That chemical sensitivity comes from the liver and the gut, and those are factors that we can work with. So we not only want to look at the heart, we look at gut and all the other factors that are presenting with these events. We can't just put the heart in a box and treat that in isolation. CHF can be a worse diagnosis than cancer, and I don't know why because my patients have had very encouraging outcomes. I'm not doing rocket science here. I'm giving anti-virals, ubiquinol CO-Q10s, and things like that. We want to get you exercising again, as that ventricle gets down to normal size. I have never had anyone pass on from this. I've never had anybody that needed to go to transplant with this. This is something that I really look forward to working with.

Patient: Great!

Decker Weiss, NMD, FASA, FFCC

Dr. Weiss became the first naturopathic physician to be board-certified in cardiology, completing non-invasive cardiovascular hospital-based training in the Columbia Hospital system, the Arizona Heart Institute, and the Arizona Heart Hospital. He went on to become a fellow of the American Society of Angiology. For more than a decade, Dr. Weiss maintained privileges at the Arizona Heart Hospital, while opening the Scottsdale Heart Institute, where he has helped thousands of patients reduce or eliminate medication safely as well as eliminate the need for angioplasty, ablation, and bypass surgery by reversing heart disease and managing arrhythmias using naturopathic therapies.

The International Association of Health Care Practitioners and the International Association of Cardiologists named Dr. Weiss, a "Leading Physician in the World" in 2012, a distinction given to fewer than 1,000 physicians each year. Dr. Weiss sits on the Functional Genomics and Translational Biology Committee of the American Heart Association. He currently maintains a teaching-based practice, while shifting the rest of his efforts to intractable conflict resolution as a Senior Fellow and Director for Artis Research's Center for Health and Medicine. His first paper, "*Status of the Central Nervous System during Wartime*," a research study conducted during the latest Hamas-Israeli war, is currently out for comment.

Christina Cowger, MA, MFT

Ms. Cowger holds an undergraduate degree from Syracuse University, has studied health education at California Institute of Integral Studies, and received her master's degree from Sonoma State University. She has an extensive background in integrative and mind-body medicine, reflecting two decades of research in these fields. A continuing education provider in California for therapists, social workers, and acupuncturists, she has lectured at venues that include California Pacific Medical Center/Sutter Health, Dominican University, Sonoma State University, Women's Association for Addiction Treatment, Children and Adults with Attention-Deficit/Hyperactivity Disorder, and Kaiser Permanente.

For additional information contact Ms. Cowger at: Christina.cowger@neurorelief.com

NeuroScience, Inc.

NeuroScience, Inc. is committed to delivering personalized health-care solutions. In conjunction with Pharmasan Labs, Inc., a state-of-the-art, CLIA-certified laboratory, we provide health-care practitioners with both integrative clinical assessments and proprietary nutraceuticals to identify and target neurological and hormonal imbalances. Our *Assess & Address* approach empowers clinicians to better understand patients' unique biochemistry and guide them toward optimal health through personalized, highly effective treatment recommendations.

NeuroScience, Inc.
373 280th Street, Osceola, Wisconsin 54020
Phone: 715-294-2144 or 888-342-7272; Fax: 715-294-3921
Email: CustomerService@NeuroScienceInc.com
Website: NeuroScienceInc.com

Editorial

Nancy Faass, MSW, MPH, is a writer and editor in San Francisco who has worked on more than 40 books for publishers that include Elsevier, Harper, New Harbinger, and others. Director of the Writers' Group, she also provides articles, white papers, and writing for the Web and can be reached at info@HealthWritersGroup.com.