

What I learned about environmental toxicity at the American Nutrition Association (ANA) annual meeting

written by Dr. Ronald Hoffman | November 21, 2019



I just returning from the American Nutrition Association (ANA) annual meeting in San Diego. The ANA is a brand-new coalition of organizations that promote the science and practice of personalized nutrition. There was a big launch party for ANA at the event.

I've always championed a personalized approach to nutrition because there's no one-size-fits-all solution to individuals' health challenges.

Its certifying arm is the Board for Certification of Nutrition Specialists (BCNS) which awards the CNS (Certified Nutrition Specialist) credential to practitioners who pass an exam and document nutrition experience and training. I obtained my CNS in 1995. Professionals who possess the CNS credential share the vision of personalized nutrition, and consumers can be assured of their rigorous preparation and competence.

The ANA is uniquely positioned to address America's health crisis. Over 60% of Americans suffer from one or more chronic diseases; over 70% are overweight or obese. Conventional medicine is ill-suited to address these problems.

Poor nutrition has now eclipsed smoking as the leading preventable cause of disease—yet most health professionals are untrained in nutrition science and practice.

The focus of this year's ANA conference was environmental toxicity. That may seem like an odd choice for a scientific body concerned with nutrition, but it quickly became evident from the speakers' presentations why toxins are germane to diet professionals.

Here are some highlights:

Dr. Joseph Pizzorno kicked off the conference by making the case for the ubiquity of environmental toxins—and their far-reaching health effects. I interviewed him recently for my Intelligent Medicine podcast.

He pointed out that obesity, and consequent metabolic syndrome with or without overt diabetes (present in over half of American adults), is not just a matter of excess calories and insufficient exercise. Surprisingly, arsenic toxicity is widespread, and is known to poison metabolic pathways that enable cells to respond normally to insulin. His research demonstrates that 18% of diabetes is attributable to arsenic overload. Where do we get it? From conventionally raised chicken, rice and other foods, or poorly-regulated water supplies.

Other toxicants that gum up our metabolic machinery include lead, BPA, PCBs, phthalates and glyphosate. They're referred to as "obesogens".

At this year's ANA meeting, there was a big emphasis on glyphosate (Roundup) as a disease-causing/health-undermining agent. Big lawsuits have resulted in multi-million-dollar awards to plaintiffs who claim their use of Roundup in farming or landscaping resulted in their developing lymphoma.

While the World Health Organization has labeled glyphosate a carcinogen, the US Environmental Protection Agency persists in classifying it as "safe".

But several speakers confirmed my long-standing suspicion that even low levels of glyphosate can have insidious effects. It's an herbicide, so it stands to reason it might kill off beneficial bacteria in the GI tract, damaging the integrity of the microbiome.

Maybe that's why people who avoid grains—which are often "cured" with glyphosate to ease harvesting and storage—often feel so much better and lose scads of weight, more than would be expected just by reducing their carb intake a bit.

Surveys show that glyphosate is ubiquitous in blood samples, urine, and breast milk—even in people who scrupulously avoid GMO foods.

There was also emphasis on genetic determinants of detoxification competence. Some of us are just "cheap dates"—their genes that metabolize and eliminate toxins like alcohol aren't robust. Conversely, others of us are human equivalents of "super rats"—hard to kill with even a stiff dose of poison.

The good news, according to one of the presenters—**Dr. Sharon Hausman-Cowan**, Medical Director of IntellxxDNA, a genetic analysis service I use—is that people with genetically impaired detoxification can benefit from supplementation with B vitamins, sulforaphane, pomegranate extract, N-acetylcysteine and glutathione. You can listen to a recent podcast I did with Sharon [here](#).

The world is getting ever more toxic with the introduction of thousands of industrial chemicals, herbicides and pesticides. Farms are coming to resemble SoyLent Green production facilities, with devastating consequences to the environment and food supply. But several speakers at the ANA conference spoke

optimistically about nascent programs to reintroduce sustainable, nontoxic, organic agricultural practices. Added bonus: Plants and soil act as CO₂ banks, so crop rotation can provide a “carbon sink” to mitigate climate change.

Of interest was a presentation on natural treatment of pain by **Dr. Robert Bonakdar** of the Scripps Center for Integrative Medicine. Noting that pain severity correlates with body mass index, Dr. Bonakdar addresses pain with low-carbohydrate diets that facilitate weight loss. But it’s not just any low-carb diet—it’s hypoallergenic and rich in anti-inflammatory polyphenols.

Additionally, a recent study revealed that researchers can predict the likelihood of fibromyalgia with 87% accuracy—based solely on a stool analysis of the bacterial composition of the gut! Hence, restoration of the microbiome with fiber and probiotics could prove a potent antidote to pain.

These natural interventions assume even more relevance in the context of our current devastating epidemic of opiate dependency.

What about weight loss via manipulation of the microbiome? We know we can turn fat rats skinny via fecal transplants from thin donor rats. Can this be achieved with humans? Speakers at this conference shared preliminary research that a less drastic intervention, use of designer probiotics, helped human subjects shed pounds. Might a commercially available weight loss probiotic be on the horizon? Stay tuned!

And how about “psychobiotics”? I met a colleague of mine at the meeting who had long been out of commission due to a case of *Giardia* parasites. After a while, she wasn’t sure if she was sicker from the bugs or the devastation from all the antibiotics she had endured.

But in San Diego she appeared radiant and refreshed. She was back to her demanding job and traveling to meetings. I asked her what her secret was: She said, “I had a fecal transplant.” And the weird thing, she added, is “I’ve never felt happier. It’s as if the infusion of beneficial bacteria from a healthy donor has improved my brain function, acting as an antidepressant.”

In fact, I learned that Purina has cashed in on the psychobiotic craze by launching its own probiotic veterinary formulation—“Calming Care”—that purports to curtail excessive barking by unruly dogs—by favorably altering their microbiome!

I’m bursting with excitement about sharing these and other revelations with you on future installments of Intelligent Medicine, with outstanding guests

that I lined up during the ANA conference. Join us!