



This past August, 12 nationally recognized functional medicine experts participated in the country's first online Metabolic Revolution Summit to discuss the importance of recognizing the dots that connect the majority of today's chronic diseases—high blood pressure, heart attack, stroke, pre-diabetes, Type 2 diabetes, weight gain, obesity, fatty liver disease, Alzheimer's, dementia, cancer and even infertility. All of the panelists pointed to the root cause that links them all—the craze for a high-carbohydrate, low-fat diet starting in the 1990s combined with a sedentary lifestyle.

When several complex conditions exist simultaneously, medical science refers to them as a syndrome. Regardless of how such intricate interrelationships become manifest, all of these syndromes have early-stage signs that include inflammation, high blood sugar and insulin resistance, which can affect metabolic health.

A Holistic Approach

Doctors that specialize in functional integrative medicine strive to improve the health and well-being of patients by

It's All About Metabolism

Getting to the Root Cause of Disease

by Linda Sechrist

Attempts to tender lay explanations of how to attain and maintain better health have become fragmented and compartmentalized, with complex scientific cause-and-effect explanations of disease regularly reduced to isolated infographics and sound bites in the media. But understanding our body's sophisticated, self-regulating, self-correcting and interdependent physiological systems, which work in collaboration with each other and inform us of the body's status by means of symptoms, deserves a whole-systems frame of reference.

Stepping back from immediate concerns to grasp the bigger picture allows for rethinking the Western approach to health. A perspective that connects all the dots works best, beginning with the foundation of wellness—the functioning of 73 trillion cells that are organized into a variety of tissues, including interconnected systems of organs. Optimally, they function together harmoniously to achieve homeostasis, the overall chemical and energetic balance that defines metabolic health.

The Reign of Metabolism

Many perceive the role of metabolism as limited to determining energy expenditure via the number of calories burned per day, but it does much more. Metabolism actually encompasses thousands of physical and chemical processes that take place in the functioning of every cell, the building blocks of life; healthy cell function produces proper endocrine (hormonal) functioning, influencing homeostasis.

engaging them in their own healing process. One popular approach is practiced by Durango, Colorado, Doctor of Chiropractic James Forleo, author of *Health is Simple, Disease is Complicated: A Systems Approach to Vibrant Health*. He starts by educating people about the basic functioning of the major body systems involved in their specific health challenges.

"To maintain metabolic health, no one should overlook that the body's intelligence works 24/7 to solve multiple problems simultaneously, including balancing their metabolism. The more complex the pattern of symptoms, the more systems are involved. Whether a single or group of symptoms indicate metabolic dysfunction, it means that numerous systems that rely on healthy cells are unable to perform their normal functions," explains Forleo.

For example, blood sugar issues, excess circulating insulin and buildup of excess glucose stored as fat can lead to metabolic dysfunction. The pancreas, thyroid and gastrointestinal tract—primary glands in the endocrine system that plays a major role in balancing body chemistry by secreting hormones directly into the circulatory system—are negatively impacted. Well-functioning adrenals are necessary to balance blood sugar and one role of the pancreas is to produce insulin.

When five of the eight major organ systems—immune, endocrine, cardiovascular, digestive and endocrine—are impacted by metabolic dysfunction, a more holistic and systemic approach to health can provide a broader understanding of how they interrelate, and why preventive measures can preclude having to later pursue ways to reverse serious chronic diseases.

Pioneering integrative doctors are connecting the dots that point to the root causes of the majority of today's chronic diseases.

Lifestyle Factors

Functional medicine's integrative approach to metabolic health is based on proper nutrition and regular exercise. "The inflammatory agents present in much of the food consumed at each meal in the standard American diet—high-glycemic refined carbohydrates, high-fructose corn syrup and other sugars, and hydrogenated and partially hydrogenated fats—are the biggest offenders," says Forleo, who notes that the body instead needs good fats, such as those obtained from olive and coconut oils.

Factors over which we can exercise some control—physical activity, stress, sleep, diet and circadian rhythms—all play roles in metabolic health. Unfortunately, "We are moving further away from our ancestors' healthier diet and lifestyle. We're overfed and undernourished because we're no longer eating for nutrition, but for entertainment," remarks Doctor of Chiropractic Brian Mowll, the medical director of Sweet Life Diabetes Health Centers in Pennsylvania and Delaware.

He characterizes metabolic dysfunction as the ultimate problem because it's the doorway to many other ailments. "A hundred years ago, infectious diseases plagued humanity. Today and in the future, it'll be metabolic disorders such as obesity, cancer, metabolic syndrome, thyroid disorders and other endocrine problems, diabetes and Type 2 diabetes," predicts Mowll.

Metabolic Health Education

Dr. Caroline Cederquist, author of *The MD Factor Diet: A Physician's Proven Diet for Metabolism Correction and Healthy Weight Loss*, and founder of Cederquist Medical Wellness Center, in Naples, Florida, conducted a one-year study of patients to identify their health issues via blood work analysis. Eighty-nine percent of the men, women and children showed evidence of insulin resistance. This often-overlooked metabolic condition affects how the body processes glucose, a simple sugar and the body's primary fuel, making gaining weight easy and losing it difficult. Treated with proper diet, lifestyle changes and supplements, plus medication in advanced stages, Cederquist found that metabolic dysfunction is reversible.

She explains that long-term insulin resistance can lead to fatty liver disease, high blood sugar and eventually, diabetes. It also directly affects cholesterol levels and can induce triglycerides, high blood pressure, low HDL (high-density lipoprotein, or "good" cholesterol), increased waist circumference and heart disease. In Cederquist's young adult patients, metabolic dysfunction was also associated with polycystic ovarian syndrome, a cause of infertility.

Germany's Dr. Wolf Funfack, a specialist in internal and nutritional medicine and creator of a well-regarded



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metabolic balancing program, noted that insulin resistance both increases the production of stress hormones and blocks production of the anti-inflammatory hormones that slow the aging process. Funfack's all-natural, personalized nutrition plan, backed by more than 25 years of scientific study, is designed to bring hormonal balance, optimize health and lead to long-term weight management.

Cardiologist Stephen Sinatra, author of *Metabolic Cardiology*, goes a step further. He believes that metabolic dysfunction involving cells, hormones and inflammation encompasses the molecular-based essence of all disease. He observes, "Individuals diagnosed with several conditions can leave a doctor's office with three or four prescriptions, rather than the one solution for reversal and prevention—a healthy lifestyle and non-inflammatory diet to offset and neutralize weight gain, blood pressure elevation and other abnormalities such as high blood sugar."

Mowll agrees that many conventional healthcare practitioners don't address the root cause of metabolic disorders or provide lifestyle interventions. "They simply reach for the prescription pad," he says. This growing problem presents an opportunity to educate the entire populace.

Bestselling *Virgin Diet* author JJ Virgin, who characterizes the human body as a "chemistry lab," adopts an easy-to-follow nutritional and fitness approach for metabolic health. She recommends eating the types of healthy fats found in wild fish, raw nuts and seeds, coconut, avocado and olives. Virgin prefers the clean, lean protein of grass-fed beef and wild fish, plus low-glycemic lentils and legumes and plenty of low-glycemic fruits like raspberries, blueberries, pears and grapefruits. Low-glycemic vegetables on her list include green peas, green beans, broccoli, cauliflower, onion and eggplant. "When you eat this way, there's a slow release of sugar, and insulin remains at lower levels," advises Virgin.

As in any systems theory, the whole must be understood in relationship to the parts, as well as the relevant environment. Experts agree that it's paramount to take an expanded, systemic approach to metabolic health, rather than fixating on only one or two aspects at a time. Metabolic health—from basic cells to the most sophisticated of organized systems—can only be achieved and sustained when the whole system is healthy.

Linda Sechrist is a senior staff writer for Natural Awakenings and host of the online Metabolic Revolution Summit. Visit her website ItsAllAboutWe.com for a free audio sample.

How to Talk with a Doctor

by Carol L. Roberts

Many patients, both men and women, have a hero-worshipping attitude toward their physicians and can be intimidated during visits. They may feel it's impolite to question a doctor, even to get information needed to make critical decisions for one's self or a loved one.

Some doctors seem to have forgotten they are still just people with a medical degree. Patients should remember this if they encounter any perceived aloofness or arrogance. Too often, such an unhelpful attitude may be acquired along with professional experience.

Getting ready for a visit to a doctor often entails following instructions, but should also include preparing questions you want answered. If a serious health issue has surfaced, such as an abnormal lab test or a diagnosis that requires treatment, make key questions count: "Where did this come from? Is there anything I can do for myself? What is the recommended treatment? What are the expected effects and unintended side effects of the proposed treatment? Are there alternative forms of treatment? Can I speak to one of your patients that has undergone this treatment?"

Then, do online research upon returning home. The Internet has placed the entire library of medicine at our fingertips. Sift out the science from the hype, refine questions and go back for deeper answers. Get a second opinion from another medical doctor or naturopath (some states license them) or doctor of Oriental medicine (acupuncture and herbs). No matter if the proposed treatment is as seemingly simple as a course of antibiotics or as serious as surgery, question it before automatically submitting to a diagnosis and drug prescription.

Each of us is the only person on Earth with the unique vantage point of living inside our body. We shouldn't let anyone label us as depressed if a sick body says otherwise, that "It's all in your head," if it's real, or that there's no cure. That's where alternative medicine usually begins and miracles can happen. The best results come from standing up for ourselves.

Dr. Carol L. Roberts practices integrative medicine at the Perlmutter Health Center, in Naples, FL (PerlHealth.com). She is a founding diplomate of the American Board of Integrative Holistic Medicine.