I chose a career in medicine, combining my love of the humanities and sciences. In the clinic, I often was more interested in my patient’s stories than their symptoms and diagnoses. Medical training under the rigorous aegis of our professors taught us to take care of diseases, but not of our patients or ourselves. Exhausted and frustrated by the training process, I left my family practice residency after one year and took a job in emergency medicine.

I found much satisfaction in the ER, treating acute illnesses and injuries with tools that really helped care for acute human suffering. But after a few years, I recognized the limitation of the acute care model, as my ER shifts became crowded with patients who would call ahead to find out when Dr. Green was on duty so that they could seek help for chronic health problems that were unresolved by their primary care physician.

In 1981, I discovered the Society for Clinical Ecology, now called the American Academy of Environmental Medicine. Clinical ecology brought a whole new set of questions to the diagnostic investigation, such as: What is the patient eating, drinking, breathing, wearing or harboring in his body that is triggering/inciting symptoms and tissue injury, leading to a diagnosis of medical illness?

We also learned to explore the deficiencies, weaknesses or predispositions that increase susceptibility to injury. Using these tools, I found that many people with chronic health problems could be helped immensely. This led me out of emergency medicine and into the care of chronically ill patients. I later found that the principles taught in clinical ecology are the same principles
upon which the Defeat Autism Now! (DAN!) approach to autism diagnosis and treatment is based.

In the mid 1990s, a mother brought her four-year-old son with autism, Jordan, to me for evaluation. He was only the third person with autism I had treated, and at that time, his mother knew more about the disorder and its treatment than I did.

We approached his treatment together, with mom helping me to let go of stereotypes I had acquired about autism as an untreatable illness. She also helped me to access tools that I’d used in investigating many other types of chronic illness (i.e., looking at his biochemistry, allergies, gut flora, toxins and general nutritional adequacy, and supporting the family’s strengths).

Jordan made great progress over the years, doing well academically, becoming involved in religious training and demonstrating real talent as a musical performer. Jordan has a few residual deficits—a speech impediment, allergies and mildly concrete thinking—for which he compensates with a delightful sense of humor, a very affectionate nature and a striking concern about justice. Jordan and his mother opened for me the world of treating children with autism.

I began to see a few other affected children, and in 2000, a mother whose daughter with autism had begun to improve under my care brought to me a deluge of children with autism spectrum disorders (ASD). I became acquainted with more parents of children with ASD and was amazed at the devotion, intelligence and commitment that are common to people with autism. The severity of the autism epidemic became palpable to me, and a growing sense of urgency developed.

I learned more about caring for the affected children, and felt a growing need to commit my practice to these children and their families. So for the past five years, I have been saying goodbye to my faithful adult patients and accepting only children with ASD into the practice.

“*The severity of the autism epidemic became palpable to me, and a growing sense of urgency developed.*”

Basic Principles about Autism

There are a number of basic principles about autism that must be understood.

1) Autism is not a diagnosis, but rather a classification based on behaviors, which are caused by injury or imbalances. The diagnosis is useful in that it activates parents to seek help, provides a term to use on the Internet for further study, gives access to rehabilitation services, and allows scientists to group children with this diagnosis together for further study and treatment. It would actually be better to talk about “autisms,” as children with the same diagnosis are quite different from each other.

2) Symptoms are a language of the body and an indication of distress, such as pain, fear, frustration and a biochemical disruption. While treating symptoms may ease distress, we must always seek to get to the core issues causing the distress. For example, a child’s agitation may be better treated by removing an allergic food or clearing an impacted bowel than by giving him Risperdal (an antipsychotic drug).

3) Most children gradually improve in response to effective treatment and in a stepwise or incremental fashion. While there are many stories of dramatic, quick recoveries, these are infrequent. The majority of children improve gradually with much work and with periodic setbacks and readjustments.

4) A child’s symptoms result from an overload of demands (allergens, infectious agents, toxins, psychosocial stresses, inflammation, oxidative stress) in combination with weakness or susceptibilities, which impair ability to respond to the demands (impaired energy production, inherited enzyme weakness, nutritional deficiencies, osteopathic disorders, sleep deficits, hormone imbalances, etc.).

5) Each child is biochemically individual, and even identical twins are not an exact match in biochemistry or genetic expression. Stories of other children may prove helpful to the care of your child, but it is most important to focus on your child as a unique person.

6) As Dr. Martha Herbert (see article on page 18) has observed, the brain is connected to the rest of the body, and what happens to the body affects the brain.

7) Grandmother did know best, and cod liver oil really is good for most of us. Nutritional deficiencies/dependencies are rampant in the population and particularly in children on the autism spectrum.

8) There are many self-perpetuating cycles of tissue injury and dysfunction that operate in people with chronic illness such as autism. Breaking these cycles is necessary to help free the body to heal and restore its own physiologic pathways.

For example, the child born by cesarean section fails to get the normal gulp of vaginal mucus to colonize the GI tract with probiotic flora. Absence of lactobacillus may be associated with increased allergic problems. Allergies in young children frequently lead to infections, with consequent antibiotics. Antibiotics tend to further disrupt intestinal flora and may lead to colonization with pathogenic yeasts and bacteria. These organisms may produce abdominal distress and also neurotoxins, which affect eating behaviors, leading to preferences for simple sugars and less nutritious foods.
In addition, disruption of bowel flora is associated with impaired digestion and assimilation, and also reduced production of essential nutrients such as pantothenic acid, biotin and vitamin K. Many of these issues aggravate the tendency to infections, allergies, further immune disruption and impairments in detoxification systems. Early on, the supplementation of the cesarean section infant with good bacteria may prevent or short-circuit some of the cycles described above and help the child to develop a healthy immune response and a healthy digestive tract.

In more advanced cases, improvement of the quality of the diet, enhancement of digestion and absorption, restoration of normal GI flora and elimination of toxic organisms may contribute to breaking the extensive cycles described above. In fact, if one looks closely at the pathologic findings that are common in autistic children, such as oxidative stress, overload of toxins, chronic inflammation, and impaired energy production and neurotransmitter signaling, each feeds into other negative cycles of illness. Our task in treatment is to identify and break such cycles as thoroughly as possible.

9) The medical treatment of children with ASD has small inherent risks, most commonly of transient setbacks associated with hypersensitivity to an intervention or a chosen treatment method that is off the mark. The risk of serious harm in the hands of a capable trained physician is extremely low. The risk of not treating these sick children and hoping for spontaneous improvements is much greater than any risk of treatment.

10) Early initiation of comprehensive treatment greatly enhances the effectiveness of therapy and the extent of benefits to be expected.

11) There still are significant unanswered questions in autism, but at this point we know enough to expect to help every child with treatment and to see a recovery in many children.

12) Treatments can be tough for parents and require tough love. Remember, while tough love is tough, it is love.

**Autism as a Systemic Illness**

My evaluations of more than 1,000 children with ASD have demonstrated clearly that these children are physically ill, afflicted with significant problems in many organ systems. The work of treating them amounts to two basic processes, both aiming to restore balance and vigor, and proper communications extending from the cellular level to the interpersonal.

The first basic process is the identification and treatment or removal of obstacles to healthy organ activity. There are many such obstacles in the worlds of children with ASD, some obvious and some subtle. Commonly encountered obstacles include allergies and food intolerances, metal and chemical toxicities, infections (fungal, viral, bacterial, parasitic and mycoplasmal), oxidative stress (problems with electrons moving around in the body out of control), acidosis (too much acid being produced in the system, though usually not in the stomach, where it is needed), and psychosocial stress (sensory issues, confusion and frustration, difficulty recognizing and receiving love, etc.). A child may show major improvement simply by clearing an obstacle that is troubling him, such as a food intolerance, yeast infection or metal poisoning.

The second basic process is identifying what is weak, disrupted or deficient in a child and working to overcome or compensate for the impairment. Among the issues that must be addressed:

- ASD children often have impairments or deficiencies in immune defenses (especially in cellular immunity and in the proper regulation of the immune response).
- They are commonly deficient in many essential nutrients due to self-restricted diets, poor digestion and absorption, nutrient wasting through cellular energy disruption or nutrient-depleted food supply.
- Their tissue oxygenation may be disrupted by stiff red blood cells, abnormal clotting tendencies and acidosis. Excess acid in the system results in hyperventilation (over-breathing), which decreases brain blood flow.
- Deficiencies in digestive factors are extremely common, including essential enzymes (dipeptidyl peptidase IV [DPP-IV] and others), stomach acid, intestinal hormones (secretin, cholecystokinin [CCK]), bicarbonate (acid neutralizer), secretory IgA (antibody lining and protecting the mucous membranes) and beneficial flora (friendly germs).
- Neurotransmitter levels and activities often are weak in ASD, related to a number of factors, including malabsorption of essential amino acids, impairment of methylation (dependant on B6, B12, folic acid and magnesium) and oxidative stress.
- Weakness in detoxification functions also is common in ASD. There are many aspects to this problem, salient factors being: impaired synthesis of glutathione (a personal cellular “bodyguard”), disruption of the activity of metallothionein (a super-potent metal chelator made in the body) and depleted sulfation pathways (which can cause impaired detoxification and additional biochemical disruptions).
- Children with ASD often have injuries or imbalances in thyroid and adrenal glands that need attention.

“The first basic process is the identification and treatment or removal of obstacles to healthy organ activity.”
Environmental Factors in Autism

There is increasingly strong evidence that the autism epidemic, along with increases in many other childhood diseases, is related to environmental toxins (in addition to mercury). These toxins are persistent, bioaccumulative agents, which are found in food, water and air.

Some of these harmful agents include PCBs, flame retardants, plastic derivatives, pesticides and herbicides, fluorinated hydrocarbons found in Teflon, and a long list of toxic waste products that are added to fertilizer as a means of disposal. These types of chemicals produce oxidative stress (inability to protect the brain and other sensitive tissues from our own metabolic byproducts), hormone disruption (especially thyroid and sex hormones), obesity and insulin disturbances (arsenic and MSG), and impairments in neurotransmitters and cell signaling systems (pesticides, plastic derivatives, heavy metals, PCBs). The developing nervous system is particularly susceptible to disruption by toxins, and such disruptions may result in many of the symptoms of autism.

It is becoming apparent that through epigenetic mechanisms (such as the switching on or off of critical genes through effects of certain chemicals), parents may transmit to their children damage to genes acquired through environmental exposures. This may result in a syndrome that looks like a classical mutation, in that several children in a family may be affected. The critical difference is that these disturbed genes might be restored to appropriate functioning by vigorous detoxification and nutritional support of the parents before they conceive another child, thereby reducing the risk of having a subsequent special-needs child.

Healing in Autism

It can be (and often is) overwhelming to attempt to do everything possible to address a child’s autism. The important thing is to decide what to do next, and then do it properly. For children with autism spectrum disorders, healing happens through removing obstacles and strengthening weak systems by supplementing for physiologic deficiencies and providing corrective therapies.

As Sid Baker, M.D., has said, “We seek to find out what the child needs to eliminate, and what they need to get more of. In doing so, we allow the body to return to a state of balance, restoring its incredibly intricate communication systems and repairing injured organs to the extent that is possible.”

Autism: A Global Problem

Our society is finally looking deeper into the epidemic of autism. But it is just beginning to do so, as more professionals and influential people see their own children affected. This disorder is threatening to fiscally incapacitate our educational system and will place inconceivable burdens on the next generation if not solved. Even if the rate of increase of autism is halted now, the costs of caring for affected children growing into adulthood may be more than we can bear.

It is parents, hundreds of thousands of them in the United States alone, who will determine the fate of our children and, ultimately, of our society. Children need to have full access to all of the currently useful treatments. No longer can we tolerate the “head in the sand” approach of regulatory agencies to toxins, overuse of antibiotics and nutrient depletion of our soils and foods, all of which are contributing to this disease. We need to demand and receive vigorous funding from the government for relevant and unbiased research into the remaining unanswered questions about causation, prevention and treatment.

If we unite in purpose and make our voices heard, the undue burdens on our children that are causing this epidemic can be targeted and removed.

Note to Parents

Since committing my career to the treatment of children with autism, I have met more brilliant, amazing, dedicated parents than ever before, and have been deeply touched by the beauty and depth of these children and the boundless love of their parents. It takes a very special person to successfully parent a child with autism. I commend and bless all of you who have been given this assignment. May your child find healing in the years to come.

AUTHOR

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