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Practical Solutions for Autism Recovery

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“In recent years, Autism, Asperger’s and other related illnesses on the autism spectrum have become treatable to a large degree, especially when appropriate interventions are started early. Significant progress has been made in understanding the toxic brain injury and brain inflammation that starts the downhill cascade of events in genetically susceptible children. Genetic Mapping with its subsequent targeted nutritional suggestions is an evolving science that is starting to provide important therapeutic pearls. What is largely overlooked is the devastating effect of electromagnetic radiation on children, from household electric wiring, wireless internet, cordless phones and microwave (from cell phone networks). What also does not seem to be addressed enough is the effect of mycotoxins from mold in the home and Lyme disease, which is often passed on from the asymptomatic mother.” Dietrich Klinghardt

Autism Recovery: A Practical Resource-Oriented Workshop for Concerned Parents and Practitioners was offered by Dietrich Klinghardt, MD, Ph.D. and faculty in Bellevue, WA on March 30-April 1, 2007. Both practitioners and parents of autistic children attended. The three day seminar was punctuated with lively question and answer periods from very aware parents and well-versed practitioners. Faculty included Lee Cowden, MD, Tomatis instructor Liliana Sacarin, MS, RC, Andreanna Rainville (Vaughan), RN, Amy Derksen, ND, Elizabeth Sheehan, DC, CCN and Aristo Vojdani, Ph.D. of Immunosciences Laboratory. A post-conference seminar was offered by Lee Cowden, MD, focusing on Laser Energetic Detoxification, a method of shining laser light through homeopathic remedies to quickly unblock detoxification pathways.

Topics explored included toxicity, infections, biotoxins, EMF exposure and its catastrophic effect on the genes and biochemistry, healing the toxic home, neurosensory development through Tomatis work, family constellation

therapy and various forms of physical therapy, supplements, medication and “magical formulas”, meaningful laboratory testing for autism, food preparation and practical tips for parents, effective and gentle methods of detoxification, energy medicine including homeopathy, microcurrent technology, microwave shielding, and inhaled ionized oxygen. Throughout the seminar practical tips and tricks were offered, including demonstrations of physical exams, tools and techniques.

There are six illnesses that have the same underlying causes and respond to similar treatment strategies, explained Dr. Klinghardt. These are autism, Asperger’s syndrome, allergies, atopic skin disease, asthma, ADHD and seizure disorders. Environmental and genetic factors seem to determine how a child adapts to the toxic insult and which one of these illnesses develops.

In Germany, only one in four children are still healthy, said Dr. Klinghardt. “Recent literature reviews show that the incidence of ASD has increased from 0.4 children per 1000 in 1985 to 1 in 150 children in 2000 with the highest number (nearly 1 in 100) in New Jersey. Today, it is possible that 1 in 4 children is on the spectrum.”

Dr. Klinghardt began by exploring the world of the autistic child, which, he said, is consistent with the expected and reported findings of severe mercury toxicity and chronic Lyme disease. On a physical level, mirror neurons are blocked in the frontal cortex, which creates an inability to spread them out as far apart as possible and give them as late in age as possible.

Toxins in the Home – EMF and Mold

Dr. Klinghardt says that, “Autism starts in the womb which lives in a home. The home has a huge influence on autism.” Dr. Klinghardt describes our houses as cardboard boxes with plastic wrapped around them. Our houses do not breathe, they build up toxic chemicals and they permit

electromagnetic radiation to come in. By the time a person moves into a new house, it is already moldy. Most U.S. children grow up in homes that are toxic or electromagnetically contaminated. Adults present with loss of zest, short term memory loss, lack of creativity, sex drive and potency, insomnia, fatigue, dulling of the senses, and a dramatic increase in neurological and psychiatric illnesses.

Cordless phones are the worst offenders, says Dr. Klinghardt. The effect is like a gunshot going off in the brain. Known medical effects include disturbance of all known intrinsic rhythms (EEG, heart rate variability, breathing patterns, 24 hour meridian activity, bowel movements, detoxification and more). The blood brain and gut barrier (leaky gut syndrome) are stuck in an open position, there is a synergistic effect with other fields and mold growth increases in homes. Microwave technology, such as in cell phone radiation from the base station, affects the blood brain barrier in a 1.6 mile radius. The known medical effects include increased cancer rate three fold in ten years after cell phone radiation is brought into a community, after a five year incubation period. Severe EEG, HRV and EKG changes, delayed and disturbed brain development in infants, decreased melatonin and hormone production, an open blood brain barrier with increased toxicity all affect endothelial cells in gut mucosa and endothelium, and are responsible for illness and death in trees, especially right in front of the cell towers.

Melatonin induces sleep. We only heal and detoxify in deep non-rem sleep. Electrosmog reduces melatonin production in the pineal gland. Dr. Klinghardt quoted a study, *Melatonin protects against mercury induced oxidative tissue damage*, published in *Basic and Clinical Pharmacology & Toxicology*, Vol. 91, Dec. 2003, pp. 290-296 that says that melatonin is the most effective and potent neuroprotective chemical in the CNS and prevents damage from mercury, lead, aluminum, chemicals, mycotoxins, viruses, cigarette smoke, bacterial and parasitic endo- and exotoxins outgassing from carpets and new car plastics, etc. Without melatonin no regeneration and no detoxification can occur. Fluoride also destroys our melatonin.

Molds are spore forming organisms. The spores hatch in the human body, often in the nasal passages, and release potent neurotoxins. Neurotoxins destroy the ability of the nervous system to both develop and function normally. Neurotoxins are often also immuno-toxins and alter or suppress functions of our immune system. Some neurotoxins are also carcinogens. Mold grows in moist areas of the house. The spores spread from there to every nook and corner of the house and are impossible to remove completely. Exposure to high levels of indoor mold can cause injury and dysfunction of multiple organs and systems, including respiratory, hematological, immunological and neurological system, in immuno-suppressed individuals. Mold damages healthy people, too, says Dr. Klinghardt.

The most important immediately effective measure to protect our children from further harm, Dr. Klinghardt says, is by using a propolis vaporizer at all times. Propolis attaches to mold spores. It is amazingly effective in neutralizing mold spores and harmful bacteria in the home.

For electrosmog, Dr. Klinghardt suggests moving the child's sleeping location until the child wakes up refreshed. Install a "demand switch" or disconnect fuses for every outlet in the child's bedroom walls. Buy corded phones for the home or disconnect cordless phones at bedtime. Do not use wireless internet. Inspect the neighborhood for cell phone microwave emitters. Install an anti-electrosmog mosquito net. Sleep on a silver coated bedsheet with or without grounding, and move from the house, if necessary.

Tomatis Method

The Tomatis Method of Sound Stimulation was discussed by Liliana Sacarin, MS, RC, Tomatis instructor. The ear perceives well in autism, she said. But motor input does not follow. Train the ear and the voice change instantly. Through the Tomatis method, the child's ability to control and perceive the world changes. The method helps to increase the child's ability to analyze by helping to comprehend smaller and smaller aspects of sound.

Laboratory Testing

Dr. Vojdani from Immunosciences Laboratory offers a premier autism panel that tests for streptococcal antigens, gliadin peptides antibodies, casein peptides antibodies, antibodies to mercury-binding antigens (fibrillar), dipeptidylpeptidases antibodies, anti-myelin basic protein antibodies, anti-neurofilament antibodies, metallothionein, natural killer cell cytotoxic activity, measles antibodies, immunoglobulins, varicella zoster virus, cytomegalovirus or CMV, Epstein-Barr virus or VCA, Herpes Type 1 2 and 6 viruses. Immunosciences also offers laboratory testing panels for autism that includes immune function, intestinal barrier function, food allergy and intolerance, infectious agents, neuron-autoimmune antibodies induced by dietary proteins and infectious agents, autoimmune reaction and involvement of metals.

Food Allergies and Supplements

The best diet for an autistic child, said Dr. Klinghardt, is a common sense diet. Eliminate all grains, especially gluten containing barley, rye, oats, wheat and spelt, all cow dairy, all soy, all corn, and all non-organic food. Give enzymes at the end of each meal (digestive enzymes are pH dependent and work in alkaline environments. The pH in the stomach is 1.5 before eating and 4.5 at the end of a meal, much more alkaline. In terms of probiotics, *saccaromyces boulardii* is yeast that competes with other yeast for nutrients. It is very effective in the treatment of candida, even systemic candida. If still breastfeeding, mothers can take chlorella 3-4 times per day to

clear toxins from the milk. Chlorella is product sensitive. It is important that the chlorella has had its cell wall cracked by sound waves. Dr. Klinghardt recommends Biopure chlorella.

Children often love chewing the chlorella tablets, says Dr. Klinghardt. The more the better. Swiss mothers have reported complete resolution over 12 months of their children's autism by giving 120 or more tablets of chlorella daily. Chlorella detoxifies the gut and GALT. It elevates intracellular glutathione, activates PPAR, has sporopollenin increases metallothioneine and it has specific peptides to remove mercury, lead and all other toxic metals, and it alkalinizes the system. Chlorella contains a high amount of Vitamin B12. Using CGF liquid can be a nice first step since it binds and mobilizes. This way chelation may be started very slowly.

Cilantro is capable of mobilizing mercury, cadmium, lead and aluminum in both bones and the central nervous system. It is very effective in mobilizing mercury stored in the intracellular space, including the nucleus. Cilantro contains a mildly toxic compound which is neutralized when it is placed in a small amount of hot water before ingesting. It should be taken together with chlorella which is a binding agent.

Vitamin B6 has benefits in autism when given in high doses, 300-500 mg/day or 30 mg/kg/day as pyridoxal HCL. Dr. Klinghardt suggests a 6 week trial. If the patient has no beneficial response during that time, he recommends continuing to give closer to a normal dose for the entire length of treatment time. Given as P5P, higher doses are needed, he says.

Folic acid is a key nutrient in brain development. Foliates are critical enzyme co-factors for DNA and RNA synthesis and methylation. They have a strong anti-viral effect against HPV and are the most important nutrients of the brain. There are three forms. Folic acid is synthetic oxidized folate not found in nature. Unmetabolized folic acid has an anti-folate effect. Folinic acid is naturally occurring. In some, but not all children it can be converted to metabolically active folates, including the mitochondrial folate functions, and L-5 methyltetrahydrofolate (L-5MTHF – monoglutamate form), the only folate that crosses the blood brain barrier. A common problem in ASD children is folate receptor antibody syndrome (selectively in the brain). The brain is starved for folate. Give both folinic acid for the mitochondrial functions (100-400 mcg four times per day) and MTHF to bypass the folate receptor problem in the brain (400-1200 mcg four times per day).

According to Dr. Klinghardt, there have been misunderstandings regarding B12 and folic acid. In addition to folinic acid and MTHF, giving folic acid in combination with hydroxyl-B12 (5:2 ratio) is helpful when given at the same time sublingually several times/ day. This combination has been found to demethylate toxins (and makes them more easily processed) and can be very effective for stims, tantrums and any daily acute crisis. Dr. Klinghardt says that it is best to use ART testing to find which form of folic acid is the right form for this particular patient today. Folic acid de-methylates

toxic substances, and has an anti-viral effect for HPV. Hydroxy-B12 has been found to remove toxic nitric oxide compounds from the brain.

Glycine is the most important rate limiting amino acid in the detoxification pathways used to eliminate solvents, PBDEs, phthalates and other chemicals which are almost always involved in ASD. Toxins harm enzymes involved in methylation. The damage may be to the genes, the epigenome or other mechanisms. The activation and silencing of genes is dependent on methylation, the restoration of glutathione and many other issues. To bypass the glitch, consider methyl B12, folinic or methylated folic acid, Sam-e and Di-or Trimethyl glycine, says Dr. Klinghardt.

Autonomic response testing is a form of kinesiology that incorporates the health of the autonomic nervous system, i.e. the sympathetic nervous system, the parasympathetic nervous system, and all the ganglia that innervate our body systems, including the digestive system and the brain. ART helps create treatment protocols specific to each client's needs. I

Detoxification for Everyone

The elimination of toxic metals is most important, followed by the elimination of organic toxins such as insecticides, wood preservatives, PBDEs and phthalates. "Everyone is toxic," said Dr. Klinghardt, and everyone needs to be detoxed for lead and mercury. We all have PBDEs (fire retardants), phthalates and more. Detoxification needs to happen in the order that the body can handle.

Once ethyl mercury is introduced as thimerosal into the body via injection, it is picked up by unmyelinated nerves and travels inside the axons of the nerves in less than 24 hours into the spinal cord. In another 24 hours it reaches the brain, where it is initially taken up by the astrocytes. They become ill and start failing in one of their most important jobs: to create the blood brain barrier. Later, the mercury is taken up by all protein molecules inside the brain and brain-cells: GAGs in the matrix, receptors on cell walls, enzymes, structural molecules and GTP, the enzyme which creates tubulin, enzymes of the citric acid cycle inside the mitochondria and more. The main volume of mercury is trapped in the connective tissue of the muscles, bones, ligaments outside the CNS. It is also trapped in the lymphatic tissue and adipose tissue. Overall, only a small amount reaches the brain. The amount is responsible for most ASD symptoms.

The order of the ethyl mercury elimination protocol is very important. It is paramount that the body is treated by clearing the excretory organs before treating the brain. If the brain is treated first, the toxins from the body will move into the brain and the patient will be retoxified. Mercury and lead have a lethal synergistic effect. Use an agent first that removes only lead, and then the stronger agents. Start with EDTA (intravenous or suppository). Hair testing is inexpensive and non-invasive. It can be helpful to monitor progress. Since it does not require provocation, it can be done in very sensitive

or ill children without concern. When the hair test is negative for lead, start removing the bulk of mercury first which is not bound in the central nervous system. IV or IM DMPS and Vitamin C, DMSA orally, Zn-DPTA, and chlorella are ideal, says Dr. Klinghardt.

Many parents have found the child's personal protocol ultimately by trial and error, since many of the commonly used expensive laboratory tests do not lead to real improvement. Defects in the methylation-sulfation- and acetylation-detox pathways are shared by most ASD children and the available solutions are limited, but should all be tried. Autonomic Response Testing can individualize protocols. Mercury affects every aspect of biochemistry. Without addressing the mercury toxicity at the deepest level, no permanent progress is made with the biomedical approach.

Dr. Cowden's laser energetic detoxification is a new revolutionary and effective approach that should be included in every child's detox regimen, says Dr. Klinghardt. In this method laser light passes through a clear glass vial of homeopathic substance and sweeps the patient's body so the body can release and/or resolve substances that are affecting the patient. The substances to be swept are determined by kinesiology or electrodermal screening. Toxins, allergens, autoimmunity and even infections may be resolved. A treatment takes 32-52-3 minutes. According to Dr. Cowden in his presentation, LED is a safe and highly effective rapid detoxification therapy that removes many toxins in 24 hours that otherwise might take 50-100 days to release. The process can be very helpful in treating autism.

Infections and Infestations

The most common opportunistic infections in ASD are measles virus persistent in the intestinal tract, Borna viruses (responsible for psychiatric symptoms), Giardia and amoebas, roundworm threadworms and tapeworms, herpes viruses, strep infections and consequences, Lyme and co-infections, molds and fungi and mycoplasma.

Many homes in the U.S. have elevated levels of mold including aspergillus, cladosporium, stachybotrys, caused by poor building plan and materials. Dr. Klinghardt suggests getting an indoor air quality inspection, using a propolis room vaporizer which kills most known indoor molds, bacteria and viruses, clean bedding regularly and vacuum and sweep bedrooms often.

"Almost every child with ASD we have tested so far has been positive for Lyme disease," says Dr. Klinghardt. "Always suspect this when the child is not responding to typical protocols." Products Dr. Klinghardt explores with patients include PC-Samento and PC-Noni from Biopure, Nutramedix Banderol and Cumanda, SpiroNil/Teasel Root from Jernigan Neutraceuticals, PhytoLymes by Nutriwest, Lyme frequency CD's, KMT technology, LymePlex spray by King Bio, Andrographis paniculata which is protective against neurodegeneration and excreted rapidly via the kidneys,

Polygonum cuspidatum which increases brain microcirculation and decreases autoimmunity, and Rizoles from BioPure which are fairly recently discovered compounds that form when natural oils are ozonated for extended periods of time. Depending on the organic plant oil used, the time of exposure to pure medical grade ozone gas, voltage and amperage in the high-voltage chamber, different compounds with unique properties are formed. The rizoles were developed by Professor and chief of the department of Chemistry Gerhard Steidl of the University of Erlangen, Germany.

Clinical Tips

Clinical tips for parents and practitioners were offered by Amy Derksen, ND. Common treatments she uses for children with autism include:

- Parasites: BioPure organic freeze dried garlic, Vermox/Mebendazole (100 mg BID 3 cays, then repeat after 3 weeks), Biltricide (compounded 150 mg QID for three days, then repeat after 3 weeks, or full dose for Bilharzia: 600 mg tbl: 3 tbl tid for 3 days, repeat after 3 weeks). Tinidazole (500 mg BID for 10 days, usually following with Iodoquinol 650 mg tid for 3 weeks, Alinia (1000 mg bid for 3 weeks is the optimal dose to treat CNS larvae, otherwise 500 mg bid, 3 days and repeat).
- Lyme: PC-Samento, PC-Noni, andrographis, banderol, smilax, stephania root, Japanese knotweed, SpiroNil, Cumanda, PhytoLymex by Nutriwest.
- Fungal: Diflucan 200 mg for 1-3 months continuous (this also helps to address Lyme), Nystatin, Amphotericin B, GSE, Colloidal Silver, Florastor/saccharomyces, Beta Glucan probiotic, Pleo Pseu or Nig for environmental mold reactions.
- Tonsils: Pleo Not and/or Pleo San Pseu (5 drops, TID for 6 weeks followed with Pleo Sancom for 1 year). Tonsilla comp, Lymphomyosot, Itiris, have a full ENT evaluation for chronic enlarged tonsils since this backs up drainage from the brain, King Bio Tonsil Cure and CS lymph/Hodgkins.
- Kidneys: This organ is an absolute most to support if you are chelating metals. Renelix, Matric Electrolytes, Solidago, acupuncture/neural therapy, K Drain by Transformation Enzymes, Energen C, M Water
- Metals: TD-DMPS, TD-DMSA, BioPure Chlorella pyrenoidosa or CGF Chlorella, BioPure CGF liquid, Bio Pure Cilantro tincture, Zeolite tincture, NDF, Heavy Metal Detox by Transformation Enzymes, multi-minerals (liquid forms seem easiest for kids to tolerate). Toxaway foot bath, Biopure phospholipid exchange (oral). Designs for Health PaleoGreens, Nutramedix Algas Metal Detox, Metal Free spray, PCA-Rx, PectaSol Chelation Complex.
- General Detox Support: glutathione (nebulized, IV or lipocetical), B12/folic acid from AMT, Dr. Vinitsky's protocol or Dr. Neubrandner's protocol for methylcobalamin, sub-cutaneous injections to keep

bowels moving. Fibercleanse for toxin binding (www.newsunhealth.com). Cod Liver Oil by Carlsons or Nordic Naturals (especially the DHA Junior by Nordic Naturals), krill oil (NKO), BioBuilder by Body Health amino acids that easily are absorbed. Designs for Health PaleoCleanse and Amino D-tox, Metagenics Fola Pro, Scientific Botanicals Folirinse.

- **Virusus:** Biotics Bio-A-emulsion forte Vitamin A, Monolaurin, Olive leaf, Mycophyto Complex as a tea, Amy Yasko's RNA remedies, Valtrex, Trifal by Ayush (also acts as digestive support), Thymactiv, Lysine, fish oil, coconut oil, Pharmax selenium liquid, DFH allicillin liquid.
- **Multi Vitamins:** Brainchild Nutritionals Spectrum Support II, Super NuThera, Liquid Health Attention, Nordic Naturals gummy vitamins
- **Probiotics:** Beta Glucan Probiotic by BioImmersion, Klaire Ther-Biotic Complete, PCHF Acidophilus Bifidus, VSL#3, Metagenics Ultra Bifidus, BioK, Pharmax HLC Mindlinx
- **Digestive Enzymes:** Houston Nutraceuticals AAFP Peptizyde or Zyme Prime, Kirkman DPP4, Pharmax glutenzyme, Tyler Similase Jr.
- **Minerals:** Minerals of Life by World Health Mall, Nutramedix Trace Minerals Relax, Comprehensive Minerals by Cardiovascular Research, Pharmax Trace Mineral Liquid, Biotics Multi-mins.
- **Digestive Support (non-enzymes):** Designs for Health GI Revive, ground flax seeds, Allergy Research Mastics, vitamin A (measles), PCHF Vermex and Bowel Pathogen Nosode, Florastor.
- **Brain Support:** MHP Brain Liquid, NeuroCalm, Serotonin/Dopamine, PCHF-Brain Enhancement Liquid, NeuroRecover liquid, Serotonin/Dopamine, Neuro Relax, Neuro Calming, Heel Coenzyme compositum, Thalamus, Body Health Bio Builder amino acids, Designs for Health sublingual B6, phosphatidyl serine, Carniclear, Electrolyte synergy.
- **Liver:** Hepatics, Dandelion root, burdock, ultrathistle (milk thistle product), castor oil packs, coffee enemas (not on very young children).

- **Immune Support:** ambrotose, coriolus, banderol, stem enhance, thymactiv, LDN.

The conference also featured products sold by BioTools, including microcurrent devices. Microcurrent devices use alternating currents and low amperage. When a current is pulsed, a multitude of biological effects can be achieved, dependent on the frequency, shape of the wave, pauses between the waves, length of the individual wave and variation of other parameters. Microcurrent has been shown to increase intracellular ATP levels, dissolve deep scar tissue, trigger the formation and release of numerous growth factors and stimulate new nerve growth and tissue healing. KMT technology focuses on the vasodilation of lymph and blood vessels, downregulation of the sympathetic nervous system, microbial growth inhibition and toxin mobilizing effects.

BioTools offers an air activation system that Dr. Klinghardt says is very effective for oxygenating the whole system. It offers an ionic footbath that draws toxic and ionized substances out of the soles of the feet and energizes the autonomic nervous system and acupuncture meridians on the feet and turns on the detox function of the kidney, liver, gut and skin. BioTools also features devices that clean electrosmog from the home and more.

Attendees, including myself, left with a great deal of new, important information to put into action in their practices and with their children.

About the Author

Eve Greenberg, AM, LPC, CTN is a Licensed Counselor and Certified Traditional Naturopath who practices in Boulder, Colorado offering microcurrent therapy, color therapy, autonomic response testing, laser energetic detoxification, drainage, homeopathy, herbs and nutrition. Eve has studied with Dietrich Klinghardt, MD, Ph.D., Robert Zieve, MD, Lee Cowden, MD and Dickson Thom, ND. Eve has been an adjunct faculty member for several colleges including Naropa University in Boulder. Prior to Boulder, Eve was homeopathic medical assistant to Robert Zieve, MD, which whom she is still affiliated. Dr. Zieve is an integrative physician practicing in Prescott and Scottsdale, AZ.

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