

Dr. Paul G. Varnas & WholeHealthAmerica.com present

THE BETTER HEALTH NEWS

JANUARY, 2015

PARKINSON'S & CHEMICAL EXPOSURE

HAPPY NEW YEAR

**THYROID, THE BRAIN 2
AND THE
ENVIRONMENT****3 STEP 4
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SYSTEM****CHEMICALS AND 6
DRUG-RESISTANT
BACTERIA**

Parkinson's disease may be, in part, due to environmental issues, according to an article, ["Environmental Risk Factors in Parkinson's Disease", Russell, Tanya, Food of Chemical Toxicology, 1992;30(4):343-348.]. Parkinson-like symptoms can be caused by exposure to chemicals like phenothiazines and butyrophenones. In the early 1980's drug abusers who actually injected themselves with the chemical 1-methyl-4-phenyl-1,2,3 6-tetrahydropyridine (MPTP) developed, within a few days, a severe motor disorder resembling the advanced stages of Parkinson's disease. This drug has been used as a model in studying Parkinson's disease. The compound paraquat has been studied also since it has a similar structure to MPP+. There is some anecdotal evidence of pesticide-induced Parkinson's disease, as well as a significant correlation in some cases between rural residents and early onset Parkinson's disease, and between childhood well water drinking and early onset Parkinson's disease. Although the latter are still debatable. In another study there was some relationship between working in a paper mill or an orchard and the correlation with Parkinson's disease. The investigators suggest that the industrial chemicals used in the paper mills and orchards

might be related to the cause and development of the disease.

According to an article, ["*Oxidative Stress in Parkinson's Disease*," Jenner P, Ann Neurol, 2003;53(Suppl 3):S26-S38.], oxidative stress may be a factor in Parkinson's disease. There is convincing evidence that nitric oxide reacts with superoxide to produce peroxynitrite and ultimately hydroxyl radical, which can lead to dopamine cell degeneration in Parkinson's disease. Oxidative stress is associated with mitochondrial dysfunction, excitotoxicity, nitric oxide toxicity and inflammation. Oxidative stress can impair ubiquitination and degrade proteins directly. Products of oxidative stress can damage the 26S proteasome. Impairment of proteasomal function leads to free radical generation and oxidative stress. Oxidative stress and the release of products of oxidative stress are a part of dopaminergic cell death. There is little doubt that oxidative stress leads to an increase in oxidative damage in the substantia nigra. Oxidative stress can be an initiator and a component of dopaminergic cell degeneration in Parkinson's disease.

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THYROID, THE BRAIN AND THE ENVIRONMENT

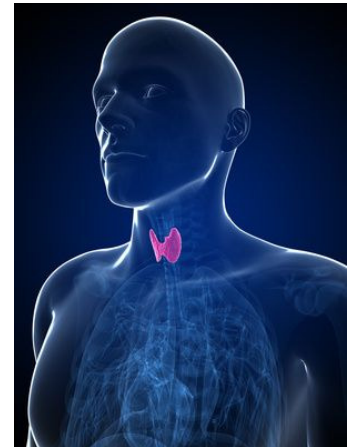
An article in *Environmental Health Perspective* (June 2000;108(Suppl 3):433-438) reviewed the importance of the thyroid for brain function and the effect environmental chemicals have on both the thyroid and the nervous system. Proper thyroid function is especially important for brain development in the fetus and during the first two months after birth.

Animal studies have shown that exposure to PCBs and dioxins create abnormal neurologic function and impaired thyroid function. Chemical exposure can enlarge the thyroid, and decrease T4 levels. Many environmental toxins mimic thyroid hormones and bind to proteins used to transport thyroid hormone, competing with thyroid hormone and altering function.

Hypothyroidism can cause high cholesterol and heart disease. Now, research appearing in the *Annals of Internal Medicine* (2000; 132 (4):270-8) shows that subclinical hypothyroidism and thyroid autoimmunity can also increase the risk of heart disease. Could it be that your patient who is on

cholesterol lowering medication should actually be getting thyroid support? Hypothyroidism can be responsible for miscarriages. If an expectant mother has hypothyroidism and doesn't miscarry, her baby will have a lower IQ than if her thyroid was normal [According to a study published in the *New England Journal of Medicine* (1999;341:549-555, 601-602),]. Problems losing weight, dry skin and immune system problems may have the thyroid dysfunction at their root.

An article, ["Thyroidal Dysfunction and Environmental Chemicals-Potential Impact on Brain Development," Porterfield SP, *Environ Health Perspect*, June 2000;108(Suppl 3):433-438] discussed the affect PCBs and dioxin have on the thyroid. Polychlorinated biphenyls (PCBs) and dibenzo-p-dioxins (dioxins, 2,3,7,8-tetrachlorodibenzo-p-dioxin) have been shown to have neurotoxic effects and to alter thyroid function during critical periods of thyroid hormone-dependent brain development. Thyroid hormones are essential for normal brain development during a



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critical period beginning in utero and extending through the first 2 years postpartum. Thyroid hormones regulate neuronal proliferation, migration and differentiation in specific areas of the brain during definitive time periods. Thyroid hormones are important for normal cytoskeletal assembly and stability. The cytoskeletal system is critically important for migration and neuronal outgrowth. Thyroid hormones regulate the development of cholinergic and dopaminergic systems which serve the cerebral cortex and hippocampus. In animal models of exposure to environmental organohalogenes, such as PCBs and dioxins, abnormal thyroid function and neurologic impairment was noted. In animal models, most exposures to these chemicals result in thyroid enlargement and reduced serum T4 levels with normal T3 levels. Some of these xenobiotic compounds resemble natural thyroid hormones and have high affinity to thyroid hormone-binding proteins, such as transthyretin. These toxicants may alter thyroid hormone synthesis and secretion, by either acting directly on the thyroid gland or by acting on the pituitary or hypothalamic control of TSH secretion. Additionally, these toxicants could compete with thyroid hormone for serum-binding proteins, potentially impairing tissue hormone delivery. They could also compete with thyroid hormones for membrane carrier systems and inhibit tissue uptake of the hormones. Thyroid toxicants could either be agonists or antagonists for thyroid hormone receptor binding. Lastly, these toxicants could alter the production of proteins, which act as coactivators or corepressors that regulate transcription of thyroid hormone-regulated genes.



Biotics Research Corporation, in effort to further the education of Healthcare Professionals and their patients, is pleased to offer several significant and useful practice building tools, all included in a weekly email, the **Biotics Bulletin**.

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3-STEP BIODETOXIFICATION

The 3-Step Biodetoxification program from Biotics Research is a very useful tool for practitioners. Unlike many detoxification programs, the patient can work and lead a normal life while on the program. It is a useful “reset” button for your patients with allergies, sinusitis, digestive issues and many other chronic health problems.

Step 1-Decreasing Inflammation

There are 2 versions of Step 1. One is for **chronic symptoms** and the other is for **acute symptoms**. This phase of the detoxification lasts for one week. The patient follows a specific diet during this phase (call Biotics Research 800-231-5777 for the manual).

If the patient is in acute pain, the recommended product is **Intenzyme Forte™** (between six and 10 tablets 3x/day on an empty stomach). Also recommended is two **Bio-Allay** capsules per day as well.

If the patient is in chronic pain, recommend **Bromelain Plus CLA™** (four tablets, 3x/day on an empty stomach) and **Beta-TCP™**, (two tablets, 2x/day).

Make sure that the patient has followed the diet and supplement regimen from Step 1 before allowing them to proceed to Step 2.

Step 2-Metabolic Cleansing

Step 2 lasts between 10 and 20 days. In this step, the patient makes a drink made with **NutriClear®**, plus **Pea Protein Isolate**.

NutriClear® utilizes a pea protein isolate base, and is a hypoallergenic formula. It is used to support the normal detoxification pathways, for metabolic clearing, as well as for healthy GI function. **Pea Protein Isolate** adds additional protein for satiety. This combination is used as a meal replacement for breakfast and as a snack. The patient also takes **BioDetox Packs™**, one three times each day. Each packet contains 2 tablets of **A.D.P.®**, 2 tablets of **Bromelain Plus CLA™**, 2 capsules of **Optimal EFAs Caps®**, 1 capsule **MCS-2™**, 3 tablets **Beta-TCP™**, and 1 tablet of **Livotrit Plus®**. During this phase the diet becomes a little stricter. Call Biotics Research for a booklet detailing the program. They can also provide you with educational CDs and DVDs for your patients.

Step 3-Regeneration and Repair

This phase lasts 30 days or longer. The patient takes basic supplementation to help heal the intestinal tract. This includes **ProMulti-Plus**, which is a high potency multiple from Biotics Research, along with **Optimal EFAs Caps®** and **BioDoph-7 Plus®** from Biotics Research are recommended. The patient can also take other supplements as needed. For example, someone with joint pain may take **Chondrosamine-Plus®** and **KappArest™**. If there is a vitamin D deficiency, **Bio-D-Mulsion Forte®** can also be used. The patient also continues to use **NutriClear®** as a snack, or as a meal replacement (usually for breakfast), if desired.

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CHEMICALS AND DRUG RESISTANT BACTERIA

A recent report, ["Dental Fillings, Lawn Chemicals May Contribute to Drug Resistance", Rosenthal, Marie, Infectious Disease News, July 1993;4/Antimicrobial Agents Chemotherapy, 1993;37:825-34] noted spraying lawns with chemical fungicides and bacteriocides may contribute to the resistance of some bacteria to antibiotics. Lawns treated with chemical fertilizers have a higher incidence of multiple-resistant bacteria as compared with untreated lawns. Treated lawns are reservoirs for multiple drug resistant bacteria and can reduce the quality and quantity of agricultural products, increase the genetic pool of infectious drug resistance and possibly cause problems in the treatment of life-threatening bacterial infections. In a study published in Antimicrobial Agents and Chemotherapy, researchers cited amalgam dental fillings as a factor in the

development of antibiotic-resistant bacteria in the oral and intestinal flora. These researchers examined the oral and intestinal flora of 6 adult monkeys prior to and after filling their teeth with amalgam fillings and found mercury resistance to several bacterial including oral streptococci, Enterobacteriaceae and enterococci. This is the first report of mercury resistance to streptococci. The bacteria were also resistant to 1 or more of the following antibiotics: ampicillin, tetracycline, streptomycin, kanamycin and chloramphenicol. When the amalgam fillings were replaced with glass ionomer fillings, resistance was found for 5 weeks following the replacement. The researchers reported a high correlation between the incidence of mercury resistance with resistance to multiple antibiotics. Mercury released from dental fillings enriched mercury and antibiotic resistant plasmids in normal bacterial flora.