## Easing Menopause and Reversing Lyme Disease with UVBI

## (Ultraviolet Blood Irradiation Therapy)

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How Oxygen and Light Can Heal The fourth element of Dr. Bock's approach to reversing Ada's Lyme disease is called oxidative therapy and photo-ox therapy. The first involves oxygen, the second, light. An oxidative therapy delivers a measured amount of powerful oxidants (highly reactive molecules involved in energy production) in the form of medical ozone (03) or hydrogen peroxide (H202).

For example, white blood cells will use intravenously infused hydrogen peroxide to destroy undesirable microorganisms, explains Dr. Bock. He notes that oxidative therapies are presently controversial, not because they are harmful, but because they are not well understood by conventional doctors.

Photo-ox therapy refers to a combination of intravenous hydrogen peroxide or ozone and ultraviolet blood irradiation (UVB). The two together produce a synergistic effect which is why Dr. Bock finds the combination especially useful for his most chronically ill patients; in Ada's case, it was an alternative (or complement) to the antibiotic regimen, as the oxygen the therapy delivers helps kill the pathogenic bacteria.

UVB appears to be highly effective in treating persistent viruses and antibiotic-resistant bacteria, says Dr. Bock. Not only can it kill unwanted microbes, but it adds oxygen to the system, improves the energy producing activities (called oxidative metabolism) at a cellular level, and, paradoxically, elevates the levels of antioxidants capable of fighting free radicals.

During the UVB treatment, a small amount of the patient's blood (100 cc or 1/2 cup) is drawn from the body and exposed to ultraviolet energy; this energy changes the molecular structure of the oxygen in the blood sample to one that is therapeutically more valuable. When the irradiated blood is reinfused into the patient, this altered form of oxygen circulates throughout the body. Ada received photo-ox treatments three times weekly -- 15 treatments in all -- and during this time Dr. Bock reduced her antibiotic intake. "When you treat Lyme disease with antibiotics in a patient who has yeast infections, the Candida infestation gets worse. But when you use oxidative therapies, you can subdue and eliminate both the Lyme bacteria and the Candida."

## **Quick Definition**

Oxygen therapies involve the use of oxygen and can be used in various forms to promote healing and to destroy pathogens in the body. Oxygen-based therapies treat a variety of conditions, including cancer, infections, circulatory problems, chronic fatigue syndrome, arthritis, allergies, and multiple sclerosis. There are two principle types of oxygen therapy, classified according to the chemical process involved. Oxygenation is the process of enriching the oxygen content of the blood or tissues. One oxygenation therapy is called hyperbaric oxygen therapy, which introduces oxygen to the body in a pressurized chamber. Oxygenation employed under strictly controlled conditions can have positive therapeutic effects. The second type of oxygen therapy is called oxidation, which is a chemical reaction occurring when electrons (negatively charged particles) are transferred from one molecule to another. Not all oxidants are free radicals. Although uncontrolled oxidation can be destructive -- as is the case when free radicals are produced in excess -- it can also be therapeutic when carefully used on weak and devitalized cells.