

Nutrients for the World

by Lark Lands and Bob Lederer

Slowing disease progression in a simple way that promotes health and, ultimately, prevents illness and death is the holy grail in the world of AIDS. The impressive findings of three recently completed clinical trials tell us that drugs—with all their toxicity and expense and requirements for medical monitoring—are not the only way to accomplish that. In the two long-term studies which were carried out in the developing world, greatly reduced illness and death were seen in HIVers given simple nutrient supplements. In the third shorter study, done in the U.S., substantial increases in CD4 cells were seen. These studies confirm years of previous research that has shown that HIVers with the highest levels of nutrients have the slowest disease progression. In fact, in a very large University of California at Berkeley study it was shown that those with the slowest disease progression had a level of nutrients not achievable by diet alone—in other words, the people who did the best over time were using nutrient supplements.

Two of the recent studies were done in developing-world populations without access to drugs. In fact, none of the participants were using highly active antiretroviral therapy (HAART). In the fall of 2003, the journal *AIDS* published the findings of a study of 481 Thai men and women living with HIV which found that among those who took a high-dose 21-nutrient supplement for a year, there were 63 percent fewer deaths among the group with less than 200 CD4 cells than in those on placebo—and an even more dramatic 74 percent fewer deaths for those with under 100 CD4 cells.

In this study, the benefit wasn't achieved by raising CD4 counts or lowering viral loads. According to Andrew Tomkins, M.D., the director of the London-based Center for International Child Health which helped run the study, "The likeliest theory is that the high doses of antioxidants in the mixture helped reduce tissue damage such that people died less frequently." Antioxidants are nutrients which counter the high level of body-damaging oxidative stress that is present in HIV disease. Dr. Tomkins believes that these antioxidant nutrients may help improve overall immune cell *function* even when the *numbers* of cells don't change. In their study's abstract, the researchers conclude by saying, "This could have important public health implications in the developing world where access to antiretrovirals remains poor."

In July 2004, an eight-year study of 1,078 Tanzanian pregnant HIV-positive women brought more good news—and to the pleasure of those of us who have been teaching the importance of nutrient supplementation in HIV disease for many years, generated global headlines. The study showed that those on a combo of three potent vitamin supplements had a 27 percent lower risk of death than those on placebos. The multivitamins also slowed disease progression by 50 percent. In this study, CD4 counts were boosted and viral loads lowered significantly in the supplement-taking group. And all this came at a yearly per-person cost of approximately \$15.00 U.S.

The third study, presented at a major AIDS conference in February 2004, looked at 40 U.S. HIVers who were already taking HAART (a combo containing either d4T or ddI) and added to their programs either a 33-item high-dose nutrient formula, or a placebo. After a mere 12 weeks, the vitamin takers got a 24 percent jump in CD4 counts, whereas those on placebo saw only 2 percent more of these key immune cells. This study's findings strongly counter the often-heard belief of many North American physicians that vitamins aren't important for well-fed HIVers.

While each study's nutrient formulas were different, B vitamins and antioxidants provided the common thread. All three contained B complex along with vitamins C and E; the Thai trial added minerals (including zinc, magnesium, and selenium) and other vitamins (including A, D, and K) commonly found in multiples; and the U.S. study added those plus alpha-lipoic acid, N-acetyl-cysteine (NAC), and acetyl-L-carnitine. The latter, along with higher-than-standard dosages of all the ingredients, are what study director Jon Kaiser, MD, an HIV specialist in California, credits with causing "the significant CD4 rises in such a short time." None of the studies reported any side effects from the nutrients.

The bottom line? It is time for AIDS activists everywhere to call for spreading the word that a combination of improved nutrition through diet and supplementation can make a huge difference in the lives of HIVers everywhere. In a world where the vast majority of people living with the virus do not yet have access to antiretroviral drugs, the use of inexpensive, non-toxic nutrients to boost immune function and help improve overall health and functioning while delaying disease progression could, quite literally, be lifesaving. Harvard nutrition professor Wafaie W. Fawzi, Ph.D., who led the African study, says, "Introducing multivitamin supplements delays the time when antiretroviral therapy is necessary." Richard G. Marlink, M.D., who helps run treatment programs in six African countries as director of the Harvard AIDS Institute and scientific adviser to the Elizabeth Glaser Pediatric AIDS Foundation, told the New York Times, "This is exciting because it costs literally pennies and can ward off the time when you need to begin treatment with expensive and toxic drugs." And he went on to say that the studies would prompt him to recommend vitamins for his HIV-positive patients.

The facts are clear. It is far past time for nutrient supplements to be considered a basic part of HIV care for all. We know based on a large number of studies that nutrient deficiencies begin very early and adversely affect immune function, while also causing needless symptoms. Even in countries where HAART is available, the use of nutrient supplements throughout the disease process could help boost the immune system, slow disease progression, and delay the need to start drugs with all the side effects and complications that they can create. In the developing world, while we continue to work to make drugs ultimately available to all in need, this far less expensive, non-toxic, and much simpler therapy is something that we should all work passionately to provide to those living with HIV throughout the world.

We can do this in two ways. The first is by improving overall nutrition. One way to do this is by teaching people how to create permaculture gardens, a simple tool that can help provide nutritious organic food for those who might otherwise not have it. In the spring of 2003, five members of the Saltspring Organization for Life Improvement and Development (SOLID), a group of Canadian activists who are working with the people of the Vaal Triangle of South Africa, established a small permaculture garden there which now provides five families with fresh produce—a simple, easily achieved goal that has had a huge impact in this area with huge rates of unemployment, poverty and HIV infection. SOLID is now working to establish a large-scale permaculture food garden there to provide food for hundreds of families, a project that could be used as a blueprint throughout the developing world. Once the food is present, we can, in very simple ways, teach people how to make the best food choices for improving nutrient status.

The second urgent need is to work in every possible way to make high-potency nutrient supplements available to all those living with the disease. This is not something that should replace the work we are all doing to make drugs available, but it should become an integral part of our work. The goal should be to obtain funding for multivitamin/mineral supplements to be produced inexpensively in the countries where they will be used, and then universally distributed.

For more information on all the ways in which nutrients can protect the body and positively affect the lives of HIVers, see Lark Lands' *Using Nutrients to Protect the Body and Counter HIV Symptoms and Drug Side Effects*; available at www.larklands.net.

LARK LANDS is a medical journalist, editor, and long-time AIDS treatment educator and advocate. A pioneer in promoting the importance of nutrients in HIV/AIDS, her articles have been widely reprinted in AIDS newsletters and on AIDS websites. **For additional fact sheets, including in-depth information on eliminating drug side effects and other symptoms, as well as information on the "Living Well, Not Just Longer" seminar, go to www.larklands.net** The 100's of articles written in her years with *POZ* magazine (as Science Editor) and with CATIE's *The Positive Side* magazine are at: www.poz.com and www.catie.ca

BOB LEDERER is a radio journalist, an AIDS writer and editor, and a long-time treatment activist. He is a cofounder of ACT UP's Drugs for Africa program, and its Alternative and Complementary Treatment Committee.

References for the studies discussed above:

Thailand study:

Jiamton S, Pepin J, Suttent R, Filteau S, Mahakkanukrauh B, Hanshaoworakul W, Chaisilwattana P, Suthipinittharm P, Shetty P, Jaffar S. A randomized trial of the impact of multiple micronutrient supplementation on mortality among HIV-infected individuals living in Bangkok. *AIDS*. 2003 Nov 21;17(17):2461-9.

Tanzania study:

Fawzi WW, Msamanga GI, Spiegelman D, et al. A randomized trial of multivitamin supplements and HIV disease progression and mortality. *N Engl J Med* 2004;351:23-32.

U.S. study:

J Kaiser, J Ondercin, G Santos, G Leoung, S Brown, M Mass, and M Baum. Broad-spectrum micronutrient supplementation in HIV-infected patients with dideoxynucleoside-related peripheral neuropathy: A prospective, double-blind, placebo controlled trial. 11th Conference on Retroviruses and Opportunistic Infections, San Francisco, February 8-11, 2004 [abstract 494].

University of California at Berkeley study:

Abrams B, Duncan D & Hertz-Picciotto, I. A prospective study of dietary intake and acquired immune deficiency syndrome in HIV-seropositive homosexual men. *JAIDS* 6:949-958, 1993.