

Orthomolecular Medicine: The Optimal Definition

A lot of terms can be imagined to describe the treatment of illness with nutrition and dietary supplements; there is only one that is appropriate: orthomolecular medicine. Many practitioners are reluctant to use the word 'orthomolecular' to make known what they are practicing because the term has a 'poisoned' history and they prefer to use other terms, among which 'nutritional medicine' is very safe and probably the most popular. However, history tells us that the introduction of any new paradigm is inevitably accompanied by opposition and therefore with 'poisoning'. If that weren't the case, the new paradigm would prove worthless, because it would not contain any danger for the establishment.¹

The proclamation of a new concept demands a very profound, optimal definition and a proper name. Moreover, having a 'big name' connected to it is very valuable. 'Orthomolecular medicine' fulfills these prerequisites. Linus Pauling, the only person to receive two unshared Nobel Prizes, defined, in his 1968 *Science* article, the term 'orthomolecular' based on the work of Abram Hoffer: "Orthomolecular psychiatric therapy is the treatment of mental disease by the provision of the optimum molecular environment for the mind, especially the optimum concentrations of substances normally present in the body."²

This article is an anchor in medical history. I recommend everyone to read and reread this article to get a full notion of what orthomolecular medicine means, especially now with all kinds of new developments that are considered as 'nutritional medicine', but which do not fall within the definition of 'orthomolecular medicine'. The treatment of hypercholesterolemia with low fat and 'lite' products; treatment of cachexia with energy rich food; treatment of osteoporosis

with calcium supplements or with milk; these may all be 'nutritional medicine', but they don't fall within the definition of orthomolecular medicine.

For the future, with nutrigenomics and genetic modification of food in sight, the term 'orthomolecular' will be even more important. 'Phood', a contraction of 'pharmaceutical' and 'food', will become available, such as broccoli genetically engineered to have immunologic properties so that large populations can be immunized efficiently against a certain viral infection. Nutrigenomics and pharmacogenomics are on the increase; it is mandatory that orthomolecular medicine remains the anchor in this turbulent development.

In a 2002 article Bruce Ames wrote about correcting genetic defects with high dose vitamin therapy.³ Ames' article was an elaboration of the orthomolecular concept of Pauling on the basis of new data regarding the human genome. He referred to the *Science* article of Pauling. Let's join him on this path and keep orthomolecular medicine in the forefront.

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References

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