In 1951, a Canadian psychiatrist named Abram Hoffer, with a PhD in agricultural biochemistry and an interest in research, met another psychiatrist named Humphrey Osmond. While in Britain, Dr. Osmond and Dr. John Smythies had hypothesized that a toxic compound, which was related to adrenalin, was responsible for the hallucinations found in schizophrenia. Psychoanalysis, not biochemistry, was the sanctioned focus for psychiatry at the time; but Hoffer and Osmond were practicing in Saskatchewan, which had no medical school to uphold that prejudice. Instead, the province had a mental health care system in desperate need of upgrading, government funding for psychiatric research, and far too many patients suffering from schizophrenia.

In Vitamin B-3 & Schizophrenia, Dr. Hoffer tells the story of their research that led to "a unified hypothesis of schizophrenia which united biochemical and psychosocial factors." Their pioneering work became known as orthomolecular psychiatry, which uses "optimum (often large) doses of molecules naturally present in the body."

Building on the Osmond-Smythies Hypothesis, Hoffer and Osmond began looking for an indole, related to adrenalin, that had a hallucinogenic effect on the brain. Then they learned about adrenochrome, which seemed to fit the profile, from Professor D....
Orthomolecular psychiatry is a scientific approach for healing mental illness that aims to correct underlying biochemical dysfunctions and imbalances, and to reestablish an optimal biochemical milieu within the mind and body. Therapeutic dosages of nutritional supplements, appropriate diet, and safe detoxification are the primary tools used in orthomolecular psychiatry to support the body’s own ability to heal. Dr. Linus Pauling, a two-time winner of the Nobel Prize, coined the term “orthomolecular” to express the idea that the right amounts of specific molecules can correct disordered thought. Orthomolecular psychiatry is one of two branches of psychiatry currently advocating chemotherapy for schizophrenia. The other branch is toximolecular psychiatry. There are vast conceptual differences between the two and great differences in efficacy for the patient. Toximolecular psychiatry advocates the use of sublethal doses of agents not normally found in the body. Their use has not significantly improved patient recovery rate over that occurring naturally, and demands a terrible price from the patient in the form of incapacity to work and irreversible toxicity. Single drugs are used for this purpose. Orthomolecular psychiatry is the use of orthomolecular medicine for mental illness. The approach uses unorthodox forms of individualized testing and diagnosis to attempt to establish an etiology for each patient's specific symptoms, and claims to tailor the treatment accordingly, using a combination of nutrients, dietary changes and medications that are claimed to enhance quality of life and functionality as well as to reduce or eliminate symptoms and the use of xenobiotic drugs. Scientific studies...